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# Effectiveness of adult day care centres for improving quality of life in older adults in low- and middle-income countries: a systematic review

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## **Title of the review**

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Effectiveness of adult day care centres for improving quality of life in older adults 60 years and above in low- and middle-income countries: a systematic review

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## **Background**

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The growing older adult population raises the challenge of nations to meet the needs of community-dwelling seniors and their caregivers. Though improving the efficiency of home- and community-based care delivery is vital for the country, the ageing nations may be unprepared, and even more so with each country's economic constraints (Brown, Friedemann & Mauro, 2014). Chronic illness and disability can adversely affect older adults' functional independence and psychological well-being. Reduced independence among older adults at home and caregiver stress often accelerates the institutionalization, enhancing the public care costs, which becomes a burden on the entire community (Fields, Anderson & Dabelko-Schoeny, 2014). In such a scenario, more long-term resources would need to be provided to support the community-based ageing population, especially to facilitate their independence. Adult day programs for older adults have been suggested to be potentially beneficial rehabilitative, social, and health services to improve their functioning (Fields et.al., 2014).

Quality of life (QOL) has become an important concern in health care and social policy, and is defined as "the degree of satisfaction perceived with present life circumstances" (Graham & Longman, 1987). In many developed countries, including the Asian region, quality of life has even become a main goal when designing services for ambulatory clients (Hashizume, & Kanagawa, 1996). Although most older adults prefer to live at home as long as possible (Eckert, Morgan & Swamy, 2004), for those of who are unable to stay alone or feel isolated, adult day care may be a cost-effective and feasible alternate approach (DePalma ,2003; Logsdon, Pike , Korte & Goehring,2016).

Adult day care (ADC) centres are designed to provide therapeutic social and some health services to older adults. It facilitates interaction with a peer group, which is helpful for emotional and health support for these elders and a respite for the caregivers. The intended goal is to promote home-living, delay nursing home placement, and maintain and restore cognitive and physical functioning (DePalma, 2003; Logsdon et al, 2016; Brown et al, 2014). This may lead to improvement in psychosocial measures, such as "life satisfaction, quality of interpersonal relationships, and level of social activities and social integration" (Baumgarten, 2002). Adult day care centres can be seen as one service with clinical and public health benefits for both older adults and their family members, enhancing caregiver well-being, and for the impaired, more use of ADCs and less placement in nursing homes (Gaugler & Zarit, 2001).

Interventions at adult day care centres seem to improve the wellbeing of older adults but better-quality evidence is required in low-and middle-income countries with different cultural and economic backgrounds. The present review focuses on the available evidence on effectiveness of

adult day care services in improving the quality of life of older adults and reducing the care giver burden in LMICs.

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## **Policy relevance**

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Population ageing has profound social, economic and political implications for any nation. Increasing dependency ratio puts a burden on national health and social care systems. Every nation has to equip itself to face this challenge, considering their social circumstances, and taking lessons from those nations which already have systems in place targeting older adults requiring long term care support.

By 2050, 80% of older adults will be living in low- and middle-income countries. (Putri & Niken Lestari, 2018). Adult day care centres have developed as an alternative to provide seniors with better social and mental wellbeing, potentially improving their quality of life and reducing the family and national burden. Some countries have focused on this already, but there aren't enough centres. This review would bring attention to this and would enable practitioners and policymakers to focus attention of the need for such centres in LMICs.

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## **Objectives**

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### **Primary**

What is the effect of participation in adult day care centre on the quality of life of older adults in low- and middle-income countries?

### **Secondary**

1. How does type of service i.e. health, social, influence the QOL of older adults attending ADC?
  2. What is the impact of participation of older adults in ADCs on family caregiver burden?
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## **Existing reviews**

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Gaugler, J. E., & Zarit, S. H. (2001). The effectiveness of adult day services for disabled older people. *Journal of Aging & Social Policy*, 12(2), 23-47. doi:10.1300/J031v12n02\_03

Gaugler and Zarit (2001), conceptualized effectiveness of adult day care centres based on their literature review of all studies published after 1975 on Adult Day Care services in conjunction with other community-based services. They documented the client functioning, caregiver adaptation, and timing of nursing home placement as the outcomes. In participants they identified improvement in wellbeing but not in functioning, and less burden, strain and improvement in mental health among family caregivers who utilized ADC for caring of their older adults in need. They recognized the lack of focus on the type of services which made the difference. The review revealed that ADCs can be quite effective in providing caregivers emotional and psychological relief from daily demands of care if they were consistent users. The authors reported that drawing conclusions was difficult because of the heterogeneity of the focus, design and sample size, and underlined the need for evidence on effectiveness of the different models of care.

Fields, N. L., Anderson, K. A., & Dabelko-Schoeny, H. (2014). The effectiveness of adult day services for older adults: A review of the literature from 2000 to 2011. *Journal of Applied Gerontology*, 33(2), 130-163. doi:10.1177/0733464812443308

Fields et al (2014) conducted review on the effectiveness of ADCs on participant and care giver outcomes, and updated the “Effectiveness of ADC’s model” developed by Gaugler et al(2001) encompassing interventions along with attendance of participants and respite for care givers. The authors included both quantitative and qualitative studies and peer reviewed reports published in English, excluding conceptual articles, unpublished thesis, governmental and industrial reports (not peer reviewed). Attending adult day care centre was found to reduce the physical and emotional problems among the older adults and also acted as a step-down system from hospitals. Due to the heterogeneity in the type of interventions, ascertainment of effectiveness of ADCs on the client outcomes was difficult. So, authors emphasize the need for identifying the components of ADCs which make a difference in outcomes. (Fields et.al., 2014).

Ellen, M.E., Demaio, P., Lange, A., & Wilson, M. G. (2017). Adult day center programs and their associated outcomes on clients, caregivers, and the health system: A scoping review. *The Gerontologist*, 57(6), e94. doi:10.1093/geront/gnw165 [doi]

The scoping review documented the adult day care services and its outcomes in improving the health of participants and care givers. This review included only English articles published between the period of 2004 to 2014. The intervention chosen was participation in adult day care centres and the main outcomes were related to client and caregiver, access and utilization, and health system considerations. The review reported positive health-related, social, psychological, and behavioural outcomes for adult day care recipients and caregivers. They acknowledged the scarcity of evidence from low- and middle-income countries. Authors addressed the need for a systematic review to assess the impact of different models of care on specific outcomes for the older adults and their carers (Ellen, Demaio, Lange, & Wilson, 2017).

The identified reviews in this section (Gaugler & Zarit, 2001; Fields, Anderson, & Dabelko-Schoeny, 2014) did not follow standard systematic review methods such as PRISMA flowchart, and critical appraisal. The review by Ellen, Demaio, Lange, & Wilson (2017) was a scoping review to conceptually map and identify key gaps and findings from literature focused on ADCs, including the type of programs that exist, and their associated outcomes on improving health and strengthening health systems.

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## **Intervention**

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Adult day care centres are professionally staffed or supported by nurses, other health care workers, counsellors, doctors, providing protective, non-residential group facilities. It may be in the community environment or hospital based, the focus being, social, medical, or a combination of the two. It caters to daily living needs/ADLs, health (medical/nursing), recreational, psycho-social, nutritional, health educational needs, and caregiver support and well-being (Elisabeth & Carina, 2017). The beneficiaries may be older adults who cannot stay alone at home, who have

physical or mental health problems, or those who need assistance in self-care; and have informal, unpaid domestic care givers (Fields, Anderson, & Dabelko-Schoeny, 2014).

Therefore, the centres may have meaningful activities heterogenous in nature as per each centre's focus and needs of the beneficiaries. They include individualised care like assisting with walking, toileting, bathing and meals; providing physical, occupational, and speech therapies, targeted interventions related to the chronic conditions of the participants; and transportation. The trained nurse may provide assistance in medication, injections, catheterisation, tube feeding etc. Some centres provide job training programs, and sheltered workshops. Often, they have recreational and social activities; and music, art, and pet therapies. The intergenerational programs, care giver support and training, and respite care may also be included (Bilotta, Bergamaschini, Spreafico, & Vergani, 2010; Fields, Anderson, & Dabelko-Schoeny, 2014).

All adult day care centres serving health and social aspects of caring for the older adults, through activities in common facilities away from home, where the participants spend a few hours of the day on a regular basis will be the intervention considered in the current review.

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## **Population**

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Community dwelling older adults, aged above 60 years, attending day care centres in LMICs

Inclusion criteria:

1. Studies involving community dwelling older adults (above 60 years of age) in LMICs
2. Studies published in English and non-English studies. e.g. Spanish, French, German, Malay, and Chinese language

Exclusion criteria:

1. Studies involving older adults living in old age institutions and other institutions

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## **Outcomes**

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Primary: A multi-dimensional concept of QOL as a measurement of subjective well-being in physical, psychological, and social domains which are measured by quantitative methods using tools such as SF-36, WHO- BREF, OPQOL-35, Flanagan quality of life scale etc and using qualitative studies.

Secondary: Caregiver burden assessed using exposure to stressors and stress appraisals; such as Daily Record of Behaviour (DRB), measures of depression, coping and burden etc.

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## **Study designs**

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Randomized controlled trials, quasi experimental studies, cohort studies, case control studies, including qualitative and mixed method study designs where QoL might have been measured in qualitatively.

Other study designs such as case reports, case series, reviews, editorials, book reviews commentaries and letters to editors will be excluded.

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### **Potential conflicts of interest**

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None to declare

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### **Preliminary timeframe**

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- Date you plan to submit a draft protocol: November 2018
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