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Treating Depression in Coronary Patients to Enhance Vocational Functioning

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In recent decades, there has been an increasing interest in the relationship between cardiovascular disease (CVD) and depression. Not only has depression emerged as a robust risk factor for CVD onset [1], but depression is common in patients who have experienced a heart event. Evidence suggests that approximately 15% of Myocardial Infarction (MI) patients experience major depression, with another 15-20% reporting mild to moderate depressive symptoms [2]. Indeed, MI patients with depression are at increased risk of mortality [3], morbidity and suicide [4]. These patients have also been shown to experience impaired health related quality of life (HRQOL) [5] and poorer CVD risk factor profiles, medication adherence [6], health service utilisation [7] and work outcomes [8]. In fact, depression has also been shown to predict negative return to work outcomes [9], productivity and absenteeism in cardiac populations.

The poor prognostic profile of cardiac patients experiencing depression has led to the development and evaluation of a range of depression treatment interventions. However, to date, much of the research in this area has focussed predominantly on promoting survival as well as CVD-and depression-related outcomes as indicators of program success [10]. While other outcomes have been evaluated (e.g. Social support [11], Cardiac functioning [12]), the impact of depression treatment on key functional outcomes including vocational, mental and physical functioning, has remained neglected by comparison.

Of the existing evidence to date, depression management has been shown to have a greater effect on mental, as opposed to physical, health functioning of cardiac patients. For example, Rollman et al. found that a telephone-delivered, stepped, collaborative care model for depression treatment ("Bypassing the Blues") improved mental but not physical HRQOL of Coronary Artery Bypass Grafting (CABG) patients after 8 months [12]. A meta-analysis further confirmed that the benefits of depression treatment in cardiac populations largely relate to mental HRQOL [13]. After pooling findings from the few studies in this area to include HRQOL as an endpoint, intervention effects were shown to be significant but of a lesser magnitude for physical HRQOL, at six month follow up [13].

Similarly, CVD-related lifestyle modification programs and cardiac rehabilitation have been shown to effectively improve physical HRQOL, amongst other outcomes. Smith et al. found a home based rehabilitation program for CABG patients to be associated with enhanced physical HRQOL after 12 months [14]. CVD risk reduction programs which include both targeted depression management have been recommended [15], with the view that impacting both components of HRQOL may thereby optimise functional outcomes in cardiac patients experiencing low mood, however this is yet to be demonstrated.

Because of the dearth of evidence regarding the effects of depression treatment on vocational outcomes of cardiac patients, it is therefore necessary to draw on evidence from research conducted in other patient populations. In one of the first trials of its kind, Rost et al. reported positive findings; primary care based depression management was shown to enhance work productivity and absenteeism of depressed patients over two years [16]. However, the evidence of its positive effects is inconsistent. For example, Simon and others (1998) found no benefits of a pharmacological and collaborative care model on vocational outcomes of depressed primary care patients [17].

It has recently been argued: "It would be expected that treating depression and anxiety [in cardiac patients] would lead to improved quality of life and reduction in days of restricted activity and days missed from work. This remains to be demonstrated in a clinical trial, however" [18]. It is therefore recommended that future trials in this area go beyond the analysis of traditional endpoints to assess the impact of such interventions on key vocational outcomes of coronary patients. As the global burden of CVD increases, improving these outcomes could lead to better patient-, organisational-and economic-related outcomes. Cost-effectiveness evaluations will be crucial in determining the broader benefits and scalability of these kinds of interventions.

References

1. Van der Kooy K, van Hout H, Marwijk H, Marten H, Stehouwer C, et al. (2007) Depression and the risk for cardiovascular diseases: systematic review and meta analysis. Int J Geriatr Psychiatry 22: 613-626.
2. Schleifer SJ, Macari-Hinson MM, Coyle DA, Slater WR, Kahn M, et al. (1989) The nature and course of depression following myocardial infarction. Arch Intern Med 149: 1785-1789.
3. Frasure-Smith N, Lespérance F, Talajic M (1995) Depression and 18-month prognosis after myocardial infarction. Circulation 91: 999-1005.
4. Larsen KK, Agerbo E, Christensen B, Søndergaard J, Vestergaard M (2010) Myocardial infarction and risk of suicide: a population-based case-control study. Circulation 122: 2388-2393.
5. de Jonge P, Spijkerman TA, van den Brink RH, Ormel J (2006) Depression after myocardial infarction is a risk factor for declining health related quality of life and increased disability and cardiac complaints at 12 months. Heart 92: 32-39.
6. Kronish IM, Rieckmann N, Halm EA, Shimbo D, Vorchheimer D, et al. (2006) Persistent depression affects adherence to secondary prevention behaviors after acute coronary syndromes. J Gen Intern Med 21: 1178-1183.
7. Frasure-Smith N, Lespérance F, Gravel G, Masson A, Juneau M, et al. (2000) Depression and health-care costs during the first year following myocardial infarction. J Psychosom Res 48: 471-478.
8. Bhattacharyya MR, Perkins-Porras L, Whitehead DL, Steptoe A (2007) Psychological and clinical predictors of return to work after acute coronary syndrome. Eur Heart J 28: 160-165.
9. O'Neil A, Sanderson K, Oldenburg B (2010) Depression as a predictor of work resumption following myocardial infarction (MI): a review of recent research evidence. Health Qual Life Outcomes 8: 95.

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10. Lespérance F, Frasure-Smith N, Koszycki D, Laliberté MA, van Zyl LT, et al. (2007) Effects of citalopram and interpersonal psychotherapy on depression in patients with coronary artery disease: the Canadian Cardiac Randomized Evaluation of Antidepressant and Psychotherapy Efficacy (CREATE) trial. JAMA 297: 367-379.

11. Berkman LF, Blumenthal J, Burg M, Carney RM, Catellier D, et al. (2003) Effects of treating depression and low perceived social support on clinical events after myocardial infarction: the Enhancing Recovery in Coronary Heart Disease Patients (ENRICHD) Randomized Trial. JAMA 289: 3106-3116.

12. Rollman BL, Belnap BH, LeMenager MS, Mazumdar S, Houck PR, et al. (2009) Telephone-delivered collaborative care for treating post-CABG depression: a randomized controlled trial. JAMA 302: 2095-2103.

13. O'Neil A, Sanderson K, Oldenburg B, Taylor CB (2011) Impact of depression treatment on mental and physical health-related quality of life of cardiac patients: a meta-analysis. J Cardiopulm Rehabil Prev 31: 146-156.

14. Smith KM, Arthur HM, McKelvie RS, Kodis J (2004) Differences in sustainability of exercise and health-related quality of life outcomes following home or hospital-based cardiac rehabilitation. Eur J Cardiovasc Prev Rehabil 11: 313-319.

15. O'Neil A, Hawkes A, Chan B, Sanderson K, Forbes A, et al. (2011) A randomised, feasibility trial of a tele-health intervention for Acute Coronary Syndrome patients with depression ('MoodCare'): Study protocol. BMC Cardiovascular Disorders 11: 8.

16. Rost K, Smith JL, Dickinson M (2004) The effect of improving primary care depression management on employee absenteeism and productivity. A randomized trial. Med Care 42: 1202-1210.

17. Simon GE, Katon W, Rutter C, VonKorff M, Lin E, et al. (1998) Impact of improved depression treatment in primary care on daily functioning and disability. Psychol Med 28: 693-701.

18. Dickens CM, McGowan L, Percival C, Tomenson B, Cotter L, et al. (2006) Contribution of depression and anxiety to impaired health-related quality of life following first myocardial infarction. Br J Psychiatry 189: 367-372.