Telephone Counselling Has Beneficial Effect on Treatment, Mortality Rates

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The association between low rates of adherence to medical treatments and poor health outcomes has been well documented, occurring even when the treatment under study was a placebo.[1] Studies of adherence interventions should be of significant interest to those working with older adults, who are most likely to be on polypharmacy, yet such investigations are few when compared with the large number of trials for individual drugs and treatments.[2] A recent issue of the British Medical Journal presents details of a study that investigated the effects of periodic telephone counselling by a pharmacist on medication compliance and mortality among community-dwelling patients on polypharmacy (>5 drugs).[3]

Study Design

In a randomized controlled trial of two years' duration, 502 of 1,011 patients (mean age 71) receiving five or more medications and found to be noncompliant with their medication regimens were deemed eligible. Sixty of the 502 eligible patients defaulted and only 442 patients were randomized. Individuals were assigned to either a telephone counselling (n=219) or a control group (n=223). Researchers defined compliance as consuming 80–120% of the prescribed drug's recommended dosage; to be termed compliant, patients had to comply with the prescription for every drug in their regimen. The study's main outcome measure was all-cause mortality.

Compliance and the Provision of Phone Counselling

During the screening interview the pharmacist used a structured questionnaire (available online at BMJ.com) to obtain information on and counsel patients about the dosages and frequency of their therapeutic regimens. Compliance scores were calculated as described. Compliance was assessed at screening, again at randomization, and finally at two-year follow-up. At randomization, patients assigned to the intervention group received a 10–15 minute phone call during which a pharmacist reviewed and took questions about the patient's treatment regimen, discussed side effects, reinforced the importance of compliance, and addressed relevant self-care. Patients in the control group received no counselling.

Participants in the intervention group received 6–8 telephone calls between clinic visits. After two years, 31 (52%) of the defaulters, 38 (17%) of the control group, and 25 (11%) of the intervention group had died. Most deaths were due to cardiovascular events. After adjusting for confounders, researchers calculated that the telephone intervention had resulted in a 41% reduction in the risk of death (relative risk 0.59, 95% confidence interval 0.35 to 0.97; P = 0.039; number needed to treat=16). The risk of death was significantly higher among those with drug compliance rates of 0–33% and 34–66% compared with those individuals with compliance scores of 67% or more (Figure 1).

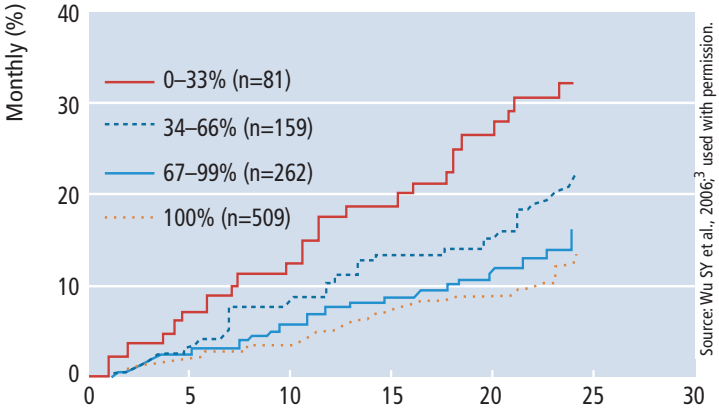

Figure 1: Risk of death in the cohort of 1,011 patients according to compliance scores at screening visit.

Telephone counselling affected both mortality rates and use of healthcare resources. This effect was greater at follow-up among the control group (median number of days in hospital 0.0 for intervention subjects vs. 3.0 for control).

In addition to improving compliance, the study's authors suggest that the telephone counselling drew attention to the participants' general health, leading toward greater awareness and more proactive self-care. Notably, more patients in the intervention group received antiplatelet and lipid-lowering drugs at baseline and at follow-up.

Conclusion

The authors conclude that despite their favourable results, further inquiry into other psychological and behavioural determinants that may influence compliance and clinical outcomes is needed. They describe the provision of continuous support, such as the periodic telephone counselling tracked in this study, as a beneficial intervention capable of reinforcing positive health behaviours.

References

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