

## Interest in participation in a peer-led senior health education program

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### Abstract

A study was made of the characteristics of older adults showing an interest in participating in a health education course given by peers. Determining the degree of interest in health education is important for assessing the impact on the target-population and evaluating the dissemination strategy. In the course 'Successful Aging' groups of older adults came together to discuss health related issues. The course was given by senior health educators aged 55 years and over from the peer group. To determine interest in the course answer cards were sent with a letter of invitation to all independently living inhabitants aged between 55 and 79 in a Dutch community. The rate of expressed interest in the course was 5.8%. Interest was highest among females in the 55–64 age group, the unmarried and those with low wellbeing. Males in the age group 65–79, females aged 75–79, those with a lower socio-economic status and the inactive were comparatively less interested. Subscription to the course was distinguished from mere interest in the course. From those who expressed interest, more people of low socio-economic status, with a reduced level of wellbeing, many physical limitations and poor self-efficacy actually subscribed. It is concluded that the health education program will be continued and that special attention will be paid to groups that showed lower levels of uptake. Involving intermediates from these groups in the course development is recommended. © 1998 Elsevier Science Ireland Ltd.

*Keywords:* Participation; Older adults; Peer education

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### 1. Introduction

Health education can play an important role in the prevention of disease in older adults and help to improve the quality of their life. There is a growing belief that health gains are even attainable in old age [1–5]. Preventive measures such as seeking changes regarding alcohol and tobacco use, diet or exercise are to be recommended for all ages, including the

oldest. Other interventions are uniquely 'geriatric', such as education to prevent falls or memory training [2,3]. The body of literature on the relevance and effects of these geriatric preventive efforts is growing [6–12]. Health education as a primary prevention strategy can help older adults to obtain information and learn new skills, enabling them to adopt or maintain a healthy life style [13,14].

This article focuses on the interest of a group of Dutch senior citizens showed in an educational course. There is only limited information available on the degree of interest in participation in health

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education programs and the characteristics of participants. The following characteristics are relevant to specify subgroups of participants: gender, age, marital status, social support, socio-economic status, social participation and self-efficacy. These characteristics are related to the perceived or self-reported physical and mental health of older people [15–23]. Research shows that perceived health in the elderly is a predictor of mortality as an objective health indicator [24,21]. Studies of participation in health education report that interest in health programs is highest in women and for the younger members of the old age group [25–28]. Also, the goal of the education program seems to be a decisive factor when the degree of participation in society of the attenders is determined. In a program in which educators visited the elderly at home to discuss various health risks, those willing to participate were more active in clubs or informal groups [27]. In another community program promoting ‘taking greater control of your health in future’ participants showed less social activity [26]. The effect of marital status and social support on participation is not clear. The distribution of socio-economic status and level of self-efficacy among participants is sometimes not in accordance with that of the target groups eligible for joining a health education program. Participation is often highest in the higher socio-economic groups [25–28]. This result is in agreement with findings that adoption of innovations increases with the socio-economic status of individuals, however, because of the relationship between socio-economic status and inequalities in health, health education programs are often aimed at deprived groups [29,30]. Another discrepancy between the target-population of a program and participation, can be expected in the field of self-efficacy. Self-efficacy is the ability to attain certain desired behaviours as judged by the individual and is a strong predictor of behavioural change [31,32]. Many health education programs intend to promote self-efficacy related to a specific health behaviour, however there is evidence that individuals prepared for behavioural change, and probably ready to follow a course, judge their self-efficacy to be higher than people who are not yet thinking of changing their lifestyle [33,34]. Finally, when looking closer to the health status of participants, again interest varies with the objective of the

program. In the community program to enhance control of health, mentioned above, participants experienced poorer mental health, while the home-visits program found that participants had a better mental health level [26,27].

Most of the above mentioned studies refer to programs run by professional workers. No information has been published about how health education led by older peers is received. This information is relevant to assess the impact of a program at population-level and the success of the dissemination strategy [35]. This paper deals with the dissemination of the course ‘Successful Aging’, aimed at older adults and using members of the peer group as educators. The following research questions are addressed in this paper. Which subgroups of older adults expressed interest in the course? What were the characteristics of those who actually subscribed for the course? What were the rates of expressed interest among the subpopulations? Was the dissemination strategy used suitable?

## **2. The course ‘successful aging’**

The course ‘Successful Aging’ was born out of discontent with traditional health education programs in The Netherlands. These programs focus too much on the problem side of disease, and too little on health promotion. Furthermore, the programs are often designed by professionals with little or no contribution to the program planning from older adults. In ‘Successful Aging’, the peer educators aged 55 and over (called senior health educators in the project) were involved strongly in the planning and guidance of the course. The senior health educators were trained intensively in a program at a higher educational level, for one day per week for a year [36]. The training enabled them autonomously to prepare and pass on the health messages. For the course ‘Successful Aging’, the peer educator introduced the topic at issue before an audience of twenty older adults, followed by peer facilitated discussion. The course consisted of four meetings covering topics requested by the participants.

The improvement of the physical, psychological and social wellbeing of participants was central to the course. The course was promoted as an oppor-

tunity to exchange experiences and to learn from other people how to grow old successfully. The course theme 'Successful Aging' was depicted as adding 'extra life' to your existence. Course targets concerned behaviour change on topics like physical exercise, memory training and sleeping habits. The senior health educators were put into action to help fellow citizens to live an independent active life in which growing old is viewed as a challenge. The importance of staying active in old age was stressed by going into general topics like the importance of social support or cultural differences in aging. 'Successful aging' made use of peers, because it has been proven that educators, who are close to the age, beliefs and social status of the target population, are the most effective in communicating a message [29]. Moreover they act as role models having themselves an independent and active life [31].

The senior health educators were put into action in 1995 in Ridderkerk, a community in the urban area of Rotterdam. All 10 454 independently living inhabitants aged between 55 and 79 (23% of the Ridderkerk citizens) were invited, by letter, to participate in 'Successful Aging'. The invitation was signed by the alderman for elderly affairs and public health. In addition, flyers and posters were distributed and a local newspaper gave free publicity. The course was given in an easy to reach centre where many activities for seniors take place. Enrolment was free. The course 'Successful Aging' was general in nature and not aimed at specific risk groups. The dissemination strategy was therefore aimed at the entire population. The Ridderkerk older population was approached with relatively little effort by sending a letter. This paper considers the reactions of the target group to the call to join the course 'Successful Aging'.

### 3. Methods

The senior citizens of Ridderkerk could apply to join the course 'Successful Aging' by returning an answer card that was attached to the letter from the alderman. A comprehensive postal questionnaire was sent prior to course commencement to those who sent back the answer card. An abbreviated version of the questionnaire was sent to a random sample of

those who had not expressed an interest. The questionnaire was shortened to enhance the response rate. The following response groups emerge (see Fig. 1):

1. Interest in Participation (IP) group: respondents to the questionnaire sent to course subscribers.
2. Interest Only (IO) group: respondents to the questionnaire, sent to those who did not subscribe in the first instance but who marked their interest in the course on the answer card.
3. No Expressed Interest (NEI) group: respondents to the questionnaire sent to those who did not return the answer card.

#### 3.1. Measurements

The following socio-demographic variables were included in the questionnaires: gender, age, marital status and level of last occupation as an indication of socio-economic status. Furthermore, respondents were asked about social participation by asking whether they engaged in clubs or hobbies with other people outside home. A question was included by which respondents could rate their health from 1 (very bad) to 10 (very good). Psycho-social well-being was measured using a shortened version of the validated Dutch scale for subjective wellbeing of the elderly (8 items) ( $\alpha = 0.81$ ) [37]. The next variables were only asked from the IP and IO groups. Physical functioning was measured by a 6 item subscale of the MOS short-form general health survey (MOS-20) ( $\alpha = 0.86$ ) [38–40]. A Dutch version of the general self-efficacy scale was included in the questionnaire (16 items,  $\alpha = 0.83$ ) [41,42]. Social support was operationalized using the validated scale perception of everyday support (10 items,  $\alpha = 0.88$ ) [43]. The NEI group was asked for reasons why they refused to participate in the course. To get a complete overview, a random sample was drawn from those of the NEI group who did not return the questionnaire. These 100 non-respondents were approached by telephone to get insight into their reasons for not participating.

#### 3.2. Analysis

Firstly, the response to the questionnaires was studied. Adjustments were made by weighting in the

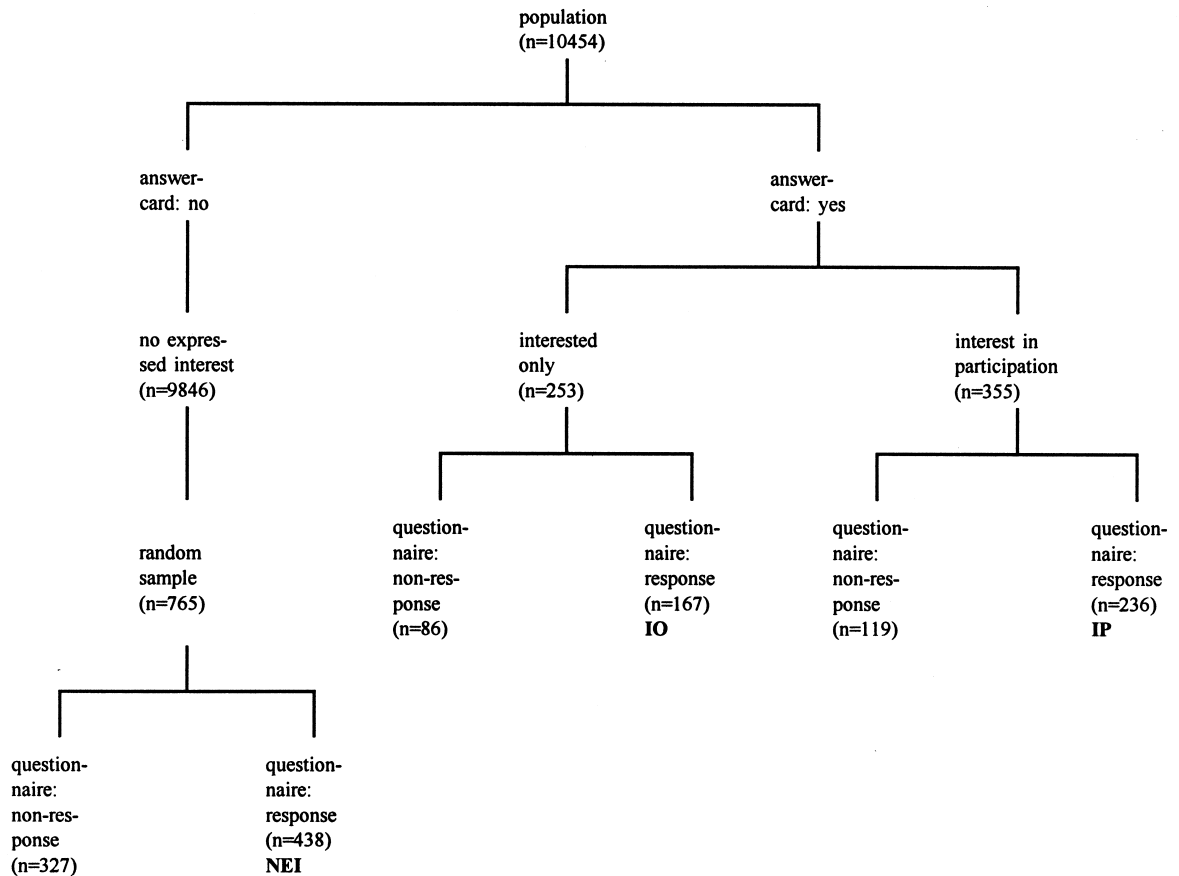


Fig. 1. Study population and response

case of selective response. Next the relationship between expressed interest in the course and background characteristics was established by cross-tabulation and testing statistical significance using the Chi-square test. Scale scores were recoded for interpretation reasons, using the 33th and 66th percentiles as cut-off points. To assess predictors of participation, a backward stepwise logistic regression analysis was used, taking into account the effect of other background characteristics. Variables that on a bivariate level were related significantly to expressed interest in the course were entered in the logistic regression equation, as well as significant interactions. Odds Ratios (ORs) were tested statistically using 95%-confidence intervals (95%-CIs). Rates of interest in the course at population level were estimated in groups with characteristics which in the

logistic regression model predicted significant interest.<sup>1</sup> SPSS/PC + was used in the analysis procedures [45].

<sup>1</sup> Estimates of distribution of background-characteristics at population-level were based on the questionnaire-results among the IP, IO and NEI groups [44]

$$I_x = \sum_{i=1}^3 \left[ R_{x,i} * \frac{P_i}{R_i} \right]$$

where  $I_x$  = estimated number of people with characteristic x in the entire population

$R_{x,i}$  = respondents with characteristic x in group i (IP, IO, NEI)

$R_i$  = respondents in group i

$P_i$  = size of group i in population

$$IR_x = \frac{I_{x,IP} + I_{x,IO}}{I_x}$$

$I_{x,i}$  = estimated number of people with characteristic x in group i

$IR_x$  = rate of expressed interest in population with characteristic x

## 4. Results

### 4.1. Response

The response rate among those who showed interest in the course was 66% in both the expressed interest in participation (IP) group and expressed interest only (IO) group. The sample taken from those who did not express interest (NEI) responded at a rate of 57%. Response to the telephone interview among non-respondents was 54%. All results were adjusted by weighting for gender, age and marital

status of the non-respondents to account for selective response to the questionnaires.

### 4.2. Characteristics of interested respondents

Bivariate comparisons were made between the groups of respondents who expressed their interest in 'Successful Aging' (IP + IO) and those who did not express interest (NEI). The respondents who expressed interest were statistically significant more often female, younger and unmarried, than those who did not react by sending back the answer card (see

Table 1

Characteristics of respondents in groups, expressed interest in participation (IP), expressed interest only (IO) and no expressed interest (NEI)

		IP + IO ( <i>n</i> = 403)	NEI ( <i>n</i> = 438)	IP ( <i>n</i> = 236)	IO ( <i>n</i> = 167)
		%	%	%	%
Gender	male	<sup>a</sup> 40.1	47.7	*35.6	46.3
	female	59.9	52.3	64.4	53.7
Age	55–64	<sup>a</sup> 55.6	46.0	*48.7	65.0
	65–74	36.3	42.2	40.4	30.6
	75–79	8.1	11.8	10.8	4.4
Marital status	married	<sup>a</sup> 69.0	78.1	*62.4	78.1
	unmarried	31.0	21.9	37.6	21.9
Occupational level	low	<sup>a</sup> 32.3	40.1	*37.2	25.8
	moderate	29.8	33.1	32.8	26.0
	high	37.9	26.8	30.0	48.2
Activities/hobbies	yes	<sup>a</sup> 83.6	77.0	82.9	84.5
	no	16.4	23.0	17.1	15.5
Health assessment	low	43.7	42.8	46.7	39.6
	moderate	33.9	28.3	33.2	34.9
	high	22.4	28.9	20.1	25.5
Wellbeing	low	<sup>a</sup> 41.6	29.8	*48.0	33.0
	moderate	30.8	23.9	25.2	38.3
	high	27.6	46.4	26.8	28.7
Physical limitations	many	–	–	*33.5	17.5
	moderate	–	–	32.7	38.6
	none	–	–	33.8	43.9
Self-efficacy	low	–	–	*40.5	34.9
	moderate	–	–	38.8	33.4
	high	–	–	20.6	31.7
Social support	low	–	–	34.5	38.2
	moderate	–	–	34.5	31.8
	high	–	–	31.0	30.0

<sup>a</sup> (IP + IO) – NEI, Chi-square  $P < 0.05$ .

\* IP – IO, Chi-square  $P < 0.05$ .

–, not studied.

Table 1). Moreover, the interested respondents were more often of a higher occupational level and active in clubs or with hobbies. Interested respondents showed a lower psycho-social wellbeing than those who did not express interest, however the subjective assessment of their health on a scale from 1 to 10 did not differ.

Looking closer at the respondents who expressed their interest, again older adults who subscribed for participation (IP) compared to those only showing interest (IO) were more often female, unmarried and had low wellbeing (Table 1). Seniors who were interested in participation (IP) were older and of lower occupational level than the IO group. Moreover, the IP group more often had many physical limitations and experienced low self-efficacy. No association could be proven between interest in participation and social support.

The influence of the other background characteristics on the relationship with interest in the course (IP + IO vs NEI) was controlled for using logistic regression analysis. All variables that were related to expressed interest on a bivariate level, remained in

the logistic regression equation (see Table 2). Interaction was found between gender and age. Compared to female respondents aged 75 and over, the female age groups 55–64 and 65–74 were more often interested in the course. After controlling for the other variables in the logistic regression model, this relationship became even stronger (ORs respectively 2.72 and 3.94). The male age groups did not differ significantly with respect to interest in the course.

#### 4.3. Rates of expressed interest in the population

In total 608 senior inhabitants reacted to the call to join the course ‘Successful Aging’ by returning the answer card (IP + IO) (see Fig. 1). This amounts to a rate of expressed interest of 5.8% of the Ridderkerk population 55 to 79 years of age. Respondents to the questionnaire who did not show interest (NEI) and non-respondents who were interviewed by telephone gave the following reasons for not participating (see Table 3). About one third preferred other sources of information about healthy lifestyles, like the mass-media. Only a minority (13%) preferred to get

Table 2  
Odds Ratios logistic regression model (outcome: expressed interest (IP+IO) vs no expressed interest (NEI))

	Uncorrected ORs	95%-C.I.	Corrected <sup>1</sup> ORs	95%-C.I.
<i>Wellbeing</i>				
High	1.00		1.00	
Moderate	2.17	1.51–3.11	2.20	1.49–3.25
Low	2.35	1.68–3.29	2.45	1.66–3.62
<i>Occupational level</i>				
Low	1.00		1.00	
Moderate	1.12	0.79–1.58	1.23	0.83–1.83
High	1.76	1.25–2.48	1.93	1.31–2.86
<i>Activities/hobbies</i>				
No	1.00		1.00	
Yes	1.52	1.07–2.18	1.55	1.07–2.41
<i>Marital status</i>				
Married	1.00		1.00	
Unmarried	1.60	1.17–2.18	1.47	0.99–2.17
<i>Gender, age</i>				
male, 75–79	1.00		1.00	
male, 65–74	0.99	0.48–2.08	1.12	0.49–2.54
male, 55–64	1.20	0.58–2.47	1.04	0.47–2.33
female, 75–79	1.00		1.00	
female, 65–74	1.52	0.78–2.96	2.72	1.12–6.59
female, 55–64	2.37	1.24–4.55	3.94	1.65–9.40

<sup>1</sup> Controlled for the other background characteristics in the logistic regression model

Table 3  
Reasons for not expressing interest in the course ‘Successful Aging’ (n=482)

Response	Percentage
I’m getting sufficient information about healthy lifestyles from newspapers, television etc.	29%
I’m too busy with other activities	21%
‘Successful Aging’ does not appeal to me	19%
I’d rather obtain information from my G.P.	13%
I’m still in work	13%
My health does not allow me to participate	7%

information from their general practitioner. About 20% was too busy to attend a course and 13% still had a job. The theme ‘Successful Aging’ did not appeal to 19% of the respondents. Poor health was the reason given by 7% for the lack of interest in the course.

Fig. 2 includes rates of expressed interest of subgroups with characteristics that turned out to be

predictors in the logistic regression analysis. The diagram shows that interest was relatively high in the subgroups of older adults with low or moderate wellbeing: rates of interest of 7.9% and 7.4% against 3.6% in the subgroup of those with high wellbeing. Other high interest groups were those of high occupational level, females aged 55–64 and unmarried persons (rates of interest of about 8% against

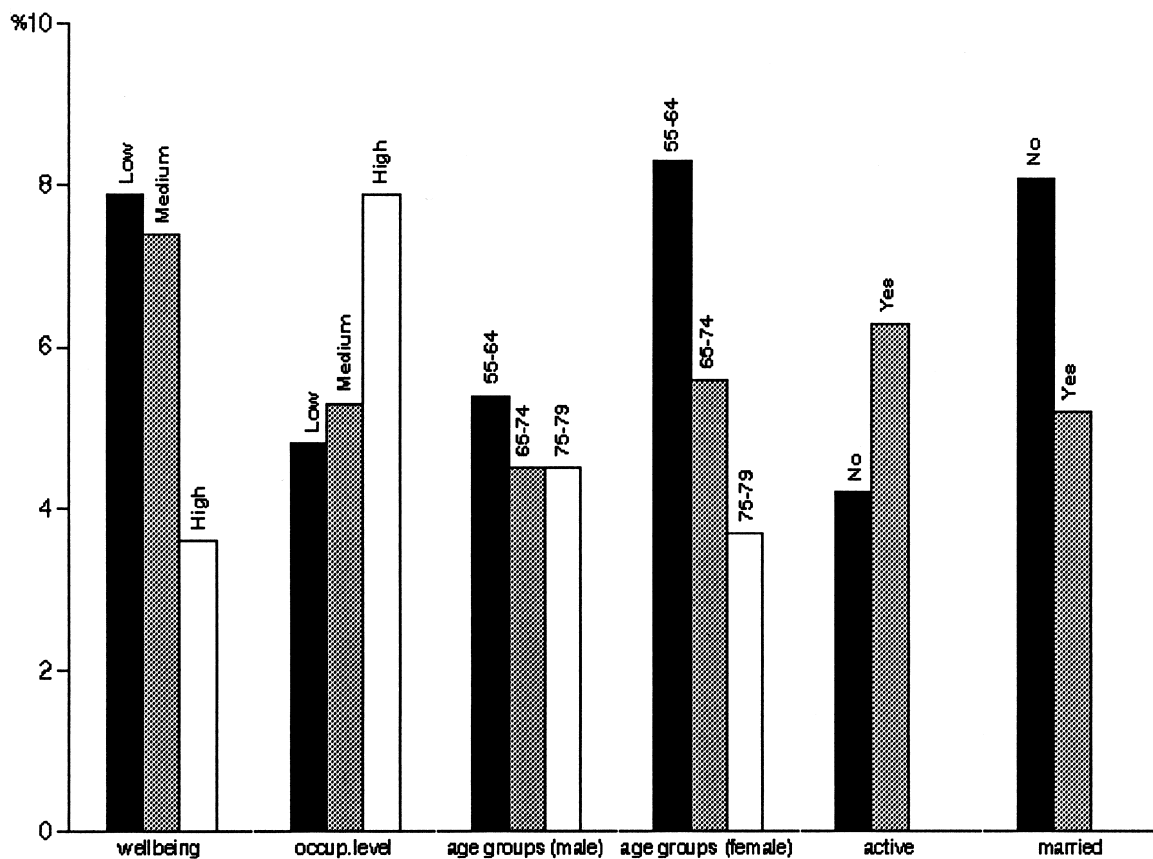


Fig. 2. Estimated rates of expressed interest in the course ‘Successful Aging’ at population level

5.8% in the whole). Low interest groups (rates of expressed interest of about 4%) were, apart from the earlier mentioned older adults with high wellbeing, males aged from 65 to 74 and 75 and over, women 75 to 79, and those who were not active in clubs or with hobbies.

## 5. Discussion

The characteristics of older adults showing interest in the peer led course 'Successful Aging' and their degree of interest were studied. The results, combined with evaluation of the effectiveness of the course, are important for assessing the impact of the program on the population. Moreover insight into the characteristics of the groups reached is relevant for the development of future dissemination strategies. The course 'Successful Aging' was aimed at improvement of the physical, psychological and social wellbeing of older adults. Small groups discussed health related issues like physical exercise and memory problems under the guidance of specially trained senior health educators from their peer group.

The interest in the older Ridderkerk community was highest among subpopulations that are eligible for a health education program. Older adults who showed interest, irrespective of whether or not they subscribed for the course (IP + IO), were younger than those who did not express interest (NEI). From a preventive point of view the course is very relevant to this younger age group when preparing for old age. From research there is evidence that female older adults and those who are unmarried or widowed are risk groups for health problems [17,18]. People expressing an interest in 'Successful Aging' meet this risk group profile, however the interest shown by the unmarried raises the question whether their interest may be caused by the need to meet new friends. The message of the course how to add 'extra life', attracted the interest of the risk group of older adults with lower wellbeing. This result has also been found in a similar program promoting 'taking greater control of your health' [27]. Unfortunately the risk group of people with low socio-economic status demonstrated less interest than those with higher socio-economic status. Moreover nonactive

people seem to face a barrier to join a health education program.

Although the group who expressed interest in the course already showed a need to reflect on their lifestyle, the people who actually subscribed for the course were the most open to joining a course in which their life style was discussed. Within the interested group, the characteristics of those who subscribed for the course (IP) against those who waited to participate (IO) were analyzed. Again, females and unmarried people were more often ready to participate. The 55–64 age group was more frequently only interested, while older age groups more often subscribed for the course. Subscription was also higher among those with lower wellbeing and many physical problems. The theory that groups of higher socio-economic status are more willing to adopt innovations, is not entirely applicable to the selective population showing interest in the course [29]. The group with the lowest socio-economic status was more often ready to participate and subscribed for the course, whereas those from the higher socio-economic status group only showed interest. Moreover, it was expected that individuals prepared for behavioural change and probably ready to engage in the course, judged their self-efficacy to be higher than the people not yet thinking of changing their lifestyle [33,34]. Our findings are in contrast with this hypothesis. Senior citizens, who subscribed for the course, experienced lower self-efficacy. An explanation may be that the higher self-efficacy group, who only showed interest, is less in need of the course because they adapt relatively more easily to a healthy lifestyle and lead an independent life. The readiness to participate of those with lower socio-economic status, lower wellbeing, many physical problems and lower self-efficacy, indicates that they had the most prominent need of a new perspective on their lives.

Every inhabitant of Ridderkerk aged 55–79 years had the chance to enrol for the course 'Successful Aging' in the dissemination strategy. Each one received an invitation at home from the alderman for elderly affairs and public health. Six out of a hundred people in the age category reacted to this first call to participate. Most programs confine their strategy to calls in newspapers and flyers. A campaign in which 10,000 postal invitations are distrib-



uted is very costly. The question can be raised whether this effort is reflected in the rates of expressed interest. The information available through the mass media about healthy lifestyles was a reason given for not reacting on the invitation to join the course. Other valid reasons for lack of interest were that individuals were too busy with other activities or a daytime job, or they had health problems. Most people accepted the peer educator as a source of information. Only 13% preferred their general practitioner.

Although 'Successful Aging' was aimed at the entire community of older adults of 55 to 79 years of age, the impact in this community will be limited on account of the rate of interest. Nevertheless the course caught the attention of people from several risk groups who were prepared to exchange experiences and to learn from each other about growing old successfully. Provided that 'Successful Aging' is effective, the course may have brought benefit to the attending individuals. The course meets the problem of the prevention paradox, which states that a program that realizes significant impact for individuals will have limited effect for the population as a whole and vice versa [46]. A health education campaign that pursues considerable behaviour change in every single member of a population will be too extensive and costly.

The direct mail strategy used has taught us which groups of older adults are inclined to participate. In future the program will continue for groups that already showed some interest and special attention will be paid to groups that showed lower levels of uptake, like the socio-economically deprived and inactive. So far the peer educators have been involved in program planning, instead of working with the target population at a local level. In future plans, representatives of the subgroups, older adults themselves and professional advocates, will be consulted to tailor the intervention and enhance interest rates. Platforms or linking systems have to be realized, in which program planners and intermediates come together [47]. The consequence of this community approach is that the course 'Successful Aging' will be subject to change. The course may even not be the most suitable intervention strategy to interest hard to reach groups, and combinations with other methods such as home visits or environmental

change may be necessary to achieve a satisfactory impact.

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