Emotional support and mastery were associated with decreased mortality in older people

Penninx BW, van Tilburg T, Kriegsman DM, et al. *Effects of social support and personal coping resources on mortality in older age: the Longitudinal Aging Study Amsterdam*. *Am J Epidemiol* 1997 Sep 15;146:510-9.

Question

Are social support (structural, functional, and perceived aspects) and personal coping resources (mastery, self efficacy, and self esteem) associated with mortality in older people?

Design

Cohort study with mean follow up of 29 months.

Setting

11 municipalities in the Netherlands.

Participants

2829 adults (51% women) who were 55-85 years old at baseline (1992-3). Exclusion criteria were serious illness, cognitive impairment, living in an institution at baseline, or missing follow up data.

Assessment of risk factors

Participants were interviewed at baseline and completed questionnaires. Social support was divided into 3 categories: structural network characteristics (partner status and number of social relationships); functional receipt of support (mean amount of instrumental and emotional support received from personal network members); and perceived support (loneliness). Personal coping resources had 3 categories: mastery (Pearlin Mastery Scale); self efficacy (perceived ability to function in novel, unpredictable, or stressful situations); and self esteem. Other risk factors were age, sex, education level, disease status (cardiac or lung disease, atherosclerosis, stroke, diabetes mellitus, cancer, arthritis, and other major chronic diseases), smoking, use of alcohol, physical limitation, and self rated health.

Main outcome measure

Mortality ascertained using municipality registers.

Main results

202 adults (7%) died during follow up. Multivariate analyses found 5 variables that were associated with decreased mortality and 7 with increased mortality (table). Adjustment for physical limitations, self rated health, alcohol use, and smoking did not change the results substantially.

Conclusions

In elderly people, reduced mortality was associated with emotional support and mastery. Increased mortality was associated with loneliness and high instrumental support.

Multivariate predictors of mortality in older people

Study variable	Odds ratio	(95% CI)
Decreased risk of mortality		
Emotional support—moderate	0.47	0.32 to 0.70
Emotional support—high	0.67	0.47 to 0.98
Stroke	0.51	0.26 to 0.98
Sex (women)	0.64	0.45 to 0.90
Mastery	0.93	0.89 to 0.98
Increased risk of mortality		
Loneliness	1.06	1.00 to 1.12
Age (55-85 y)	1.07	1.06 to 1.08
Cardiac disease	1.46	1.06 to 2.00
Lung disease	1.56	1.09 to 2.24
Cancer	1.71	1.13 to 2.58
High instrumental support	1.87	1.21 to 2.88
Diabetes mellitus	2.39	1.63 to 3.52

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Commentary

The multiple mechanisms by which social support influences health status, health behaviour, and health services use continue to challenge researchers. This longitudinal study by Penninx *et al* contributes to the evidence of links between social support and mortality over time. Moreover, it bridges a gap by examining the effect of coping resources other than social support. The findings pertaining to age and sex reinforce earlier research.

The authors acknowledge that despite oversampling the "old-old", non-response was higher for the older and less healthy subjects. Key sources of social support were elicited by the structural dimension of the support measure. Information and affirmation functions of support could have been assessed in addition to instrumental and emotional functions. Given

that the emotional distress of loneliness is typically attributed to perceived deficiencies in social relationships and networks,¹ loneliness is an outcome of perceived support rather than a measure of perceived support itself. Indeed, social support can alleviate loneliness. Recent research indicating that the negative features of social relationships have a far greater effect on health outcomes than positive features is noteworthy.

The results of this research are relevant to nurses who work with seniors and their families in hospital, long term care, and community based settings. The research points to the importance of support, in particular emotional support which may diminish emotional loneliness. Nurses can provide emotional support and can mobilise this type of support from fami-

lies and neighbours of older people. The interpretation that older people who receive more practical support may be more susceptible to physical morbidity, and hence mortality, is astute. Because reinforcement (ie, affirmational support) influences mastery, nurses can use supportive strategies that provide positive feedback and promote perception of mastery and can encourage the families of older people to use similar strategies.

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1 Rook K. Parallels in the study of social support and social strain. *J Social Clin Psychol* 1990;9:118-32.