

A nurse-led email reminder programme on healthy lifestyle can improve cardiovascular risk factors in hypertensive adults

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Implications for practice and research

- Individuals receiving a nurse-led reminder programme through email observed improvements in risk factors for cardiovascular disease, relative to a usual care control group.
- Issues to consider what would further enhance the likelihood of successful implementation of the intervention are discussed.

Context

Unhealthy behaviours such as smoking and poor diet account for as many as 40% of premature deaths.¹ The study by Cicolini and colleagues is an example of a potentially useful cardiovascular disease risk-reduction programme based on potentially significant findings.

Methods

Hypertensive individuals were enrolled from an Italian hypertension primary care centre. All individuals were required to attend follow-up visits 1, 3 and 6 months after enrolment and attend a guideline-based education programme. The education programme consisted of an hour-long session during which the nurse case manager focused on blood pressure control and measurement and additional non-pharmacological strategies to improve lifestyle. Daily, all participants had to complete an adherence self-assessment form. The intervention included usual care, as well as email alerts and phone calls from nurse case managers. An email was sent weekly for 6 months reminding individuals to adhere to a healthy lifestyle. The emails addressed current guidelines and reinforced compliance with a healthy lifestyle reviewed in the education programme. Of the 357 eligible individuals, 101 were randomised to usual care and 102 to the intervention.

Findings

The average age of the sample was 58, while 52% were males. In absolute terms, at the end of the 6-month follow-up, the prevalence of obesity, low fruit consumption, low physical activity, uncontrolled hypertension, high-low-density lipoprotein and total cholesterol decreased significantly more in the intervention group than it did in the usual care group.

Commentary

An important barrier to the delivery of health behaviour change interventions is the lack of an integrated screening and intervention approach that can cut across multiple risk factors and help clinicians and patients to address these risks in an efficient and productive manner. Large gaps remain in our knowledge about the efficacy of interventions to address multiple behavioural risk factors in primary care.² The study by Cicolini and colleagues demonstrates the benefits of addressing multiple factors.

In evaluating interventions, consideration is needed regarding the following three issues—or programmes will fail to be implemented: first, what is the cost of the programme to the individual and the stakeholders? Related to this, how much effort and training is needed to ensure that the programme could be implemented and potentially sustained after demonstrating success? Behavioural interventions need to capture all personnel and overhead costs and must represent the variability of the intervention costs from patient to patient.³ Thus, similar to many prior studies, there is relatively little methodological detail provided, which limits the potential of implementing this programme.

Second, understanding the relative addition of the email alerts relative to the actual phone calls made by the nurses is important to consider, particularly if a stakeholder considers scaling this programme. Costs and scalability will vary dramatically depending on the effectiveness and time of the nurse relative to the use of email alerts.

Third, to further consider whether to implement or sustain the current programme, information on fidelity is needed. Lack of attention to treatment fidelity or the reporting of it makes interpreting conclusions challenging.⁴ The lack of reporting information on fidelity also impacts the time it takes to potentially implement programmes and is often one of the major reasons why positive findings of small pilot studies are not necessarily reproduced in larger rollouts.

Moving forward, consideration of identifying potential stakeholders early on, capturing cost in terms of resources and patient and provider time and establishing intervention fidelity are necessary to ensure that we implement and scale successful programmes into practice.

Competing interests None.



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References

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