The Effects of Postoperative Depression on Health-Related Quality of Life in Adults Following Open Heart Surgery: A Systematic Review

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BACKGROUND & PURPOSE

Approximately 1 in every 5 patients experiences a major depressive episode during recovery from open heart surgery (OHS) and approximately 50% of patient suffer from depressive symptoms (DS).1 Previous research has shown that higher levels of preoperative DS negatively impacts post-surgical health-related quality of life (HRQoL).2-7 The purpose of this systematic review was to discuss the effect of postoperative depression on health-related quality of life in adult patients following open heart surgery.

METHODS

A search of CINAHL, PubMed, ProQuest, Health and Medical Complete, ProQuest Research Library, and PsychINFO databases and a hand-search was performed with key words: (cardiac surgery) OR (open heart surgery) AND (depressive disorder) OR (depression) AND (quality of life) OR (QOL). A total of 291 articles were screened for eligibility using selection criteria: peer-reviewed research studies, English. Published 2005 to 2015, measured effects of postoperative depression on HRQoL, humans, 18 years and older, history of OHS, and no prior diagnosis of depression. Five articles were included and 1 article was added from a hand search bringing the total to 6. Samples ranged from 72 to 732 subjects (total 1,486) who were assessed for depression following OHS. Two reviewers methodologically and independently assessed each article and came to consensus using the MINORS scale. This scale is an objective measure that is used to evaluate the quality of comparative or non-comparative research studies.8 MINORS scores ranged from 11-14 out of 16 with a mean score of 12.2

OUTCOME MEASURES

The primary outcome measures used to assess depression were: Beck Depression Inventory, Depression Anxiety Stress Scales, Multiple Affective Adjective Check List, Center for Epidemiological Studies Depression Scale, and Cardiac Attitudes Index. HRQoL was measured by: 36-item Short Form General Health Survey, Medical Outcome Study, 12-item Short Form Health Survey, Duke Activity Status Index, and Duke Older Americans Resources and Services Procedures-Instrumental Activities of Daily Living. All 6 studies included a follow-up assessment, 2 less than 6 months and 4 greater than or equal to 6 months.2-7

RESULTS

There is moderate to strong evidence that postoperative depression negatively impacts HRQoL following OHS. Depression does not need to meet the clinical diagnosis criterion in order to adversely affect HRQoL outcomes. An increase in postoperative depression negatively impacts HRQoL independent of preoperative depression.2-7

CLINICAL RELEVANCE

HRQoL is positively associated with self-efficacy for and compliance with exercise.4 Clinicians should consider routine screening of all patients following OHS to identify DS and make appropriate referrals to implement early interventions.

RECOMMENDED SCREENING TOOLS

- Beck Depression Inventory (BDI)
- Cardiac Attitudes Index (CAI)
- Short-Form 36 (SF-36)

REFERENCES