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POSTER ABSTRACT

# Long-term advantages of person-centred and integrated care: results of a longitudinal study on Embrace

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Klaske Wynia[1,2], Sophie L.W. Spoorenberg[1], Ronald J. Uittenbroek[1], Margot Jager[1], Hubertus P.H. Kremer[2], Sijmen A. Reijneveld[1]

1: University of Groningen, University Medical Center, Department of Health Sciences, Community and Occupational Medicine, the Netherlands;

2: University of Groningen, University Medical Center, Department of Neurology, the Netherlands

**Introduction**: Embrace1 is a population-based, person-centred, and integrated care service for community-living older adults that combines the Chronic Care Model with risk profiles based on a population health management model. A multidisciplinary Elderly Care Team organizes and evaluates care and support, with intensity depending on an older adult's risk profile. Embrace has been implemented since 2012 and showed positive outcomes after 12 months regarding patient outcomes, quality of care, and costs. Aim of this study was to assess the long-term outcomes, overall and by risk profile.

**Methods**: We performed a longitudinal study on patient outcomes, quality of care, and costs, with evaluation of change after 12, 24, and 36 months compared to baseline.

**Results**: In total, 1308 older adults participated in the study mean age 80.7 years SD 4.6, 55% female, 57% low educational level. The risk profile distribution changed after 12 and 24 months, with an increase in frail participants Robust 66% vs 39% after 24 months, Frail 17% vs 41%, Complex care needs 18% vs 20%.

Overall, general health EQ-VAS remained stable across measurement moments. Quality of life 'compared to the year before' SF-36 was stable after 12 months, and decreased after 24 months p=0.026, ES=0.12 and 36 months p<0.001, ES=0.29. Prevalence and severity of health-related problems GeriatrICS of those who had a problem at baseline decreased after 12 and 24 months regarding Mental Functions, Physical Health , and Mobility. Self-management PIH-OA increased after 12 months p<0.001, ES=20, stabilized after 24 months p<0.001, ES=0.20, and decreased after 36 months p=0.039, ES=0.14. Quality of care PAIEC and costs for health and social care remained stable after 12, 24 and 36 months. Outcomes between risk profiles differed, with mainly positive outcomes for older adults with complex care needs, who received individual support by a case manager. We found improvements after 36 months compared to baseline for general health EQ-VAS: p=0.033, ES=0.27, self-management PIH-OA: p=0.002, ES=0.38, quality of care PAIEC: p=0.002, ES=0.38, and costs e.g. social care: p=0.008, ES=0.36. Only a part of the frail older adults 33.3% after 12 months and 29.3%

after 24 months received individual support as intended in Embrace. We found negative outcomes for this group after 36 months for general health EQ-VAS: $p=0.057$, $ES=0.27$ and quality of life: $p>0.001$, $ES=0.61$.

Discussion and conclusion: Overall, long-term outcomes of Embrace for the older adults are beneficial, particularly for older adults with complex care needs. It seems that Embrace has halted the declining trends in general health and well-being associated with ageing, as well as the related costs increase.

Lessons learned: Implementation of Embrace among frail older adults can be improved.

Limitations: The lack of a control group.

Suggestions for future research: Further research should focus on preventive en proactive support programs for older adults.

Reference:

1- Spoorenberg SLW, Uittenbroek RJ, Middel B, Kremer HPH, Reijneveld SA, Wynia K. Embrace, a model for integrated elderly care: study protocol of a randomized controlled trial on the effectiveness regarding patient outcomes, service use, costs, and quality of care. BMC Geriatr. 2013;13:62.

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**Keywords:** longitudinal study; person-centered; integrated care; population health management; older adults

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