Health-related quality of life in patients with myocardial infarction: trends and predictors

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CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Kyoungrim Kang declare that this thesis, is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Faculty of Health at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise reference or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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ABBREVIATIONS

Abbreviation	Full term
ACS	Acute Coronary Syndrome
AMI	Acute Myocardial Infarction
B-IPQ	Brief Illness Perception Questionnaire
BMI	Body Mass Index
CABG	Coronary Artery Bypass Grafting
CHD	Coronary heart disease
CHF	Chronic Heart Failure
CK-MB	Myocardial Band fraction of Creatine Kinase
COPD	Chronic Obstructive Pulmonary Disease
CVA	CerebroVascular Accident
CVD	CardioVascular Disease
DASI	Duke Activity Status Index
DS-14	14-item type D Scale (DS-14)
EF	Ejection Fraction
ESSI	ENRICHD Social Support Instrument
GSE	General Self-efficacy
HADS	Hospital Anxiety and Depression Scale
HCS	Health Complaints Scale
HRQoL	Health-Related Quality of Life
IPQ	Illness Perception Questionnaire
ISI	Insomnia Severity Index
LVEF	Left Ventricular Ejection Fraction
MacNew	MacNew Heart Disease Health-Related Quality of Life Questionnaire
MCS	Mental Component Summary
MeSH	Medical Subject Headings Descriptor Data
MFI-20	Multidimensional Fatigue Inventory
MHI-5	Mental Health Inventory
MI	Myocardial Infarction
MIDAS	Myocardial Infarction Dimensional Assessment Scale
MLHFQ	Minnesota Living with Heart Failure Questionnaire
MOS-20	Medical Outcomes Study 20-item Short-Form General Health Survey
MQ	Shortened Maastricht Vital Exhaustion Questionnaire
MSQ-H	Multidimensional Support Questionnaire for Heart Patients
NHP	Nottingham Health Profile
NSTEMI	Non-ST Segment Elevation Myocardial Infarction
NYHA	New York Heart Association
PCI	Percutaneous Coronary Intervention
PCS	Physical Component Score
POMS	Profile of Mood States
PSP	Preferred Support Profile

PSS	PTSD Symptom Scale
PTSD	Posttraumatic Stress Dsorder
QLI-C	Quality of Life Index-Cardiac Version
QLMI	Quality of Life after MI questionnaire
QoL	Quality of Life
SAQ	Seattle Angina Questionnaire
SASRQ	Stanford Acute Stress Reaction Questionnaire
SD	Standard deviation
SF-12	Short Form-12
SF-36	36-item Short Form Health Survey
SHC	Somatic Health Complaints
SOC	Sense of Coherence Scale
STAI	Spielberger State-Trait Anxiety Inventory
STEMI	ST Segment Elevation Myocardial Infarction
TIA	Transient Ischaemic Attack
TIMI	Thrombolysis In Myocardial Infarction
WHO	World Health Organisation
WHOQOL-BREF	World Health Organization Quality of Life Instrument Abbreviated

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ABSTRACT

Helping people to “live longer and live better” is the principal goal of healthcare systems, that is, to enhance both survival and health status. As the survival of patients with myocardial infarction (MI) increases with effective and timely therapy, attentions turn to improving patients’ health status, recovery and quality of life. Health-related quality of life (HRQoL) consists of broad constructs that cover various aspects of patient life. Cardiac events, including MI often have negative effects on HRQoL, which is an important measure, independently predicting mortality and future cardiac events in patients with MI. It is also used as an indicator of therapeutic response in these patients. Assessment and monitoring of cardiac patients’ health status including their HRQoL has been highly recommended as a key measure of cardiovascular health.

The aim of this study was to examine the changes in HRQoL scores of patients over the acute phase of MI and determine significant predictors of HRQoL immediately after experience of MI (within a few days) and at three months after discharge from hospital. A longitudinal survey design was used. Participants were recruited from two tertiary hospitals in South Korea. A total of 150 study participants completed self-report questionnaires at baseline (within a few days after the experience of MI) and at the three-month follow-up (n=136). A Korean version of the MacNew Heart Disease Health-related Quality of Life Questionnaire (MacNew) was prepared, evaluated for construct validity and internal consistency, and used for assessing HRQoL.

Health-related quality of life scores improved significantly at three months follow-up, compared to baseline. Using the backward elimination stepwise regression analysis, six variables—financial status, physical activity, diabetes, a history of stroke, history of heart disease, and the DASS score—were significantly correlated with HRQoL of the patients at baseline. The significant predictors of HRQoL at the three-month follow-up, included age, gender, education level, self-assessed financial situation, diagnosis, left ventricular ejection fraction (LVEF), depression, anxiety, stress, illness perception, and social support. The findings of this study can help identify patients who are likely to experience diminished HRQoL after MI. Early psychological and social

support may reduce the influence of MI on patients' function and health status outcomes. While some factors cannot be modified or are difficult to amend, targeting the modifiable factors through psychosocial support, financial support, and improving patients' understanding of their disease and recovery process may have the capacity to improve their HRQoL and enhance clinical care.