

## Voluntary work for maintaining the physical and mental health of older volunteers: Title for a systematic review

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# **VOLUNTARY WORK FOR MAINTAINING THE PHYSICAL AND MENTAL HEALTH OF OLDER VOLUNTEERS: A SYSTEMATIC REVIEW**

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## **1. BACKGROUND**

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As the baby boom generation (born 1946 to 1955) grows older, social scientists and policy makers have taken an intense interest in how their aging and eventual retirement from the full-time labour force will affect society.

A fundamental public policy challenge in the Organization for Economic Co-operation and Development (OECD) member countries<sup>1</sup> has been the issue of the increasing imbalance between the growing cohorts of older adults not working and the shrinking cohorts of adults in the age range of labour force participation (age range 20-64) (OECD, 2015). In only 15 years, the share of the population aged 65 and over in the OECD countries has increased by more than 3 percentage points; from 13 percent in 2000 to more than 16 percent in 2015 (OECD.Stat, data extracted August 10, 2016). The effect of an aging population on a country's societal support burden is often measured by the older dependency ratio, which is the ratio of the older population to the working-age population. The OECD average older dependency ratio (ratio of individuals aged 65 and above to those aged 20-64) has increased considerably over the last half century, from 17.9 in 1970 to 27.5 in 2015 (OECD.Stat, data extracted August 10, 2016). The problem is more pronounced in Europe than in the US; the older dependency ratio was 25.0 in the US in 2015 and as high as 31.3 in Europe<sup>2</sup> in 2015 (OECD.Stat, data extracted August 22, 2016).

In addition to the effect of the large baby boom generation growing older, the average duration of expected years in retirement has increased. In 1970, men in the OECD countries spent on average 11 years in retirement and by 2014 this average had increased to almost 18 years (OECD, 2014). The increase for women has been from 15 years in 1970 to 22.3 years in 2014.

The increase in average duration of years in retirement is partly due to increased longevity and partly due to earlier retirement. Although the effective age of retirement (the average effective age at which workers withdraw from the labour force) decreased between 1970 and

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<sup>1</sup> Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

<sup>2</sup> For the purpose of this review, 'Europe' is defined as the 27 European Union (EU) countries, namely: Belgium, France, Italy, Luxembourg, Netherlands, Germany, Denmark, Ireland, United Kingdom, Greece, Spain, Portugal, Austria, Sweden, Finland, Malta, Cyprus, Slovenia, Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria.

2001, it slowly started to increase in 2004 (OECD, 2014). In 2014 the effective retirement age was on average 64.6 (63.2 for women) in the OECD countries; a bit higher in the US (65.9 for men and 63.2 for women) than in Europe<sup>3</sup> (62.9 for men and 61.7 for women) (OECD.Stat, data extracted August 22, 2016). Life expectancy at the effective retirement age has also increased substantially during this period. Recently, the increase in longevity has been fairly equal to that of the effective exit age from the labour market, and potential years in retirement have stabilised (OECD, 2014).

By 2050, the population aged 65 and over in the US is expected to grow to almost 21 percent and the older dependency ratio is estimated to increase to 38 (OECD.Stat, data extracted August 22). In Europe, the percentage of the population aged 65 and over is expected to grow to almost 29 percent by 2050, and the older dependency ratio is estimated to increase to 55 (OECD.Stat, data extracted August 22). At a societal level, this growing imbalance raises serious concerns about the viability and funding of social security, pensions, and health programmes.

At an individual level, the concern is probably more that of aging well with the prospect of many years in retirement. The concept of aging well clearly implies maintaining health and effective functioning. Research suggests, however, that retiring for some carries the risk of a fast decline in health. The reason may be that retiring deprives people of the deep-seated needs they have for time structure, social contact, collective effort or purpose, social identity or status, and regular activity, which paid work generally provides (Jahoda, 1981; Jahoda, 1982; Jahoda, 1984). The absence of these latent supportive features of employment may be detrimental to the health of retired workers. In fact, according to Dave, Rashad and Spasojevic (2008), complete retirement leads to a 6-9 percent decline in mental health, a 5-6 percent increase in illness, and a 5-16 percent increase in difficulty performing daily activities over a six-year period.

Complete retirement in an early age thus threatens the ability of individuals to age well and societies as a whole aging well because of the societal burden resulting from health and functional limitations and associated costs. Several studies have demonstrated that subjective usefulness is strongly related to both physical and psychological health (Ranzijn, Keeves, Luszcz, & Feather, 1998; Ryan & Frederick, 1997; Ryff, 1989). The performance of other meaningful (for the individual) activities than working for pay may thus help maintain health and functional ability for older people.

Volunteering can play a significant role in people's lives as they move from work to retirement. According to Smith and Gay (2005), retirement is the trigger for volunteering for some older people, as it offers a 'structured' means of making a meaningful contribution in society once the opportunity to do so through work has been cut off. Some older people consider voluntary work as a way to replicate aspects of paid work lost upon retirement, such as organisational structure and time discipline (Smith & Gay, 2005). The same line of

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<sup>3</sup> See note 1

arguments for volunteering can be found in several other studies (see Chappell & Prince, 1997; Fischer, Mueller & Cooper, 1991; Greenfield & Marks, 2004; Newman, Vasudev and Onawola, 1985; Widjaja, 2010). Volunteering thus seems to provide a way of compensating for the losses due to retirement as identified by Jahoda (1981, 1982 and 1984), such as the need for time structure, social contact, collective effort or purpose, social identity or status, and regular activity. Several studies indeed argue that there is a potential health benefit to older volunteers and in particular retirees (Moen and Fields, 2002; Musick and Wilson, 2003; Young and Glasgow, 1998).

Using US data from 1995 and 2005, Einolf (2009) predicted that the baby boom generation's rate of volunteering at the age of retirement (in 2015) would be higher than earlier generations' rate of volunteering. Combined with the large size of the baby boom cohort, Einolf concluded that the total number of elderly volunteers would increase. The prediction seems to hold true, at least for those countries where it has been possible to locate relevant numbers for the baby boom generation's rate of volunteering. In Canada, the rate of volunteering for those aged 65 and over increased from 32 per cent in 2004 to 36 per cent in 2010 (Vézina & Crompton, 2012), and in Denmark the rate increased from 23 per cent in 2004 to 34 per cent in 2012 (Fridberg & Henriksen, 2014).

In the US, programmes have been initiated to integrate the aging population into voluntary work. Some programmes are organised in local non-profit organizations, referred to as Senior Corps Programs. "Senior Corps" is a network of national service programmes that provides the opportunity for people aged 55 years or above to apply their life experience to meeting community needs (see [www.seniorcorps.org/rsvp/senior-corps-programs-2/](http://www.seniorcorps.org/rsvp/senior-corps-programs-2/)). Specific programmes utilized by Senior Corps include the Foster Grandparents Program, the Retired Senior and Volunteer Program (RSVP), and the Senior Companion Program. The idea of engaging older people is not entirely new, however; the Foster Grandparents Program began as a pilot programme in 1965, the Senior Companion Program began in 1968, and RSVP was created as a nationwide program in 1969. A more recent initiative is the Experience Corps, which began in early 1996. One of the mission statements of this programme is to "provide significant benefits for the older Americans who participate" (Grimm, Spring & Dietz, 2007, p. 26).

Volunteering of the elderly thus seems to be on the increase and programmes designed specifically for this subpopulation are emerging. Volunteering may contribute to both individuals aging well and society aging well, as volunteering by the elderly at the same time relieves the societal burden if it helps maintain health and functionality for those who volunteer. It thus remains to be established to what extent volunteering impacts on the physical and mental health of those who volunteer.

Health status is often found to be an important predictor of volunteering among those aged 65 years or more, see for example Brown (2000) and Young and Glasgow (1998). The question that is important to answer is: Does good health predict volunteering or does

volunteering improve health (or maybe both)? Studies that simply assess the association between voluntary work and health outcomes cannot answer this question. Research using appropriate controls and outcome measures can, however, provide some relevant evidence on whether engaging in voluntary work might cause good health outcomes on older people. It is vital that an appropriate comparison group is used to establish the direction of cause. Does volunteering make people healthier, or are healthier people more likely to volunteer? Likewise it is vital that the health measures are objective. As stated in Wilson and Musick (1999, p. 153): “[C]ross-sectional designs that use participants to self-assess the impact of a volunteer program function as little more than market research for the agency concerned. Without a pre/post-test design and a control group, and without more objective and generalizable outcome measures, little can be learned of the benefits of volunteering from these studies”. The same worries concerning reliance on cross-sectional designs and self-assessment of health to establish causality can be found in Lum and Lightfoot (2005). Hence, considering the fact that the population under investigation in this review by nature volunteer into the intervention, we believe it is vital that an appropriate comparison group and access to relevant pre-tests and objective health measures are used to establish causality.

We are very clear that firm causal conclusions probably cannot be drawn from the studies we expect to include in the review, as we do not expect to find any studies based on randomised trials. However, a distinction can be drawn between studies that simply assess the association between voluntary work and health outcomes, and studies that control for important confounding factors, in particular pre-tests, and use objective health measures. Studies that control for important confounding factors and use objective health measures provide some evidence for considering possible causal effects. While conclusions about causal effects must be very tentative, it is important to extract and summarize the best evidence available.

An obvious question arises: is there any value in conducting a systematic review when it is likely that there are no trial based studies available? We think it is worthwhile as a systematic review may uncover high quality studies that may not be found using less thorough searching methods. Furthermore, if a systematic review demonstrates that high quality studies are lacking, this could encourage a new generation of primary research. Therefore, even though we expect not to find any trial based studies and only a few studies of voluntary work based on appropriate outcome measures and control group comparison, we still believe there is value in conducting the proposed review.

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## **2. OBJECTIVES**

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The main objective of this review is to answer the following research question: What are the effects of volunteerism on the physical and mental health of people aged 65 years or older?

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### 3. EXISTING REVIEWS

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To the best of our knowledge there are currently no systematic reviews assessing what is known about the causal effects of volunteerism on the health of older people. A review of the literature on the health benefits of volunteering can be found in Grimm, Spring & Dietz (2007).

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### 4. INTERVENTION

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Volunteering is a complex phenomenon and spans a wide variety of types of activities, organizations and sectors. The intervention of interest in this review is formal volunteering. Formal volunteerism can be described as voluntary, ongoing, planned, helping behaviour that increases the well-being of strangers, offers no monetary compensation, and typically occurs within an organizational context (Clary et al., 1998; Penner, 2002). We will define formal volunteering centred on four axes (as defined in Hustinx, Cnaan & Handy, 2010). These are:

1) *Free will*: Volunteering is a free choice; it is a voluntary action and is fairly self-explanatory. 2) *Remuneration*: The voluntary work offers no monetary compensation. There may be reimbursement for expenses incurred but otherwise the work is unpaid. 3) *Intended beneficiaries*: Volunteer work can be described as “unpaid work provided to parties to whom the worker owes no contractual, familial or friendship obligations” (Tilly & Tilly, 1994, p. 291). Thus formal volunteer work typically benefits strangers and is often referred to as non-obligatory helping (Omoto & Snyder, 1995). Informal ways of helping friends, neighbours, or relatives, such as running errands, providing transportation etc., which are typically motivated by an obligation to help intimate others, are excluded. 4) *Structure*: Volunteerism as defined here should involve planned and ongoing activities (as opposed to a spontaneous one-time activity). Such planned and ongoing activities often occur in some type of organisational context (Penner, 2002). An organisation defines the content of the volunteer work and formulates some expectations to the volunteer, including the tasks of the volunteer worker. The organisation produces plans, recruits the volunteers, educates them if necessary, and leads them. Thus, the relations that occur in the voluntary work are formal and different from the informal relations that are found between friends and family members to whom the volunteer may feel obliged (La Cour, 2014). Activities performed by individuals who, of their own accord, engage in the sustained, non-obligated helping of strangers will, however, also be included. We are aware that it may be difficult to distinguish such activities from informal ‘helping out’. An example of such an activity to be included (i.e., that is more than the informal helping out between friends and family members) is the ongoing volunteer work done under the auspices of ‘Venligboerne’ in Denmark. Venligboerne is an initiative that is managed by the civil society and people are linked together by a common identity and a common goal of creating an inclusive community for refugees. People can arrange, organise

and volunteer in local<sup>4</sup> joint initiatives such as establishing a café at the asylum centre to arrange large celebrations of festive seasons without being framed by an organisation with given structure (for more information see Kelstrup, 2016).

The volunteer work may be done in all organisational contexts such as religious organisations, educational organisations, health organisations political groups, senior citizen groups or related organizations.

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## **5. POPULATION**

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The “intervention population” are people aged 65 or over who are engaged in formal voluntary work. Studies where the majority of participants are aged 65 or over, or where results are shown for subgroups of participants aged 65 or over, will be included. The comparison population are people who are not engaged in formal voluntary work. We will include voluntary workers of both genders and all nationalities who perform all types of formal voluntary work as defined in the Intervention section.

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## **6. OUTCOMES**

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The primary focus is on measures of health. We will include physical health outcomes as well as mental health outcomes. All measures of physical health outcomes reported in studies using a comparable control group have to be objective in order to be included. As mentioned above Wilson and Musick (1999) highlight the problem with studies relying on self-assessment of the impact of volunteering. Self-assessment of health should not be confused with self-reported measures. By self-assessment we understand questions of the form: “Would you say the state of your health is excellent, good, fair, poor or very poor?” which will not be included. On the other hand, we do not expect that measures of mental health outcomes are obtained via structured clinical interviews. Instead we expect that self-reported questionnaires are used to screen for probable mental disorders.

The use of different instruments of detection may be an important source of variation for the incidence of measured mental health outcomes. Measures of health have to be standardized to be included, see below. General scales of well-being will be included if they are measured by standardized psychological symptom measures.

Examples of physical health outcomes include mortality, time until the onset of a serious disease (as for example a heart attack, stroke, cancer, arthritis), functional disability (measured by a standardized physical ability measure such as a difficulties in activities of daily living score (ADLs, see Katz et al., 1963)), or a difficulties in instrumental activities of daily living score (IADLs, see Lawton and Brody, 1969).

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<sup>4</sup> Currently there are more than 100 local groups in Denmark

Examples of mental health outcomes include depression, anxiety and mental health-related disability measured by standardized psychological symptom measures such as the Center for Epidemiological Studies Depression Scale (CES-D), the Hopkins Symptom Checklist and the Medical Outcomes Study – Short Form.

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## 7. STUDY DESIGNS

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The proposed project will follow standard procedures for conducting systematic reviews using meta-analysis techniques.

It is hard to imagine that a researcher would randomise the allocation of people to volunteer work. We therefore anticipate that relatively few randomised controlled trials on the effects of volunteer work on the health of the volunteers will be found. However, in the unlikely event that a randomised controlled trial is found, it will of course be included in the review. In order to summarise what is known about the possible causal effects of volunteerism, we will include all study designs that use a well-defined control group. Non-randomised studies, where voluntary work has occurred in the course of usual decisions outside the researcher's control, must demonstrate pre-treatment group equivalence via matching, statistical controls, or evidence of equivalence on key risk variables and participant characteristics. These factors will be outlined in the protocol, and the methodological appropriateness of the included studies will be assessed according to a risk of bias model.

The study designs we will include in the review are:

- A. Randomised controlled trials (where all parts of the study are prospective, such as identification of participants, assessment of baseline, and allocation to intervention, and which may be randomised, quasi randomised or non-randomised), assessment of outcomes and generation of hypotheses (Higgins & Green, 2008).
- B. Non-randomised studies (voluntary work has occurred in the course of usual decisions, the allocation to working voluntary and not working voluntary is not controlled by the researcher, and there is a comparison of **two or more groups** of participants).

Time points for measures considered will be:

- While actively engaged in voluntary work
- At cessation of volunteering to one year after cessation of volunteering
- More than one year after cessation of volunteering

Other criteria

Studies will not be excluded based on publication status, country of conduction, or language. Studies authored before 1960 will not be included.

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## **ROLES AND RESPONSIBILITIES**

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Please give a brief description of content and methodological expertise within the review team. It is recommended to have at least one person on the review team who has content expertise, at least one person who has methodological expertise and at least one person who has statistical expertise. It is also recommended to have one person with information retrieval expertise. Please note that this is the *recommended optimal* review team composition.

- Content: Anu Siren
- Systematic review methods: Trine Filges
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- Information retrieval: Kurt Mathiesen

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## **FUNDING**

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## **POTENTIAL CONFLICTS OF INTEREST**

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None known

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## **PRELIMINARY TIMEFRAME**

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- Date you plan to submit a draft protocol: within 6 months of title registration
- Date you plan to submit a draft review: within 18 months of protocol approval

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