NURSING IMPLICATIONS OF LATEST FEMALE MORTALITY INDICATORS

New research examining the impact of a combination of lifestyle factors on mortality highlights the importance of health promotion messages. Nerys Hairon finds out more

Over half of deaths in women from conditions such as cancer and heart disease could be avoided by making specific lifestyle choices, new research has found. The study, published online by the British Medical Journal, was part of the ongoing Nurses’ Health Study. It estimated that 55% of deaths could have been avoided if women had combined never smoking, regular physical activity, a healthy diet and maintaining a healthy weight. Alcohol intake did not substantially change this estimate, although heavy drinking is linked to an increased risk of dying from cancer.

Van Dam et al (2008) conclude that adhering to lifestyle guidance is linked to ‘markedly lower mortality’ in middle-aged women. They emphasise that both efforts to stop patients smoking and improve physical activity levels and diet should be intensified.

It is well known that diet, lack of exercise, being overweight, heavy alcohol consumption and smoking increase the risk of diseases, including type 2 diabetes, cardiovascular disease and cancer, but little research has examined combinations of lifestyle factors in younger populations and women. Many studies have shown that individual lifestyle factors are associated with risk of long-term conditions, and this study adds to the evidence base by evaluating the effects of combinations of factors on mortality.

**METHOD**

Van Dam et al (2008) examined combinations of lifestyle factors in relation to cancer, cardiovascular and all-cause mortality during 24 years of follow-up among middle-aged women participating in the nurses’ health study. They estimated the proportion of deaths during follow-up that could potentially have been avoided by adhering to lifestyle guidance.

The nurses’ health study is a prospective cohort study established in 1976, based on 121,700 female US nurses aged 30–55 years. Van Dam et al began follow-up for their study in 1980, as this was the first year when diet was assessed. After exclusions for various reasons, their analysis was based on a total of 77,782 women aged 34–59 years at the start.

Participants completed detailed follow-up questionnaires every two years about their diet, frequency of physical activity, alcohol intake, weight, how much they smoked and disease history. The researchers analysed diet by looking at consumption of vegetables, fruit, nuts and soya, ratio of fish and poultry to red meat, cereal fibre, trans fat and polyunsaturated to saturated fatty acid ratio. Deaths were confirmed by the participants’ next of kin and the National Death Index.

**KEY FINDINGS**

During 1,759,408 person years of follow-up, van Dam et al documented 8,882 deaths, including 1,790 from cardiovascular disease and 4,527 from cancer. Each lifestyle factor independently and significantly predicted mortality.

Smoking, higher BMI, less physical activity and a lower healthy diet score were all associated with increased cardiovascular, cancer and all-cause mortality. Light to moderate alcohol consumption was found to be linked to lower risk of cardiovascular death than alcohol abstinence but heavy drinking was linked to an increased risk of cancer death.

The researchers estimated that 28% of deaths during follow-up could be attributed...
cancers, liver cirrhosis, hypertension, psychiatric disorders, injuries and violence. While they found that light to moderate alcohol consumption was linked to lower cardiovascular mortality, they point out that even moderate drinking has been linked to a higher risk of breast cancer and traffic accidents. In addition, they warn that people with moderate consumption may be more likely to move on to heavy drinking. Given the complexity of the effects of alcohol on personal health, the authors suggest that women could discuss these risks and benefits with healthcare professionals.

While the researchers acknowledge that there are some limitations in the study, they suggest the results indicate that ‘even modest differences’ in lifestyle can have a substantial impact on reducing mortality. They accept that population-attributable risks for individual risk factors will differ by population but argue that their overall conclusions are generally applicable to middle-aged women in high-income countries.

Van Dam et al say the findings emphasise the importance of intensifying both efforts to eradicate smoking and those aimed at improving diet and physical activity. See box below for main study conclusions. This study adds to existing evidence. A study by Cancer Research UK predicted that lifestyle changes could prevent one in 10 cases of breast cancer by 2024 (CRUK, 2007; Hairon, 2007). Their study presented the effect that modification of the following five lifestyle factors might have on future breast cancer incidence in women:

- Use of post-menopausal hormones;
- Weight loss;
- Reduced alcohol consumption;
- Moderate physical exercise;
- Breastfeeding.

For example, the research found that reducing obesity levels to 8% of women over the next 10 years could prevent around 1,800 cases each year.

IMPROVING LIFESTYLE CHOICES

Studies that quantify the effects of making certain lifestyle changes can help nurses to underline to patients the importance of following guidance regarding smoking, exercise, diet, weight management and alcohol consumption.

NICE (2007) launched public health guidance to help healthcare professionals bring about changes in people’s lifestyles. The recommendations comprise a set of generic principles that can be used as the basis for planning, delivering and evaluating public health activities aimed at changing health-related behaviours. One of the principles includes a recommendation that nurses and healthcare professionals select interventions that motivate and support people to:

- Understand the short, medium and longer-term consequences of their health-related behaviours, for themselves and others;
- Feel positive about the benefits of health-enhancing behaviours;
- Plan their changes in easy steps over time;
- Plan explicit ‘if-then’ coping strategies to prevent relapse.

The Department of Health is clearly committed to tackling obesity and its associated risks. It recently announced the launch of Change4Life, a national movement supported by the DH to improve children’s diets and activity levels, reducing the threat to future health and happiness (Balls and Johnson, 2008). For more information, see www.dh.gov.uk.

CONCLUSION

The research by van Dam et al (2008) underlines the importance of health promotion among women, to reduce their risk of death from a range of diseases. Nurses have a vital role in emphasising and explaining the importance of healthy lifestyle choices to all patients.

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<th>KEY STUDY CONCLUSIONS</th>
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<td>Avoiding cigarette smoking is pivotal for preventing premature death.</td>
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<td>Adhering to lifestyle guidance involving a healthy diet, regular physical activity and weight management is also linked to markedly lower mortality.</td>
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<td>The results indicate that a healthy diet and regular physical activity have important health benefits independent of reducing adiposity.</td>
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