The Contribution of Psychosocial Factors to Secondary Risk Prevention for Myocardial Infarction in Young Adults

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Developing research from practice wisdom...

All practice research starts with practitioners’ ideas

- grounded in insight, skill and practice wisdom and contextualized within the broader healthcare system

- The process is one of integration of research theory with expertise as the idea is conceptualized into a research design, and the process of implementation, analysis and dissemination occurs
Definition of Practice Research
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Practice research is viewed more as a meeting point between practice and research that needs to be negotiated every time and everywhere it is established rather than a specific research method.

Goals include:

- a process of curiosity, critical reflection and critical thinking a close, binding, committed and locally based collaboration between researchers and practitioner in the planning, generating and disseminating of research;
- critical research that describes, analyses and develops practice;
- a participatory and dialogue based research process relevant for developing practice and validating different expertise within the partnership.
Moving from practice to research...

the Question

Is the issue

– of extreme interest to the practitioner
– and why?
– relevant to the service?
– topical?
– linked to policy?
– ethical issues?
Background

- Coronary artery disease is the largest single cause of death in Australia. The modifiable risk factors for cardiovascular disease are well known and include smoking, raised blood cholesterol levels, high blood pressure, physical inactivity and obesity. Despite this, roughly only half of patients follow medical directives in modifying lifestyle behaviors that impact on secondary risk prevention. Direct practice with young patients recovering from myocardial infarction suggests that complex psychosocial issues can impact on their motivation and involvement in the rehabilitation process and need to be included as part of a systemic approach to disease management.

- The mechanisms whereby psychosocial factors affect outcomes of secondary risk prevention are not clear. Clinical practice suggests that a sense of loss associated with isolation may lead to despair, depression, no adherence with advice and abandonment of a healthy lifestyle. These patterns of psychosocial deprivation and depression are now recognized as powerful risk factors. Patients with lower levels of education, occupation, socioeconomic status and income, together with limited control over their lives and working conditions, and who live in poorer areas have a greater risk of poor outcomes.
AIM OF THE STUDY:

To explore and identify the contribution of complex psychosocial factors on secondary risk prevention for myocardial infarction in young adults. The information obtained will contribute to effective practice in secondary risk prevention and rehabilitation programs.

Hypotheses:

1. Complex psychosocial issues can impact on the motivation and involvement of younger patients in rehabilitation programs after myocardial infarction.

2. Psychosocial responses to myocardial infarction including depression, social isolation and occupational changes can result in a lack of adherence to modifying life style changes that impact on secondary prevention after myocardial infarction.
RESEARCH PLAN:

- The research design involved a test, double re-test model using an integrated qualitative and quantitative methodology. A combination of open-ended and standardized questionnaires was used.
The Research Process

The research process had two phases:

**Phase 1:**
A consecutive sample of younger adults (under the age of 55 years) who have experienced a first myocardial infarction were recruited. The sample size is regarded as an optimal size for small sample studies and for the purpose of non-parametric analysis. (Pett 1998) The recruitment was carried out by a social worker not working on the cardiac ward and written consent obtained. Those consenting to participate were interviewed prior to discharge using 3 standardized instruments, Sf-12, Person in Environment social questionnaire (PIE) and the Cardiac Depression Scale (CDS)

**Phase 2:**
The patients recruited into the study were contacted by telephone three and six months after being discharged from St Vincent’s Hospital. The CDS and the SF12 were completed over the telephone, as well as a checklist tracking their participation in rehabilitation and their adherence to lifestyle habits promoting risk factor modification.
Assessment instruments

The SF12 evaluates patients’ perception of their physical and emotional well-being. (Ware JE, Kosinski M, and Keller SD. A 12-Item Short-Form Health Survey: Construction of scales and preliminary tests of reliability and validity. Medical Care, 1996;34(3):220-233.)

The Computerized Person-in-Environment assessment schedule (PIE) has good reliability and validity and assesses social functioning using a systemic model. (The PIE Classification System for Social Functioning Problems and the PIE Manual, James M. Karls and Karin E. Wandrei, Editors)

The Cardiac Depression Scale (CDS) is a self-rating scale developed from the responses of cardiac patients to measure “adjustment disorder with depressed mood” (Birks Y.[1]; Roebuck A.[1]; Thompson D.R.[2], A validation study of the Cardiac Depression Scale (CDS) in a UK population British Journal of Health Psychology 1 February 2004, vol. 9, no. 1, pp. 15-24(10))
DISCUSSION OF THE RESULTS:

• An interim report ( N=14 ) is presented. The data reflects assessments carried out during hospitalisation, and by telephone at 3 months and 6 months.

DATA ANALYSIS:

• The analysis of the data has three components:
• Descriptive Analysis to establish the frequency of age and gender
• Correlational analysis of significant relationships between variables: Pearson Correlation coefficients were calculated on the CDS, SF-12 and categorical data to establish any positive relationships between variables
• Thematic analysis of the qualitative data from the semi-structured interview schedules: the qualitative data was analysed to extract commonly recurring themes
Gender of sample

- Male: 85%
- Female: 15%
DEPRESSION SCORES AT INITIAL ASSESSMENT, 3 MONTHS AND 6 MONTHS

At the initial assessment 41% of the sample scored at a clinically significant level for depression. These high scores related to equally high scores on the sub-scales for sleep, cognitive,

At the second assessment at 3 months no scores reached a clinically significant level of depression and this was also the case at 6 months
At the initial assessment the scores reflected a moderate to high level of depressed affect which impacted on social activities and interaction, as well as having an impact on accomplishing significant tasks. This was dramatically reduced at the second and third assessments in most patients.
SF12: The impact of physical and emotional health on capacity to accomplish activities

Assessment intervals

Physical

Emotional
SF12: Depressed affect (s1) and impact of health on social activities (s2) at 3 months
SF12: Depressed affect (s1) and impact of health on social activities (s2) at 6 months
The following correlations were significant of strong positive relationships and were significant at the .01 level:

- mood and sleep, $r = .692$
- mood and inactivity, $r = .794$
- mood and depression scores, $r = .892$
- sleep and inactivity, $r = .726$
- sleep and depression, $r = .802$
- inactivity and cognition, $r = .680$
- inactivity and depression, $r = .911$
- cognition and depression, $r = .729$

The following correlation was significant at the .05 level

- mood and cognition, $r = .610$
Thematic analysis of qualitative data

- Acute personal crisis
- Fear of death
- Increased physical and emotional vulnerability
- Emotional dependence on partner/spouse and close family
- Fear of permanent loss of competence at work and in personal relationships
- Fear of family history
- Fear of insufficient knowledge about heart disease and doing the “wrong thing” to prevent another crisis
- Fear of inadequate continuing medical care on discharge from St Vincent’s Health
- Difficulty in modifying life habits
- Fear of future health crises without appropriate support
DISCUSSION

The patients in the sample were confronted with a severe life threatening crisis which impacted on their emotional life as was shown by the significant depression scores in 41% of the sample at the initial assessment. All patients expressed an intense fear of increased mortality. These scores did not reach significance at 3 and 6 months in instances where patients reported emotional management of the crisis, as well as an ability to implement key life style changes.
Social Network support

- Patients named informal supports (spouse, partner and family) as providing the most significant help, and for the most part did not access any community supports. Only 2 patients felt that they would have liked to participate in a support group. Patients who returned to their previous life style (friendship, employment and leisure) appeared to adapt positively and manage emotional difficulties related to physical vulnerability.
All patients were at different stages of emotional recovery which was highly individualistic and not related to physical recovery post myocardial infarction. As patients gained mastery over the crisis and had the knowledge and capacity to implement life-style changes which they knew would be good prevention strategies, so their feelings of helplessness and depression lessened and they returned to previous levels of social functioning.
For some patients, education was sufficient to empower them to make the necessary lifestyle changes to reduce secondary risk. For others the telephone tracking support service offered by the St Vincent’s Health Coach Program was important, while a few expressed the need for intensive group or individual interventions.
Emotional recovery

- Assessment of the stages of emotional recovery after myocardial infarction is crucial in the implementation of a program to manage effective lifestyle changes for secondary risk prevention.

The unique nature of the emotional response reflects the need for careful individual assessment.

Psychosocial issues such as employment, social activities, and informal friendship, partner and family (in particular) networks strengthen personal mastery and self-empowerment which is reflected in the capacity to make life-style changes, reduce risk behavior, reduce feelings of powerlessness and depression.
Myocardial infarction is a life threatening event that can result in feelings of increased mortality, depressed affect and loss of interest in life and social activities.

Rehabilitation programs need to acknowledge patients’ fears using two key theoretical models to respond to emotional issues, as well as program activities focused on physical recovery and prevention.
In Conclusion:

Key theoretical models are:
Crisis intervention responding to the developmental life crisis needs (including fears of mortality) of patients and their carers.

Empowerment strategies to facilitate lifestyle and secondary risk management that respond to the individual stage of recovery of each patient. This assessment should not be related to physical recovery alone, but should acknowledge and integrate emotional recovery.

The patient’s level of emotional recovery will predict the interventions and supports necessary to manage essential lifestyle changes for effective secondary risk prevention.