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Dietitian-led clinics in primary care: A scoping review protocol

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Conflicts of Interest

Mary Hickson and Avril Collinson are both members of the British Dietetic Association (funder) and registered dietitians. Amanda Wanner declares no conflict of interest.

Abstract

Review objective and questions: The objective of this scoping review is to examine and map the existing evidence exploring or evaluating the implementation, cost and/or effectiveness of dietitian-led clinics in primary care.

- Does a dietitian-led clinic in general practice and/or primary care improve patient satisfaction and clinical outcomes?
- Does a dietitian-led clinic in general practice and/or primary care reduce costs?
- Is it feasible to implement dietitian-led clinics in general practice and/or primary care?

Introduction

The World Health Organization (WHO) describes primary care as “first-contact, accessible, continued, comprehensive and coordinated care. First-contact care is accessible at the time of need; ongoing care focuses on the long-term health of a person rather than the short duration of the disease; comprehensive care is a range of services appropriate to the common problems in the respective population and coordination is the role by which primary care acts to coordinate other specialists that the patient may need”.[1(para.3)] The terms ‘general practice’ and ‘family medicine’ are both synonymous with primary care and may be used interchangeably in the literature. How primary care is organized varies between countries and may be centred on the general practitioner (GP) (or primary care physician) or take a more team orientated approach recognising the primary care team (or family medicine team). The WHO describes the primary care team as “a group of fellow professionals with complementary contributions to make in patient care”,[1(para.5)] of which a dietitian may be one member.

Dietitians have a skill-set that enables them to lead on the therapeutic support provided to patients with certain conditions that are amenable to treatment with dietary manipulation. Examples of such conditions include diabetes mellitus, cardio-vascular disease, over- and under-weight, food allergies, chronic obstructive pulmonary disease, gastrointestinal, renal and liver conditions. Dietitians have historically worked largely in acute hospital settings[2] however, there is little information on dietitians who work in primary care. This may be a service commissioned by the general practice to private dietitians, or contracted from dietetic services based in the acute or community sectors.

Throughout the developed world healthcare is changing. Some of the contributing factors include demographic shifts such as the ageing population, the increase of long-term conditions, increase of dementia, changes in the diversity of society, health inequalities and limited funding.[2] This has led to

an increased demand within the primary healthcare sector at the same time as GP numbers in many countries are declining, including the UK,[3] USA,[4] and Australia.[5]

Given the skill set of the dietitian it may be that new models of care with the primary care setting, could see dietitians taking a lead in delivering primary care for relevant diagnosed patients and providing cheaper, more efficient and effective service in comparison to the traditional approach of GP support and referral for specialist treatment. Indeed, this has been promoted by the UK government as a way to tackle work pressures within primary care and general practice.[6, 7]

A dietitian-led clinic is any clinic run and managed by a registered dietitian, and in this scoping review is limited to the primary care setting, where the clinic is likely to support the work of GPs. This would mean that patients with relevant diagnoses (see above) could be referred by another healthcare professional, self-refer or be invited to the clinic for diet and lifestyle advice and support.

There are several systematic reviews that indicate how advice provided by a dietitian can improve outcomes in specific conditions, such as hypertension,[8] diabetes, weight loss and diet quality.[9] The evidence for gestational weight gain[9] and prevention of gestation diabetes[10] is weaker primarily due to lower quality study design. Other systematic reviews have explored interventions to manage weight in children[11] and adults,[12] type 2 diabetes,[13] diabetes prevention,[14] and Mediterranean diet and healthy eating,[15] but these studies were not specific to dietetic interventions, although they included studies examining dietetic care. They all showed that dietary interventions could improve outcomes, and some showed that care provided by dietitians achieved superior outcomes, but the quality of the study designs were often weak. Other original studies also support the view that dietitians and/or dietary counselling (which dietitians are uniquely trained to deliver) are effective in improving clinical outcomes in a number of health conditions.[16-20] Therefore, it would seem that greater utilization of dietetic interventions in the primary care setting could be an effective way to manage many common chronic diseases, however, it is important to demonstrate that interventions are effective in the setting in which they will be delivered.

A review by Mitchell et al.[9] is the only one available looking specifically at dietitians in primary care, and this included only randomised controlled trials. They did not search for any particular disease category but looked at any patient receiving dietetic consultations. The conditions treated included HIV, cardiovascular disease, obesity, hypertension, diabetes, impaired fasting glucose, gestational diabetes and colorectal cancer. The results show fair (Grade 2) evidence for dietetic consultations for adults in primary care settings for improvement in diet quality, diabetes outcomes (including blood glucose and glycated haemoglobin values), and weight loss outcomes (e.g. changes in weight and waist circumference) and to limit gestational weight gain. The evidence for controlling lipid levels and blood pressure is limited (Grade 3), but this review included only studies where the provision of nutritional care was exclusively by a dietitian. Many of the studies testing interventions for cardiovascular diseases have multi-disciplinary team interventions and these, with the dietetic contribution, would not have been included in this review.

Thus, there is some evidence for the efficacy of dietetic care in primary care. Nevertheless, there is a lack of information concerning the broader contribution dietitians may make within the primary care

setting, including cost effectiveness and the range of conditions that dietitians may successfully manage. There may also be useful qualitative information as well as quantitative work. A preliminary search of the *JBI Database of Systematic Reviews and Implementation Reports,* Cochrane Library, PubMed and CINAHL databases found no scoping reviews exploring dietetic care with the primary care setting. A search of the PROSPERO database found no similar systematic review protocol registered or ongoing.

Objective

The objective of this scoping review is to examine and map the existing evidence exploring or evaluating the implementation, cost and/or effectiveness of dietitian-led clinics in primary care.

Review questions

Does a dietitian-led clinic in general practice and/or primary care improve patient satisfaction and clinical outcomes?

Does a dietitian-led clinic in general practice and/or primary care reduce costs?

Is it feasible to implement dietitian-led clinics in general practice and/or primary care?

Keywords

Dietitian-led; primary care; general practice;

Inclusion criteria

Participants

The review will consider studies that include dietitian or nutritionist-led clinics treating patients with any conditions. Both terms will be considered because the professions are linked and the name varies between countries. However, to be comparable any dietitian or nutritionist-led studies would need to require the dietitian or nutritionist to have formal accreditation.

Concept

The proposed review is designed to explore the feasibility, organization and effectiveness of dietitian-led clinics within a primary care setting. Therefore, all studies with a focus on any aspect of dietitian or nutritionist led healthcare services for any disease group will be considered. Of particular interest will be any evidence of cost effectiveness in comparison to the usual organization of services.

Context

The context for this review will be primary care or general practice. General practice is part of primary care, but both terms will be of interest since services provided as part of primary care will be of interest even if not based in general practice. Both terms may be used interchangeably in papers and so it is important to identify all sources of evidence. Dietitian or nutritionist-led clinics in hospitals,

regional healthcare facilities or specialist centers will not be included. Where studies have been conducted in the community, they will be relevant if recruitment has included general practitioners.

This review will also only consider evidence from developed countries, since the settings are more likely to be comparable. It is recognised that healthcare is delivered and organized differently even in developed countries, but findings from developing countries will have less applicability. The World Bank country classifications will be used to decide which countries are deemed developing.[21]

Types of studies

This scoping review will consider all available publications that have a focus on dietitian or nutritionist led clinical care in a primary care setting. These may include experimental, quasi-experimental, observational and qualitative studies. Systematic reviews will be considered, as well as text and opinion papers, case studies, and relevant academic presentations, in both peer-reviewed and grey literature. Dietetic networks will be used to identify relevant grey literature from other countries.

Methods

The proposed systematic review will be conducted in accordance with the Joanna Briggs Institute methodology for scoping reviews.[22]

Search strategy

The search strategy aims to find both published and unpublished studies. The systematic search will be developed and run by an experienced information specialist (AW). The initial strategy was iteratively designed by testing search terms against a pre-defined list of relevant articles and tested in several different databases. The final strategy will be translated for use in each of the databases (an example of the Ovid MEDLINE search is in Appendix 1). The searches will be limited to the last 10 years, excluding studies prior to 2008. Limiting the search to the last 10 years ensures that the information retrieved will be as relevant as possible to today's healthcare setting. There will be no limit on language applied to the searches. The following databases will be searched: MEDLINE (Ovid), Embase (Ovid), PsycINFO (Ovid), CINAHL (Ebsco), AMED (Ebsco), British Nursing Index (Proquest), and Cochrane Library (Wiley). Next unpublished studies will be sought through requests to experts and professional bodies using existing dietetic networks, and through searching Open Grey, ClinicalTrials.gov and EU Clinical Trials Register. Finally, the reference lists of each of the included papers will be hand searched to identify any further studies.

Study selection

Following the search, all identified citations will be collated and uploaded into EndNote X8.2 (Clarivate Analytics, PA, USA) and duplicates removed. The set will then be uploaded to Rayyan QCRI[23] and titles and abstracts screened by two independent reviewers for assessment against the inclusion criteria for the review. Any disagreements will be solved by consensus or by the decision of a third reviewer. The full text of studies that may meet the inclusion criteria will be retrieved and re-screened to confirm inclusion. Full text studies that do not meet the inclusion criteria will be excluded and

reasons for exclusion will be provided in an appendix in the final systematic review report. The final full text papers will be imported into JBI System for the Unified Management, Assessment and Review of Information (SUMARI).

Papers will be included if the setting is based in primary care and general practice; it is regarding health service delivery in a developed country; it is about dietetic or nutritionist led clinics, consultations, advice or counselling; and the paper was published in or after 2008. Studies testing the efficacy of a nutrient, food or dietary pattern but involves a dietitian to deliver information will be excluded.

Data extraction

Data will be extracted from the included papers by two independent reviewers using an adapted version of the Joanna Briggs Institute results extraction instrument.[24] The data extracted will include specific details about the population, concept, context, study methods and key findings relevant to the review objective. This information will be tabulated including the following; author/s, year of publication, country, setting, purpose of the study, study design, intervention (where relevant), participants, relevant outcomes such as cost efficacy or relevant clinical outcome data, and key findings that related to the review question. The draft results extraction instrument will be tested on the first five papers and modified as necessary, further revisions may be made during the process of extracting data from the remaining studies. Modifications will be detailed in the full scoping review report. Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer. Authors of papers will be contacted to request missing or additional data, where required.

Presentation of the results

The extracted data will be presented in diagrammatic or tabular form in a manner that aligns with the objective of this scoping review. A narrative summary will accompany the tabulated and/or charted results and will describe how the results relate to the review's objective and question/s.

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Appendix 1

Example search for Ovid MEDLINE

#	**Searches**
1	dietetics/ or nutritionists/ or nutrition assessment/ or (dieti?ian* or dietetic*).ti,ab,kw.
2	(counse?ling or advice or consultation* or intervention).ti,ab,kw. or counseling/
3	((diet* or nutrition*) adj (counsel?ing or advice or consultation*)).ti,ab,kw.
4	(1 and 2) or 3
5	limit 4 to yr="2008 -Current"