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WP7a-funding and financing of health promotion what has been done?

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Overview..

Main goal: to increase our knowledge and insight on the financing of health promotion.

How: systematic overview of the financing mechanisms of health promotion for the elderly in EU countries



Output

- 1 report related to WP7a
- Country profile – the Netherlands
-
- 4 policy briefs

Output...

1. Tambor, M., Pavlova, M., Golinowska, S., Arsenijevic, J., & Groot, W. (2016). Financial incentives for a healthy life style and disease prevention among older people: a systematic literature review. *BMC Health Services Research*, 16(5), 426.
2. Kampmeijer, R., Pavlova, M., Tambor, M., Golinowska, S., & Groot, W. (2016). The use of e-health and m-health tools in health promotion and primary prevention among older adults: a systematic literature review. *BMC Health Services Research*, 16(5), 290.
3. Arsenijevic, J., Groot, W., Tambor, M., Golinowska, S., Sowada, C., & Pavlova, M. (2016). A review of health promotion funding for older adults in Europe: a cross-country comparison. *BMC Health Services Research*, 16(5), 288.
4. Arsenijevic, J., Groot, W. (2016). *Older migrants and life style behaviour-do they have a gut for a healthy life-style?. Submitted for publication*
5. **Arsenijevic, J., Groot, W.(2016). *Physical activity on prescription schemes (PARS): Do programme characteristics influence effectiveness? Results of a systematic review and meta-analyses. BMJ open, upcoming***

What is physical activity on prescription?

- **Health promotion programs** delivered through primary health care institutions to increase physical activity among risk population groups
- **To whom:** people with sedentary life-style, people with diagnosed chronic diseases, people with mental health problems
- **Where:** Australia, Belgium, Canada, Denmark, Finland, Germany, the Netherlands, New Zealand, Portugal, Sweden, Spain, UK, US



Example of one intervention-physical activity on prescription

- Tailor made intervention
- Free access to community leisure centres
- Under supervision of health professionals



- **Same goal, different names, different designs, different evidence in different countries**



This study focuses on:



- To examine the differences in design in different countries
- To examine the differences in effectiveness based on self-reported physical activity and adherence rate



Methods: Systematic literature review with meta-analyses and meta-regression

- Protocol – established before the search
- Inclusion and exclusion criteria
- **Key words:**

Chain I: *(((exercise on referral) OR physical activity on prescription) OR exercise on prescription) AND primary care*

Chain II: *((((((exercise on referral) OR physical activity on prescription) OR exercise on prescription) OR medicine is exercise) OR green prescription) AND health promotion) AND primary care*

- **Where:** PubMed, EBASCO



Methods: Systematic literature review

Study characteristics: design, sample, follow up period, outcomes related to physical health, outcomes related to mental health, cost-effectiveness, country of origin

Quality of the study: EPHPP “Quality Assessment Tool for Quantitative Studies”

Program design characteristics: reason for referral, who can prescribe, where is taken, type of physical activity, duration of the program, users payments



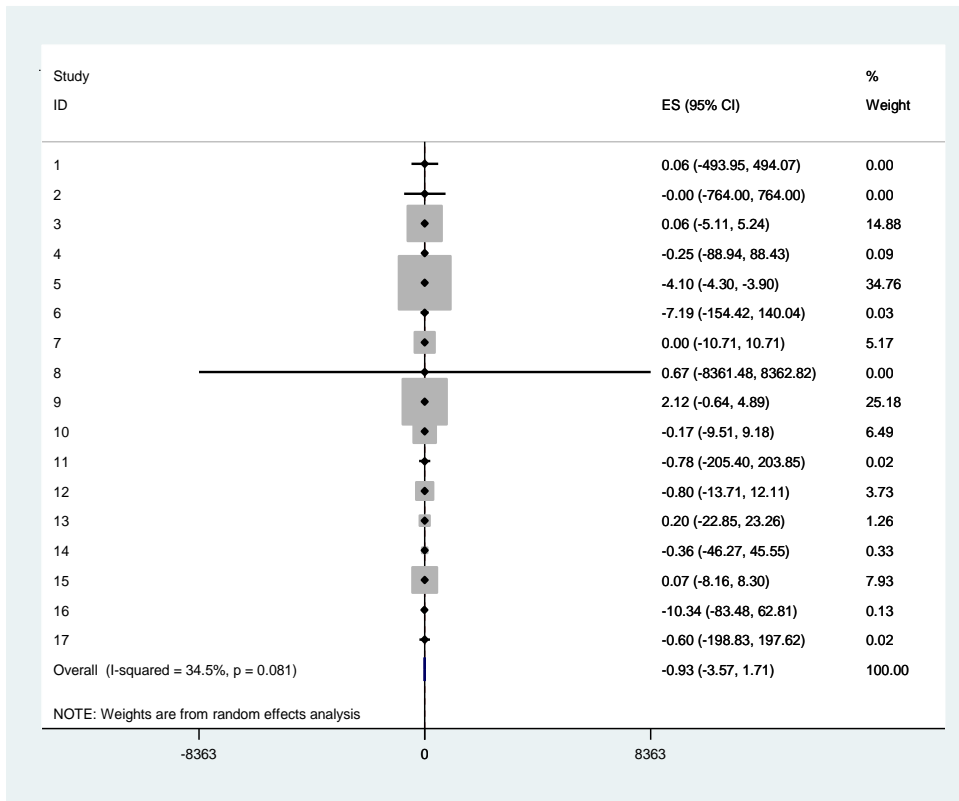
Meta analyses and meta regression

- **Two effect size measures:**
- difference in the proportion of people who adhere to physical activity after PARS and those who do not adhere
- Cohen's d –standardized difference between two means related to self-reported level of physical activity
- **Covariates**
- **Different design characteristics**



Results...

Meta analyses of physical activity level among participants



37 studies from 9 countries

31 included in meta regression

17 included in meta-analyses of physical level

Results ...



Results from meta-regression using difference in proportion of adherence rate		
Independent predictors	Coefficient	SE
Quality of the study	-0.385	0.375
Duration of the program	0.005	0.007
Follow up period	0.016**	0.009
Including people diagnosed with diabetes	0.226**	0.120
Including people diagnosed with cardiovascular diseases	-0.263*	0.119
Including people diagnosed with obesity	0.004	0.145
Including people with sedentary life style behavior	0.052	0.008
Studies originating outside Europe	-0.257*	0.014

Conclusions

- **Evaluation:**

all chronic diseases or just particular one?

one chronic disease per evaluation study?

- **Important:**

- Targeting

- Personal preferences

- Small co-payments are not obstacles



Assessing publication biases and dealing with heterogeneity

- Effects size measure: Cohen's D = Egger's test

Egger's test				
	Coefficient	Standard Error	T-statistic	P value
slope	-4.12	0.12	-35.05	0.000
bias	0.58	0.28	2.02	0.050

- Effect size measure: differences in proportions of adherence rate = Begg and Mazumdar's rank correlation tests
- No correlation = no biases

Thank you for your attention!

