

An evidence synthesis of qualitative and quantitative research on component intervention techniques, effectiveness, cost-effectiveness, equity and acceptability of different versions of health-related lifestyle advisor role in improving health

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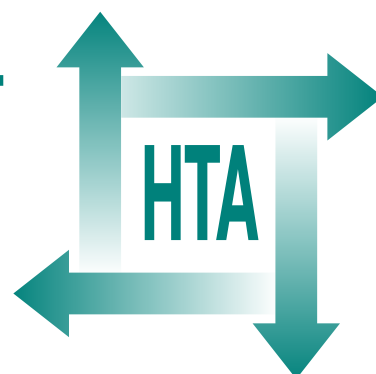


Executive summary

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Executive summary

Review question and objectives

This research aims to identify, describe, classify and analyse the range of models developed to date for delivering health-related lifestyle advice (HRLA), or training, for effectiveness, mechanism of effect, cost-effectiveness, equity and acceptability in improving the health and well-being of individuals and communities, with particular reference to the reduction of inequalities in the UK.

Typical of the complexity of public health issues, the question addressed in this review is broad and multifaceted. The overall question was therefore broken down and grouped under two broad groupings:

1. What are the component intervention techniques of lifestyle advisors (LAs) in the UK and similar contexts?
2. What are the outcomes of HRLA interventions?

Methods

Data sources

In preparation to undertake the evidence synthesis, a process of problem definition and intervention modelling to facilitate development of classification of the various intervention dimensions was undertaken: eliciting stakeholder views, secondary analysis of the National Survey of Health Trainer Activity, telephone survey of health trainer leads/co-ordinators. An extensive search of electronic databases [including the Applied Social Sciences Index and Abstracts (ASSIA), EMBASE, NHS Economic Evaluation Database (NHS EED), MEDLINE, PsycINFO, etc.], relevant journals and reference lists was undertaken. Searches were conducted from inception to September 2008.

Study selection

Studies with the following criteria were included:

- those carrying out an evaluation (quantitative, qualitative or economic) of HRLA
- those taking place in developed countries similar to the UK context, i.e. Western Europe, North America, Australia and New Zealand
- those looking at adult groups
- interventions with the explicit aim of health improvement, including community-based secondary prevention for chronic disease
- interventions that involved paid or voluntary work with an individual or group of peers acting in an advisory role, offering support in person, over the telephone or online
- advice delivered by post, online or electronically (only if this involved an iterative process of interaction between individual and advisor)
- training, support or counselling delivered to patients, communities or members of the public.

After quality assessment, using standardised quality checklists, 26 studies were identified for inclusion in the review.

Data abstraction

Data were abstracted from each study according to an agreed procedure.

Data analysis and synthesis

Multiple approaches were required to synthesis the data in this review: narrative, realist and economic. The narrative synthesis provided a detailed description of the included studies (qualitative and quantitative) and treated them as exemplar cases of LA interventions. The realist synthesis builds on this emerging theory to refine and elaborate the knowledge of how, why, and in which circumstances, LA interventions are likely to produce successful outcomes. The analysis of cost-effectiveness provided as comprehensive an answer as possible to the second group of review questions.

Results

In total, 269 studies that evaluated HRLA were identified but 243 were excluded owing to a range of methodological factors that made them unsuitable for inclusion in a systematic review. The 26 included studies addressing chronic care, mental health, breastfeeding, smoking, diet and physical activity, screening and human immunodeficiency virus (HIV) infection prevention.

Overall, the evidence was not sufficient to support or refute the use of LAs to promote health and improve quality of life (QoL). Although there is likely to be considerable uncertainty about statements of interventions' cost-effectiveness because of the sparse evidence base for effectiveness, lessons can be drawn from the realist analysis of the included studies.

- LA interventions in chronic care are cost-effective. The success of interventions to improve the management of chronic conditions is linked to their largely already engaged target group and to their aim, which differs from that of some of the other HRLA, in that they help people live with a condition rather than necessarily aiming at behaviour change.
- LA interventions for smoking cessation are cost-effective because of the important health gains that derive from cessation. The economic analysis excluded studies when effectiveness did not reach statistical significance. However, the buddy schemes explored in these studies have much to offer to an analysis of intervention components and may still offer potential as a practice model.
- From the evidence that could be accessed, the cost-effectiveness of LA interventions for breastfeeding is inconclusive. Intervention mechanisms details suggest that these interventions tended to use peers with common experience, and aimed at enhancing, rather than changing, behaviour.
- Included studies did not allow the production of a conclusive cost-effectiveness estimate for LA interventions for mental health. This intervention presented a mechanism in common with the smoking cessation 'buddy' system, in that it paired people with a similar experience (that of being the parent of a child with a chronic condition). LA interventions for screening uptake are not cost-effective. These interventions did reach, however, a large number of people, they presented, on the whole, high degrees of acceptability, and targeted population groups, which tended to be disengaged from mainstream service provision.
- LA interventions for diet and physical activity are not cost-effective. Highlighted by the realist analysis was an alternative intervention mechanism, in that one study targeted whole family groupings rather than individuals. This was a unique intervention characteristic within this review.
- LA interventions for HIV infection prevention were cost-effective, but not in a UK context. Realist analysis highlights that they did succeed, however, in reaching hard-to-reach communities and build on social capital – two aims of the health trainer scheme in the UK.

Conclusions

The wide variety of LA models, delivery settings and target populations prevented the reviewers from establishing firm causal relationships between intervention mode and study outcomes. Evidence is variable and can only give limited support to LAs having a positive impact on health knowledge, behaviours and outcomes. Levels of acceptability appear to be high. LAs acted as translational agents, sometimes removing barriers to prescribed behaviour or helping to create facilitative social environments. Reporting of processes of accessing or capitalising on indigenous knowledge (IK) is limited. Ambiguity continues with respect to the role and impact of lay and peer characteristics of the interventions.

Recommendations for practice

- Interventions that are low cost and have some effect are recommended.
- Further recognition of the IK base of the LA may be required.
- Training of LAs may be worthy of particular attention, as a balance needs to be reached between provider and LA-identified learning needs.
- The process of message tailoring and the effectiveness of inclusion of different aspects of community allegiance and IK require further exploration.
- There is a need for clearer definitions of target groups, their characteristics and particular needs.
- Intervention approaches need to be made more explicit.
- Peers and layness need to be considered and defined for particular settings.
- Short-, medium- and long-term intervention outcomes need to be clearly identified and measured.

Recommendations for a future programme of research

The following recommendations carry particular relevance to the UK context, but may also be of international relevance. They are designed to form a programme of research on HRLA, around the identification of needs, the broadening of population focus and intervention aims, the measurement of outcomes and the reviewing of evidence.

- Identifying need:
 - A concept mapping approach may be an appropriate strategy to use in order to identify what people believe helps them adhere to healthy lifestyle advice, and to triangulate this to views of public health professionals and community leaders.
- Target groups:
 - Interventions in groups not addressed in the review (men, transient populations, homeless people, etc.), broader interventions in groups with specific issues (e.g. physical health in mental health population groups), and prevention in general health promotion (such as stop smoking plus diet, exercise and screening) need further development.
 - Research on alternative target groups that may be of broader focus than health related, such as, for example, faith groups, youth groups, community centres, gangs, playschemes, etc.; within each group, existing leaders could be identified and collaborative relationships nurtured to identify, assess and address local needs. Such schemes are likely to lead to community development activities but would require longitudinal funding schemes.
- Intervention aim:

- Research is needed on the building of social capital or community development through LA schemes. This would entail a focus on social and structural, rather than individual, determinants of health inequalities.
- A development of research led by, or conducted in collaboration with, community guides would help to develop ways for health-care providers to maximise the potential of pre-existing 'unofficial' health improvement activities.
- Outcome identification and measurement:
 - This review endorses the need for a strategic movement along the Medical Research Council continuum of evidence so that research evolves from scoping practice to evaluating outcomes.
 - HRLA schemes would benefit from a development of current methodological advancements to help identify and assess short-, medium- and long-term intervention outcomes. In the long term, this would encourage the publication of promising outcomes and thus strengthen the HRLA evidence base.
 - There is a need to establish equity of outcomes between groups of different socioeconomic profiles.
 - There is a need to identify what enables long-term effects, i.e. regular low-cost 'top-up' interventions or multidimensional interventions with changes in approach over time.
- Systematic reviewing in public health:
 - A greater engagement with realistic review or synthesis principles would allow exposure of contexts and mechanism components that influence a range of outcomes in HRLA interventions.
 - This review supports previously published commentaries on the necessity for the development of quality assessment tools that could allow increased methodological flexibility.

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Publication

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NIHR Health Technology Assessment programme

The Health Technology Assessment (HTA) programme, part of the National Institute for Health Research (NIHR), was set up in 1993. It produces high-quality research information on the effectiveness, costs and broader impact of health technologies for those who use, manage and provide care in the NHS. 'Health technologies' are broadly defined as all interventions used to promote health, prevent and treat disease, and improve rehabilitation and long-term care.

The research findings from the HTA programme directly influence decision-making bodies such as the National Institute for Health and Clinical Excellence (NICE) and the National Screening Committee (NSC). HTA findings also help to improve the quality of clinical practice in the NHS indirectly in that they form a key component of the 'National Knowledge Service'.

The HTA programme is needs led in that it fills gaps in the evidence needed by the NHS. There are three routes to the start of projects.

First is the commissioned route. Suggestions for research are actively sought from people working in the NHS, from the public and consumer groups and from professional bodies such as royal colleges and NHS trusts. These suggestions are carefully prioritised by panels of independent experts (including NHS service users). The HTA programme then commissions the research by competitive tender.

Second, the HTA programme provides grants for clinical trials for researchers who identify research questions. These are assessed for importance to patients and the NHS, and scientific rigour.

Third, through its Technology Assessment Report (TAR) call-off contract, the HTA programme commissions bespoke reports, principally for NICE, but also for other policy-makers. TARs bring together evidence on the value of specific technologies.

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Reviews in *Health Technology Assessment* are termed 'systematic' when the account of the search, appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

The research reported in this issue of the journal was commissioned by the HTA programme as project number 07/26/03. The contractual start date was in November 2007. The draft report began editorial review in October 2009 and was accepted for publication in February 2010. As the funder, by devising a commissioning brief, the HTA programme specified the research question and study design. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the referees for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

The views expressed in this publication are those of the authors and not necessarily those of the HTA programme or the Department of Health.

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