Evaluating interventions aimed at promoting social participation of older people: A review of the literature

Wesley Jongen, Peter Schröder-Bäck, Helmut Brand

Department of International Health, School for Public Health and Primary Care (CAPHRI), Faculty of Health, Medicine and Life Sciences, Maastricht University, The Netherlands;

Corresponding author: Wesley Jongen
Department of International Health, School for Public Health and Primary Care (CAPHRI), Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands;
Telephone: +31622484468; E-mail: w.jongen@maastrichtuniversity.nl

Abstract

As a reaction to the growing amount of academic literature on the relationship between social participation and health outcomes such as quality of life, this article intends to explain how the effectiveness of interventions aimed at promoting social participation of older people can be evaluated, in order to identify good practices which are relevant for Europe. In doing so, this article assumes a positive relationship between social participation and the health of older people. Following a model for evaluating evidence on the effectiveness of health promotion interventions, this article analyses three systematic reviews for answering the above-mentioned research question. In general, group interventions with a strong interactive character, having an educational input or offering social support, targeted at specific groups of older people and including the older people in the development and implementation of the interventions, were considered as the most effective type of interventions. The systematic reviews analysed in this article, however, suffer from several serious weaknesses, concerning credibility of the research itself, completeness of the evaluated intervention outcomes, and transferability of the research evidence. Future research should be directed to more specific types of interventions promoting social participation and specifically to European interventions.

Keywords: *older people, quality of life, social participation.*

Introduction

Public health interventions in Europe focused on health promotion for older people are often based on the WHO principle of active ageing, defined as "the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age" (1). In this way, the adjective 'active' does not merely relate to being physically active, or being active in terms of employment, but also—and perhaps foremost when taking into account the often inevitable physical impairment and retirement of older people—in terms of social participation. During the last decade, academic literature on social participation of older people seems to point in the direction of a positive relationship with a variety of health outcomes like quality of life and wellbeing (2-4).

An example of the way the EU has put social participation of older people on the agenda, was by declaring 2012 as the European Year for Active Ageing and Solidarity between Generations. The European Year aims to urge policymakers and other relevant stakeholders, like public health professionals, to take action aimed at promoting active ageing in three domains: social participation, employment and independent living.

In this article we intend to answer the following research question: "How can the effectiveness of interventions aimed at promoting social participation of older people be properly evaluated, in order to identify good practices which are relevant for Europe?" In doing so, we propose an approach for evaluating evidence on public health interventions. Interventions aimed at promoting social participation amongst older people are captured here under this broad heading of public health interventions, because social participation is considered in this article as a way of promoting health or preventing ill health in communities or populations—hereby following the definition of public health interventions as proposed by Rychetnik et al. (5). The results of three systematic reviews will be compared on the basis of this approach. Finally, we will discuss whether the current scientific literature provides us with sufficient evidence for the potential identification of good practices relevant for Europe.

Methods

Although in general the academic literature shows an increasing interest in the concept of social participation of older people, there is no consensus in the literature about the exact definition of the concept. Interestingly however, a study conducted by Levasseur et al. which aims at systematically reviewing definitions of social participation specifically targets older people. This study revealed that most of the forty-three definitions it considered are centred around the explicit notion of interaction between the respective individual and others in society, instead of mere participation in activities or being amongst others (6).

Next, in the introduction of this article, a positive relationship between social participation and health was assumed. At the same time, however, a growing part of the academic literature actually contests this relationship (2). But, only few studies appear to have examined the specific influence of sex and age on the relationship between social participation and health. A striking example is the survey conducted in South Korea by Lee et al., whose results show that the effect of social participation on self-rated health rises as age advances. As the same survey shows a negative relationship between the degree of social participation and age—due to developments typically related to age, such as physical impairments, retirement or the loss of relatives—it urges social participation to be a basic consideration in health promotion strategies for older people (3). These findings are similar to those found for the European region, in a study conducted by Sirven & Debrand (2). Defining this relationship into more detail would be beyond the scope of this article. It suffices here to state that good indications exist within the academic literature for the existence of a positive relationship between social participation and health status of older people.

When turning to interventions aimed at promoting social participation amongst older people, social participation as such does not seem to be an easy target for policy makers and public health professionals. Instead, many existing health promotion interventions geared at increasing social participation of older people do so within the context of preventing social isolation (7). In this way, social participation activities are regarded as

indicators "promoting good health by protecting against the negative effects associated with social isolation" (8). Simultaneously, the bulk of evaluative literature considers interventions aimed at reducing social isolation, instead of improving social participation (9). It is exactly for this reason that this article deals with systematic reviews of interventions aimed at reducing social isolation. These systematic reviews were chosen for the obvious reason that these were the only three systematic reviews that were found in the literature, following a simple PubMed search strategy. For analyzing the systematic reviews, we applied an approach for evaluating evidence on the effectiveness of public health interventions based on the work by Rychetnik et al. (5). According to this approach, a critical appraisal of what constitutes best evidence in evaluative research generally focuses on three key considerations. First, one should consider whether the credibility of the evaluative research itself is sufficient in order to allow for sound evidence-based decisions on public health interventions. Next, the completeness of the evaluated intervention outcomes should be critically appraised. Finally, one should consider whether the research evidence is transferable.

Results

In the remainder of this article, the three systematic reviews that are applied will be labelled A (10), B (11) and C (12), in the order of publication. Using three systematic reviews allows for interesting insights in the weaknesses of each review, and the added value of each consecutive review. Table 1 provides a, precise and literal, overview of the characteristics of the three systematic reviews.

Generalizing from the three systematic reviews, it can be said that there is agreement within the available literature on the characteristics contributing to effective health promotion interventions aimed at reducing social isolation among older people. Interventions regarded as most effective were in the first place group interventions, that is, interventions with a strong interactive character between the participants and offered outside people's own houses. Within this category, especially interventions with a clear educational character or those offering social support, appeared to be effective. Examples for the former include discussion groups dealing with health-related issues or physical activity groups, while the latter typically refers to discussion groups with a more therapeutic character. Secondly, effective interventions appear to be focused on specific groups of older people, like those that have physical impairments, male or female, those with a cognitive impairment, those that have already lost their spouse etc. Thirdly, effective appear to be those interventions that allow the older people themselves to participate in the development and implementation phases of the interventions themselves, especially those older people that have a caring attitude towards others. Least effective appear to be one-to-one interventions, offered at people's own houses, like home-visiting and home nursing care arrangements. At the same time, this same literature agrees as well on the fact that although the interventions included in the systematic reviews may contain some of these characteristics, none of them seem to comprise all of these characteristics.

After having elaborated on the results of each of the systematic reviews, their evidence can now be evaluated, hereby following the model as outlined in the previous section of this article. Concerning credibility of the research, the three systematic reviews show large similarities. Firstly, in terms of their study design, being systematic reviews primarily based on RCTs, each could be referred to as approaching top level in the so-called evidence hierarchy. Secondly, regarding methodological flaws of the research, each of the reviews suffers from a bias towards studies published in English, (too) broad inclusion criteria, high degrees of heterogeneity among the included studies, and a limited number of high quality studies. Regarding the completeness of the interventions in the evaluated studies, striking is that only review C explicitly reports on health outcomes, while the other two reviews only report on health outcomes in an indirect way. On the one hand this is peculiar, as each of the reviews embraced the existence of a positive relationship between reducing social isolation and positive health outcomes. On the other hand, one could argue that this indirect reporting is obvious, as the prime outcome measure of each of the reviews is clearly stated as 'reducing social isolation'. Next, none of the systematic reviews reported in any meaningful way on the cost-effectiveness of the interventions they evaluated. Interestingly, the

Table 1. Characteristics of selected systematic reviews

	Systematic review A [10]	*Systematic review B [11]*	*Systematic review C [12]*
Characteristics of systematic reviews themselves			
Year of publication	2003	2005	2011
Country of publication	United Kingdom	United Kingdom	United Kingdom
Inclusion criteria	Included studies that: - "related to older people"; - "considered interventions targeting social isolation and/or loneliness"; - "described interventions intended to achieve health gain"; - "recorded outcome measures"; - "were published in English"; - "were published between 1982 and 2002".	Included studies that: - "related in full or in part to older people"; - "considered interventions that were intended to prevent or alleviate social isolation and/or loneliness in full or in part"; - "described health promoting interventions that enabled older people to increase control over and to improve their health"; - "recorded some form of outcome measures with or without process measures".	Included studies that: - "related in full/part to older people"; - "considered interventions that targeted people identified as socially isolated and/or lonely, and stated a clear and plausible aim to alleviate this"; - "recorded some form of participant level outcome measure, and reported sufficient outcome data for treatment effects to be obtained"; - "used a RCT or quasi-experimental design and included an inactive control group"; - "were published in English".
Characteristics of studies included			
Number of studies included	17	30	32
Years of publication	1982-2002	1970-2002	1976-2009
Countries were studies were conducted	USA (8) Australia (3) Canada (2) The Netherlands (2) Italy (1) Sweden (1)	USA (17) Canada (3) The Netherlands (3) Sweden (2) United Kingdom (2) Denmark (2) Germany (1)	USA (17) The Netherlands (6) Canada (3) Japan (2) Sweden (2) Finland (2)
Study designs	Randomized controlled trials (6) Quasi-experimental studies (3) Non-randomized post-treatment/test survey (3) Pre-post intervention studies (2) Cross-sectional survey (1) Observational study (1) Non-randomized matched control trial (1)	Randomized controlled trials (16) Non-randomised controlled trials (10) Other (4)	Randomized controlled trials (16) Quasi-experimental studies (16)
Types of interventions	Group interventions (6) One-to-one interventions (5) Internet usage (4) Service provision (2)	Group interventions (17) One-to-one interventions (10) Service provision (3)	Group interventions (19) One-to-one interventions (11) Service provision (1) Mixed mode (1)

importance of sophisticated knowledge on the cost-effectiveness of such interventions is though widely recommended by the reviews. Finally, applicability and transferability of the research evidence seems to be of particular interest if one seeks to identify good practices for the European region. Information on applicability can only be extracted from review B. In review C, applicability appears to be captured together with transferability under the heading of generalizability. Review A does not discuss both terms at all. Nonetheless, a more detailed discussion about applicability would be desirable, as it would provide us with more detailed information on the settings of the intervention processes. Perhaps as a result of this flaw, transferability is generally considered insufficiently

proven by the systematic reviews themselves, their own main argumentation being that the majority of studies were conducted in the United States of America. A more detailed overview of the above findings is provided in Table 2.

Table 2. Evaluation of evidence of selected systematic reviews

	Systematic review A (ref. 10)	***Systematic review B (ref. 11)***	***Systematic review C (ref. 12)***
Credibility of research			
Study design	Systematic review, based to a large extent on RCTs (6/17).	Systematic review, based to a large extent on RCTs (16/30).	Systematic review, based to a large extent on RCTs (16/32).
Methodological problems	- Limited number of interventions evaluated. - Bias towards studies published in English. - Broad inclusion criteria.	- High degree of heterogeneity among evaluated interventions. - Limited number of high quality studies. - Bias towards studies published in English, despite the fact that the English language was not an inclusion criterion in this review. - Broad inclusion criteria.	- High degree of heterogeneity among evaluated interventions. - Limited number of high quality studies. - Bias towards studies published in English. - Broad inclusion criteria.
Completeness of intervention outcomes			
Information as required by stakeholders	- Only indirect reporting on health outcomes. - Recognition of limited value of results overall, due to limited number of studies included.	Only indirect reporting on health outcomes.	Clear reporting on health outcomes (social, mental and physical health).
Unanticipated results	Rejection of the broadly supported effectiveness of health promotion interventions aimed at reducing social isolation among older people.	No information on unanticipated results.	No information on unanticipated results.
Cost-effectiveness	- Reports on cost-effectiveness of two of the interventions. - Recognizes that cost-effectiveness analyses should indeed be performed before interventions are implemented.	No information provided on cost-effectiveness.	- No information provided on cost-effectiveness. - Argues that, despite growing evidence-based support for the effectiveness of health promotion interventions aimed at reducing social isolation among older people, the cost-effectiveness of successful interventions continues to be under-researched.
Transferability of research evidence			
Applicability	- No detailed information on setting of intervention process. - No discussion about applicability.	- Detailed information on setting of intervention process. - For most studies, the imprecise definition of the term 'social isolation' considered as a	- No detailed information on setting of intervention process. - No discussion about applicability.

Discussion

This article has attempted to contribute to the growing amount of literature on the effectiveness of health promotion interventions aimed at increasing social participation among older people. Social participation was considered in this regard as having a positive influence on the health status and quality of life of older people.

The strength of this article is probably foremost its reliance on three systematic reviews, which gave a comprehensive insight into the available evidence on the topic in question. Although each of the systematic reviews did not depend solely on RCTs, this does not necessarily constitute a weakness in the quality of the evidence. Indeed, the academic literature generally depicts studies that are not RCTs as having a high risk of bias. On the other hand, many authors agree that low quality RCTs might be of less value than high quality non-randomized controlled trials (13). However, due to the high degree of heterogeneity of the evaluated interventions, as well as due to a generally low quality of the studies included, each of the systematic reviews admitted the existence of a high risk of bias. Another weakness of the systematic reviews was the inappropriate range of outcomes in light of the research question of this article. On the other hand, the relative lack of in depth information on health outcomes and cost-effectiveness measures may constitute possibilities for future research. The latter is particularly true for research with a clearer focus on specific kinds of interventions. A final weakness in the systematic reviews was its predominant reliance on quantitative outcome studies for making judgments about applicability and transferability. As is proposed by Rychetnik et al., qualitative, or at least quantitative observational studies, may be required to bridge the gap between the research evidence on the one hand and the practice of a local setting on the other hand (5).

Apart from the above-mentioned methodological flaws in the applied systematic reviews as well as in the studies they included, this article itself suffers from the problem of reverse causality. For example, older people who have a bad health condition may not be able to engage in, or uphold their level of, social participation in the first place. A solution to this problem may be to draw more attention to longitudinal studies, instead of the current focus on cross-sectional studies. A second limitation stems from the fact that the available evaluative research studies on health promotion interventions primarily deal with the concept of reducing social isolation instead of increasing social participation.

Nonetheless, this observation of a gap in the available research provides opportunities for future research. It may be interesting to step aside from research that encompasses all of these more general intervention categories, like group interventions and one-to-one interventions, and instead conduct a more in depth evaluation of the category that was identified as the most effective. Moreover, taking into account the initial European focus of this article, the fact that each of the currently available systematic reviews primarily evaluated interventions conducted in North-America, and the transferability problems identified due to this latter point, further research could be specifically geared towards European interventions. However, one should also take into account that the availability of sufficient numbers of high quality studies on such interventions is limited in many European countries. Moreover, if case such studies exist, they are often not published in English. Such practical problems substantially hamper the possibility for conducting the preferred research. Therefore, one could instead consider conducting research on one specific European country, and/ or on the category that was identified as the most effective.

In summary, this category can be described as group interventions with a strong interactive character, particularly those with an educational input or offering social support. Moreover, such interventions should be focused on a specific group of older people and give these older people the opportunity to participate not only in the activities as such, but also in the development and implementation of the interventions. Certainly, the increase of social participation of socially isolated older people does not occur overnight, nor will its effects on health status and quality of life manifest itself immediately. However, referring for example to the current European Year of Active Ageing and the various local initiatives attached to it, the topic is becoming already firmly established on the policy agenda. Especially for policy makers and health

professionals it is of key importance to remember that increasing social participation of older people is a process, which cannot simply rely on one social activity once in a while.

Competing interests

The authors declare that they have no competing interests.

References

1. World Health Organization (2012). What is "active ageing"? URL: http://www.who.int/ageing/active_ageing/en/index.html

2. Sirven N, Debrand T. Social participation and healthy ageing: an international comparison using SHARE data. Soc Sci Med 2008;67(12):2017-2026.

3. Lee HY, Jang SN, Lee S, Cho SI, Park EO. The relationship between social participation and self-rated health by sex and age: a cross-sectional survey. Int J Nurs Stud 2008;45(7):1042-1054.

4. Gilmour H. Social participation and the health and well-being of Canadian seniors. Ottawa: Statistics Canada; 2012.

5. Rychetnik L, Frommer M, Hawe P, Shiell A. Criteria for evaluating evidence on public health interventions. J Epidemiol Community Health 2002; 56:119-127.

6. Levasseur M,Richard L, Gauvin L, Raymond E. Inventory and analysis of definitions of social participation found in the aging literature: proposed taxonomy of social activities. Soc Sci Med 2010;71(12): 2141-2149.

7. European Commission. Social participation and social isolation. Brussels: Eurostat; 2010.

8. Kawachi I, Berkman L. Social cohesion, social capital, and health. In: Kawachi I, Berkman L. Social Epidemiology. New York: Oxford University Press; 2000. p. 175-190.

9. Cornwell EY, Waite LJ.Measuring social isolation among older adults using multiple indicators from the NSHAP study. J Gerontol B Psychol Sci Soc Sci 2009; 64:38-46.

10. Findlay RA. Interventions to reduce social isolation amongst older people: where is the evidence? Ageing Soc 2003; 23(05):647-658.

11. Cattan M, White M, Bond J, Learmouth A. Preventing social isolation and loneliness among older people: a systematic review of health promotion interventions. Ageing Soc 2005; 25(1):41-67.

12. Dickens AP, Richards SH, Greaves CJ, Campbell JL. Interventions targeting social isolation in older people: a systematic review. BMC Public Health 2011; 11(647).

13. Britton A, McKee M, Black N, McPherson K, Sanderson C, Bain C. Choosing between randomised and non-randomised studies: a systematic review. Health Technol Assess 1998; 2(13):1-124.