

Development and evaluation of very brief interventions to increase physical activity in primary care: The VBI Programme

Protocol for Review of Reviews of Very Brief Interventions (WS1)

Review Title and Timescale:

Title: What do we know about very brief interventions to increase physical activity?
A systematic review of reviews.

Start date: 1/8/2011

Anticipated completion date: 31/7/2012

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Conflicts of interest:

None known

Review question(s):

Objective 1: To summarise what is known about very brief interventions to increase physical activity that could be delivered face-to-face in a primary care or community setting. Information regarding content, duration, context, facilitator, population, cost and efficacy (with physical activity as an outcome) will be examined.

Objective 2: To determine and describe the current working definition of a ‘brief intervention’ in the physical activity intervention review literature.

Objective 3: To assess the reporting of interventions, specifically duration and content.

Due to the nature of this review of reviews and its objectives, eligibility of publications will be assessed at both the level of the review (e.g. the aim of the review) and at the study level (e.g. the nature of the interventions included in the reviews).

Searches:

- CINAHL on NHS Evidence
- Cochrane Database of Systematic Reviews on Cochrane Library.
- Database of Abstracts of Reviews of Effects (DARE) on Cochrane Library and Centre for Reviews and Dissemination (CRD).
- Health Technology Assessment database on Cochrane Library and Centre for Reviews and Dissemination (CRD).
- Embase on OvidSP
- MEDLINE on Web of Knowledge
- PsycINFO on EBSCO
- SCI-Expanded on Web of Knowledge
- SSCI on Web of Knowledge
- SIGN

Hand searching of first authors’ personal collections of articles will be conducted.

Where possible searches will be limited to English language publications. No date restrictions will be imposed.

Background:

Interventions to increase physical activity may be easier to integrate into routine primary care consultations or community based initiatives and thus reach a substantial part of the adult population if they were very brief. The authors define very brief interventions as “those delivered face-to-face, preferably in a single session lasting no more than 5-10 minutes, but possibly also multiple brief sessions and/or distance contacts such as leaflets or telephone calls”. No review to date has described the current evidence base surrounding very brief interventions, though a single review has focused upon brief interventions to increase physical activity in primary care defined as “any brief intervention involving verbal advice, encouragement, negotiation or discussion with the overall aim of increasing physical activity delivered in a primary care setting by a health or exercise professional, with or without written support or follow-up... a single initial consultation...(no specific time limit was set for the length of this consultation)”(NICE 2006).

This review uses narrative synthesis to report the content of, and evidence for, the effectiveness of very brief interventions and highlights the variety of ways in which the term ‘brief intervention’ has been interpreted in the physical activity promotion literature.

Participants/population:

At the review level: Adult participants (defined as 18 years or older) regardless of health status except those undergoing rehabilitation or those receiving secondary or tertiary care. Reviews may include other age groups, but only in addition to adult populations.

At the study level: Adult participants (defined as 18 years or older) regardless of health status except those undergoing rehabilitation or those receiving secondary or tertiary care. Studies including other age groups (children, adolescents) where no distinction is made between them in terms of outcome data and results will not be eligible for data extraction.

Intervention(s), exposure(s):

At the review level: Reviews with the primary aim of assessing interventions to promote uptake or increase of physical activity. Reviews targeting multiple behaviours such as smoking, dietary intake and physical activity all together will be excluded. Reviews must contain at least one study that evaluates a very brief intervention as defined by the review team, namely an individual level (including group based) intervention with a face-to-face component, that is delivered preferably in a single session lasting no longer than 10 minutes. Interventions that involve multiple very brief (10 minutes or less) sessions or additional contacts at a distance for example via mailed leaflets or very brief telephone calls will also be eligible..

At the study level: Studies reporting on individual level interventions (including group based interventions), with a face-to-face component. Interventions that are delivered

preferably in a single session lasting no longer than 10 minutes. Interventions that involve multiple very brief (10 minutes or less) sessions or additional contacts at a distance for example via mailed leaflets or very brief telephone calls will also be included.

Comparator(s)/control:

Any comparison, including another intervention, routine care or no intervention.

Types of study to be included initially:

At the review level: All published systematic reviews or meta analyses will be considered. Protocol papers, dissertations, comments and conference abstracts will be excluded.

At the study level: No restriction will be placed on the design of studies included in the individual reviews.

Primary outcome(s):

Physical activity at the study level.

Including but not limited to:

- Objectively measured outcomes – device outputs (steps/PAL etc)
- Self report questionnaire
- Exercise capacity
- Physical fitness
- Energy expenditure
- Physical endurance (if a measure of fitness)
- Reduction in sedentary behaviour
- Training effect

Secondary outcomes:

1. Definition of a brief intervention at the review level.
2. Intervention characteristics' at the study level.

Data Screening:

Both review level and study level criteria will be susceptible to screening.

Phase 1 screening – Titles and Abstracts

Title and, where necessary, abstracts will be assessed for obvious irrelevance based on aforementioned inclusion criteria by LL.

Phase 2 screening – Abstracts

Screening tools for abstract assessment will be piloted prior to formal screening and adjusted if necessary. Abstracts will be assessed formally for eligibility using an

electronic data screening spreadsheet incorporating each of the inclusion criteria. At least two reviewers associated with the VBI programme will independently assess articles. The reviewers will not be blinded to the administrative details of the articles (authors, institutions, journal of publication and results). Articles will be sorted into 1 of 3 possible categories:

1. Retrieve full text (articles meet all inclusion criteria.)
2. Query-retrieve full text (title and abstract does not report enough information to determine relevance.)
3. Discard (article does not fulfil at least one of the inclusion criteria.)

Discrepancies between reviewers will be discussed and resolved.

Phase 3 screening – Full texts

Screening tools for full text assessment will be piloted prior to formal screening and adjusted if necessary. Full text articles from categories 1 and 2 above, will be retrieved. Articles will be assessed for eligibility using an electronic data screening spreadsheet. At least two reviewers associated with the VBI programme will independently assess the articles for eligibility. The reviewers will not be blinded to the administrative details of the articles (authors, institutions, journal of publication and results.) Articles will be sorted into 1 of 2 possible categories:

1. Eligible for inclusion (articles meet all inclusion criteria.)
2. Discard (article does not fulfil at least one of the inclusion criteria.)

Discrepancies between reviewers will be discussed and resolved.

Phase 4 screening – Reviews assessed for inclusion of studies assessing very brief interventions

Screening tools for full text assessment will be piloted prior to formal screening and adjusted if necessary.

Full text articles from category 1 above, will be screened. Reviews will be assessed for eligibility on the basis of whether or not they contain studies assessing very brief interventions as defined by the authors (see above.) An electronic data screening spreadsheet will be used. At least two reviewers associated with the VBI programme will independently assess the articles for eligibility. The reviewers will not be blinded to the administrative details of the articles (authors, institutions, journal of publication and results.) Articles will be sorted into 1 of 2 possible categories:

1. Eligible for inclusion (articles meet all inclusion criteria.)
2. Discard (article does not fulfil the inclusion criteria.)

Discrepancies between reviewers will be discussed and resolved.

Data Extraction:

Both review level and study level criteria will be susceptible to data extraction.

Data for extraction is as follows:

At the review level:

- 1) Methodological quality.
- 2) Any definitions of brief/very brief interventions reported.
- 3) Number of studies reported in review that test very brief interventions.
- 4) Any additional relevant details pertaining to brief interventions.

At the study level:

- 1) Details of studies evaluating very brief interventions, reported in review.
- 2) Intervention components (e.g. content/materials, provider, method of delivery, setting, duration, frequency.)
- 3) Study outcomes concerning measure of physical activity.
- 4) Resource use

Risk of bias (quality) assessment:

Quality assessment of the reviews will be examined using AMSTAR (Shea, Bouter et al. 2007; Shea, Grimshaw et al. 2007; Shea, Hamel et al. 2009). It will be integrated into the data extraction proforma and will therefore be completed independently by at least two reviewers associated with the VBI programme. Discrepancies will be discussed and resolved. The quality of the included reviews may affect the nature of the review of reviews' conclusions, but poor quality reviews will not be excluded from synthesis.

Strategy for data synthesis:

Interventions will be classified in terms of number and duration of contacts. This classification system will be developed following data extraction. A narrative synthesis of the data will be conducted.

Objective 1: The reviews will be alphabetically tabulated, including the number of studies using a brief intervention that it contained and the quality of the review. Primary studies will be tabulated (if studies appear in multiple reviews, the record with the most information provided will be tabulated) and study, intervention details, outcomes and quality (if reported in review) reported. They will be grouped according to the duration and number of intervention contacts. The studies will be further sub-grouped by a general assessment of their quality. The intervention features of very brief interventions will be described, compared (using the narrative), and discussed in association with the reported outcomes of the studies. The robustness of the synthesis will be discussed using information relating to the quality of the studies.

Objective 2: Any reported definitions of what constitutes a brief intervention will be tabulated. The definitions will be compared between reviews where applicable and discussed in the context of the quality of the reviews as well as the wider context of what these definitions say about the literature on brief interventions. A distinction will be made, if necessary, between what review authors have classified as brief and what the review team classify as brief.

Objective 3: Reviews will be grouped in terms of their reporting of key intervention features; primarily whether the reviews reported on intervention content, mode of delivery, provider, setting, duration, outcomes measure, behaviour of interest and follow up (based on the data from the data extraction forms). Adequacy of reporting will be compared between reviews, generally and in terms of individual items.

Analysis of subgroups or subsets:

None planned.

Keywords:

MeSH terms:

Exercise

Review

Intervention Studies

Adult

Aged

Health Behavior

Free text terms:

physical activity

Current review status:

Ongoing