Cardiopulmonary resuscitation training improved perceived control in spouses of patients recovering from an acute cardiac event


QUESTION: Can training in cardiopulmonary resuscitation (CPR) increase perceived control in spouses of patients recovering from an acute cardiac event?

Design
Randomised (unclear allocation concealment), unblinded, controlled trial with follow up 1 month after intervention.

Setting
A university medical centre and 4 community hospitals in Southern California, USA.

Participants
219 spouses or significant others who were ≥18 years of age, able to read and write English, and living with a partner who had had an acute myocardial infarction, coronary artery bypass surgery, or percutaneous transluminal coronary angioplasty in the previous 12 months. Exclusion criteria were serious medical conditions in either the patient (other than cardiac disease) or spouse, mental incompetence, or history of mental illness. 89% of spouses (mean age 59 y, 83% women, 91% white) completed the follow up.

Intervention
Spouses were allocated to CPR plus social support (n = 68), CPR plus risk factor education (n = 67), or no treatment (n = 84). One person CPR was taught by cardiovascular clinical nurse specialists in small classes of 2–6 spouses. Training was accompanied by a videotaped presentation. Spouses in the CPR plus social support group also participated in a 30 minute discussion led by the instructor about the emotional issues raised by learning CPR, whereas those in the CPR plus risk factor education group participated in a discussion about how to modify cardiac risk factors. Spouses in the no treatment control group did not receive CPR training nor attend any discussion groups.

Main outcome measure
Spouses’ perceived control, assessed using the Family Control Attitudes Scale (sum of 4 items; scores range from 4–28, with higher scores indicating greater feelings of control).

Main results
At 1 month after training, spouses’ perceived control increased in both the CPR plus social support group and the CPR plus risk factor education group, but remained unchanged in the no treatment control group (p = 0.006). The 2 CPR groups did not differ.

Conclusions
Training in cardiopulmonary resuscitation with a social support intervention or with risk factor education improved perceived control in spouses of patients who were recovering from an acute cardiac event when compared with no treatment. No difference was found between CPR plus social support and CPR plus risk factor education.

COMMENTARY
More than half of the spouses of cardiac patients experience emotional distress, and they have higher levels of distress than the patients themselves. Despite evidence suggesting that spouses can help with their partner’s recovery, there are few tested interventions to reduce spousal stress and improve their ability to assist in the recovery process.

Moser and Dracup hypothesised that CPR training for spouses would increase perceived control, decrease emotional distress, and therefore, improve the ability to assist in their partner's recovery. Although the authors found that higher levels of control were associated with low levels of distress at baseline, they did not assess whether the increase in perceived control resulting from the CPR training had an effect on distress.

The use of a randomised controlled design is a major strength of this study. As most of the spouses were white, had incomes higher than the average, and had completed a mean of 14 years of education, the results may not be generalisable to spouses of different races or of lower socioeconomic status. Lower socioeconomic status is associated both with distress and negative health behaviours. Unlike other studies of spousal distress in heart disease, Moser and Dracup included both husbands and wives of patients. Although sex did not affect the outcome, it is unclear whether the study had adequate power to detect such an effect (only 17% of the spouses were men). The effects of CPR training on perceived control may differ between men and women.

Unanswered questions arising from this study include: (1) is an increase in perceived control associated with a decrease in emotional distress? (2) Does the time between the cardiac event and training influence perceived control and emotional distress? (3) Is there an interaction between the baseline level of perceived control and the effects of the intervention? And (4) does an increase in perceived control improve a spouse’s ability to assist in their partner’s recovery? Future research should also address the cost effectiveness of intervening with spouses.

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