Pulling out all the stops: What motivates 65+ year-olds with depressive symptoms to participate in an outreaching preference-led intervention programme?

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ABSTRACT

Objectives: Many older adults have significant depressive symptoms but few people access care for these. This study explores which personal, clinical and need factors facilitate or hinder acceptance of a new outreaching preference-led intervention programme.

Methods: From a sample of 9661 community-dwelling 65C year olds, 244 persons with depressive symptoms according to the Patient Health Questionnaire-9 were included. Data on programme effectiveness in terms of care utilisation were collected. Associations between programme acceptance and personal, clinical and need factors were studied using quantitative (logistic regression analyses) and qualitative methods (semi-structured interviews with 26 subjects, who accepted (n=20) or declined (n=6) the programme).

Results: Fifty-six per cent (n=137) took part in the interventions. Quantitative logistic regression analyses showed that participants were more often female, suffered from more severe depressive symptoms and perceived more loneliness. Qualitative analyses revealed that people accepting the intervention programme felt that medical terms as having a depressed mood were applicable to their situation, more often perceived their symptoms as hindering, felt lonely and more often perceived a need for care. They were more often advised by their general practitioner to participate than individuals who refused the interventions. Many participating individuals did not see a match between the intervention programme and their needs, especially with respect to meeting new people.

Conclusion: Many older persons with depressive symptoms did not feel the need to take part in the programme. Providing support in alleviating loneliness and further adaptation to older adults’ illness representations and perceptions when discussing depressive symptoms might enhance care utilisation.
INTRODUCTION

Depressive symptoms are very common in later life with an average prevalence of 13.5% (Beekman, Copeland, & Prince, 1999) and can have a significant impact on wellbeing (Beekman et al., 2002) and mortality (Penninx et al., 1999). Subclinical depressive symptoms (i.e. all depressive syndromes deemed clinically significant but not fulfilling criteria for a major depressive disorder) are an important risk factor for developing major depressive disorder (Meeks, Vahia, Lavretskey, Kulkarni, &Jeste, 2011), which is the second leading cause of disability worldwide (Vos et al., 2012). Still, most older people with depressive symptoms remain untreated (Stek, Gussekloo, Beekman, van Tilburg, & Westendorp, 2004) despite the availability and efficacy of treatments (Cuijpers, Smit, & van Straten, 2007).

For several reasons older adults may choose not to present their distress to health care professionals, including misattributing depressive symptoms to normal ageing or physical ill health (‘justifiable depression’; Burroughs et al., 2006; Chew-Graham et al., 2012) preferring to handle problems on their own (Mackenzie, Pagura, & Sareen, 2010) and aversion, previous negative experiences with or low expectations of available treatments (Chew-Graham et al., 2012). General practitioners also experience barriers in caring for older persons with depressive symptoms because of the same attribution process to normal ageing, lack of (confidence in their) management skills and being wary of opening ‘Pandora’s box’ in time-limited consultations (Burroughs et al., 2006).

Various initiatives have been undertaken to overcome these barriers, for instance by routinely screening the older adult population for depressive symptoms, or those at risk. Several integrated intervention studies have applied this outreaching approach by recruiting older adults with depressive symptoms who have not (yet) asked for help and offered them stepped care interventions (Ciechanowski et al., 2004; Katon et al., 2004; Patel et al., 2010; van’t Veer-Tazelaar et al., 2009; van der Weele, de Waal et al., 2012) or provided them with the choice of two interventions in order to attune to their preferences (Bruce et al., 2004; Davidson et al., 2010; Katon et al., 2004; Patel et al., 2010; Unutzer et al., 2002). Although most of them have shown to be effective in preventing or treating major depressive disorders (Bruce et al., 2004; Ciechanowski et al., 2004; Katon et al., 2004; Unutzer et al., 2002; van’t Veer-Tazelaar et al., 2009) their reach remained limited with figures between 2.8% and 8.0% (Bruce et al., 2004; Ciechanowski et al., 2004; Katon et al., 2004; Unutzer et al., 2002; van’t Veer-Tazelaar et al., 2009; van der Weele, de Waal et al., 2012).

Also, in the United Kingdom the quality and outcomes framework (QOF) has provided general practitioners with financial incentives to use validated measures of depressive symptoms, for example the Patient Health Questionnaire-9 (PHQ-9; Spitzer, Kroenke, & Williams, 1999). Although intended to improve case finding, severity monitoring and targeting of care in concordance with guidelines, many general practitioners consider its use a threat to patient care (Dowrick et al., 2009). Recently, the Canadian Task Force on Preventative Health Care has even...
recommended against routine screening for depression in its updated guidelines due to limited
evidence about the benefits of screening (Bland & Streiner, 2013). The views of older persons with
depressive symptoms, however, have not yet been sought in this discussion. Yet, more insight into
their perspectives can be of great value in establishing a better match between offered
intervention options and preferences of those who can benefit from them.

The limited qualitative research that has been done on this topic shows that eligible
candidates do not perceive their symptoms as burdensome, do not express a need for care, or
have negative thoughts about potential interventions (van der Weele, de Jong et al., 2012; Wittkampf et al., 2008). These findings, however, have been limited to the experiences of younger adults or the oldest old. Also, it is unknown whether care utilisation can be improved by combining
a stepped care approach with multiple intervention options in every step, aimed at meeting older persons’ preferences. Even though associations between the provision of patient-preferred care and clinical outcome are diverging (Lin et al., 2005; Raue, Schulberg, Heo, Klimstra, & Bruce, 2009), preference-led interventions could improve care initiation and adherence (Raue et al., 2009).

We conducted an implementation trial offering an outreaching stepped care intervention
programme with multiple evidence-based interventions for older people with depressive
symptoms. Alongside this trial, we used quantitative methods to explore which personal and
clinical characteristics facilitated or hindered the acceptance of the intervention programme. Additionally, we used qualitative methods to gain further insight into older persons’ motivation to accept or decline help.

METHODS
Design
This cross-sectional study was conducted as part of the ‘Lust for Life’ trial, aimed at reducing
depressive symptoms in older persons by implementing a stepped care intervention programme.
A multi-method approach was used to provide a more comprehensive view on decision-making
about participation in the interventions than either quantitative or qualitative methods can do on
their own. Quantitative methods are appropriate to relate older persons’ demographic and clinical
characteristics to eventual acceptance of the intervention offer. Qualitative methods are suitable
to gain an understanding of older adults’ illness perceptions and perceived needs. In the present
study, both methods were integrated to verify and corroborate findings from different approaches
about this single phenomenon (triangulation) and to elaborate or clarify the results from one
method by the other (complementarity). The VU University Medical Centre Ethical Review Board
approved the study (No. 2010/084).
Sample
Eighteen general practices with 45 general practitioners and a home care facility in the Netherlands participated in the study and were sampled by convenience. All enlisted persons of 65 years and older (N=9661) were informed by their general practitioner or home care organisation about the intervention programme and invited to fill out a screener for depressive symptoms, the self-report PHQ-9 (Spitzer et al., 1999; Figure 1). In the Netherlands, approximately 98% of the general population is enlisted to a general practice (http://www.nza.nl). The questionnaire was returned by 5492 persons (56.8%), of whom 758 (13.8%) scored above the predefined cut-off score of 6 (Lamers et al., 2008). Four hundred and ninety-five individuals were unwilling (n=465) or unable (n=30) to participate. Since the ‘Lust for Life’ trial is an implementation trial and aimed to suit procedures to normal practice as much as possible, we only excluded individuals during the baseline interview with insufficient mastery of the Dutch language and those with severe cognitive disability (defined as a score of 21 or lower on the Telephone Interview Cognitive Status Modified (TICS-m; Welsh, Breitner, & Magruder-Habib, 1993). Since we used staged implementation, the TICS-M was additionally conducted when research staff questioned the cognitive abilities of respondents along the trial. This led to the exclusion of one respondent at one year after baseline, before the intervention programme was offered to this person.

Of the 465 persons unwilling to participate into the study, 321 individuals provided data on reasons for refusal, including perceiving no need for care (27.4%), simply not being interested (23.7%) or perceiving no depressive symptoms (21.5%). Since acceptance of the intervention programme was defined as attending at least one session of the interventions offered, 16 additional subjects were excluded who were willing to participate but reached remission after inclusion during the watchful waiting period of three months. They were, therefore, never offered to take part in the intervention programme. Three other individuals were excluded during the watchful waiting period due to insufficient cognitive abilities or who deceased. This led to a final sample of 244 persons for the current study who met inclusion criteria and were (initially) willing to participate in the intervention programme and the accompanying study.
Figure 1: Screening results

Screening questionnaires sent
N = 9,661

Not returned
N = 4,169 (43.2%)

PHQ <6
Not answered
N = 3,903 (71.1%)
Not answered
N = 778 (14.1%)
Incomplete
N = 53 (1.0%)

Returned
N = 5,492

PHQ ≥ 6
N = 758 (13.8%)

Willing to participate
N = 263 (34.7%)

Watchful waiting

Invited for intake session
N = 244 (92.8%)

First session with nurse
N = 166 (68.0%)

Participation in intervention programme
N = 137 (82.5%)

Unwilling/unable* to participate
N = 495 (65.3%)

Unable** to participate
N = 19 (7.2%)

Unwilling to participate
N = 78 (32.0%)

Declined intervention programme
N = 29 (17.5%)

* 30 subjects were excluded for reasons of insufficient mastery of the Dutch language (n=9), deceased/could not be reached (n=18) or moving outside the research area (n=3).
** 16 subjects reached remission, 1 subject was excluded due to insufficient cognitive abilities, and 2 were deceased.
Intervention programme

The intervention programme consisted of evidence-based interventions with much variety in content (e.g. individually delivered versus in a group, exercise versus cognitive therapy based interventions) in an attempt to suit individual treatment needs. After three months of watchful waiting, participants were invited for an intake session with a mental health/home care nurse when depressive symptoms persisted (PHQ 6; Figure 2). The stepped care programme consisted of evidence-based interventions administered by the nurse in three steps, if necessary: Step 1: choice of (1a) a guided self-help course based on Lewinsohn’s ‘Coping with Depression Course’ (Cuijpers, Munoz, Clarke, & Lewinsohn, 2009) or (1b) an exercise programme (Bridle, Spanjers, Patel, Atherton, & Lamb, 2012); Step 2: choice of (2a) individual life review (Bohlmeijer, Smit, & Cuijpers, 2003) or (2b) problem solving treatment (PST; Mynors-Wallis, Davies, Gray, Barbour, & Gath, 1997); and Step 3: referral to a general practitioner to discuss further treatment options. Each step lasted for approximately three months with regular sessions taking place twice a week (exercise programme) or twice a month (all other interventions). During the intake session, individuals were advised to follow interventions according to the stepped care principle, but in order to meet individual preferences participants could also choose to start immediately with a Step 2 intervention. Except for the exercise programme, interventions were administered at the participant’s home or at the general practice. Older persons who declined the intervention offer but perceived a specific need for help (e.g. for a psychologist or day care) were advised to discuss their needs with their general practitioner.
Figure 2: Treatment algorithm

Note: MH/HC nurse=mental health/home care nurse; GP=general practitioner; PHQ-9=Patient Health Questionnaire-9, PHQ ≥ 6= indicative of depressive symptoms.

Data collection
Quantitative data collection
After screening assessment and obtainment of written informed consent, subjects were invited to complete a baseline telephone interview and a written questionnaire.
Qualitative data collection

To gain a good insight into the subjects’ decision-making process, semi-structured interviews were performed with both subjects who accepted the interventions and with those who declined. The intervention programme was implemented in four waves with three-month intervals. A convenience sample of all wave 3 subjects eligible for intake (n=38) were invited by telephone to take part in the interviews. Twenty-six subjects were willing to take part in the interviews: six subjects refused participation, five could not be interviewed within the time frame of this study and one person could not be reached. Of these 26 subjects, 6 refused the intervention programme (after taking part in the intake session) and 20 accepted, of which 5 participants quitted untimely. Interviews were conducted at the subjects’ homes by two researchers (MH or IvB), who were significantly younger than the participants, did not know the respondents prior to the interview and did not deliver the interventions. Participants were informed that the interview had no impact on their treatment. Interviews were conducted within five weeks after the intake session took place, and lasted between 31 and 92 minutes.

Measurements

Quantitative measurements

Unless otherwise stated, all measures were gathered by means of written validated questionnaires that respondents filled in at home. Social support was addressed by one item assessing the size of the subject’s social network. Various clinical measures were collected: diagnoses of a major depressive disorder and dysthymia as well as the age of onset and number of previous episodes were assessed by the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998), a short structured diagnostic interview conducted by telephone by trained research staff. For symptom severity, scores on the PHQ9 (Spitzer et al., 1999) during screening were reported. The Loneliness Scale (De Jong-Gierveld & Kamphuis, 1985) measured the amount of loneliness a subject experiences by citing 11 statements such as ‘I miss having people around me’, that can be rated on a 3-point rating scale. Cut-off scores of 9 and 11, respectively, indicated severe and extreme feelings of loneliness (van Tilburg & de Jong Gierveld, 1999). For somatic health, the number of self-reported somatic diseases in the past 12 months was calculated. Physical functioning was assessed by the Modified Katz Activities of Daily Living (Katz ADL; Weinberger et al., 1992). Self-rated health was measured by the visual-analogue scale of the EuroQol (EQ-5D; EuroQol Group, 1990).

Qualitative measurements

For the qualitative interviews, a topic guide was used that was derived from a previous qualitative study on responses to an unsolicited intervention offer to persons aged 75 (van der Weele, de Jong et al., 2012). This topic guide was adjusted to the intervention programme of the present study. Interviews started with an open question about the most important reason(s) for accepting
or declining the intervention programme. Consequently, in a semi-structured manner we inquired about reasons for initially returning the screening questionnaire, perceived emotional symptoms, personal coping style, self-perceived need for care, influences of others on the decision made and other reasons for declining or accepting the intervention offer.

Data analysis

Quantitative data analysis
Associations between participation in the intervention programme and background and clinical characteristics were checked for linearity. Determinants with a non-linear relationship (PHQ scores) and determinants with skewed distributions (size of social network, Katz ADL) were divided into quartiles. Simple and multiple logistic regression techniques were used to determine which of the previously mentioned characteristics predicted participation, adjusting for age, sex and educational level. SPSS version 20 was used for all analyses.

Qualitative data analysis
Interviews were digitally recorded and transcribed verbatim. Transcripts were read and re-read. Thematic analysis was performed in Atlas.ti 5.2 software both deductively (using predefined codes deriving from literature) and inductively (using open coding). A coding tree was constructed by means of constant comparison within transcripts and between transcriptions. It consisted of key themes such as ‘perception of current emotional distress’ and different levels of codes (e.g. ‘type of emotional distress’), each consisting of several subcodes (e.g. ‘moodrelated problems’ or ‘feelings of loneliness’). Interviews were independently coded by two researchers (MH and IvB), of which one researcher was exclusively involved in the qualitative part of the study (MH). Coding was discussed until consensus was achieved. Data saturation was reached after the 23rd interview since no new themes emerged from the interviews.

To minimise subject burden in validation procedures, subjects checked and if applicable added to an oral summary of the discussed themes provided by the interviewer at the end of the interview. Peer debriefing took place by regular team meetings in which (sub)codes, original data and results were presented and discussed.

RESULTS

Sample
Quantitative results are based on data from all included subjects (n=244); qualitative results on semi-structured interviews with a subsample (n=26). Their demographic and clinical characteristics are shown in Table 1.
Table 1: Demographic and clinical characteristics of included (left) and interviewed (right) persons (by means of semi-structured interviews).

<table>
<thead>
<tr>
<th></th>
<th>Included subjects</th>
<th>Interviewed subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age in years</td>
<td>75.2 ± 6.7</td>
<td>75.4 ± 7.5</td>
</tr>
<tr>
<td>Sex, female</td>
<td>71.3 (174)</td>
<td>76.9 (20)</td>
</tr>
<tr>
<td>Region, urban</td>
<td>78.3 (191)</td>
<td>92.3 (24)</td>
</tr>
<tr>
<td>Household composition, alone</td>
<td>64.3 (157)</td>
<td>76.9 (20)</td>
</tr>
<tr>
<td>Born outside the Netherlands</td>
<td>11.5 (28)</td>
<td>15.4 (4)</td>
</tr>
</tbody>
</table>

| Clinical characteristics |                   |                      |
| PHQ-score (depression severity) |       |                      |
| 6 – 7                    | 17.6 (43)         | 19.2 (5)             |
| 8 – 10                   | 29.1 (71)         | 26.9 (7)             |
| 11 – 14                  | 30.7 (75)         | 34.6 (9)             |
| 15 – 27                  | 22.5 (55)         | 19.2 (5)             |
| Major depression (MDD)   |                   |                      |
| No diagnosis             | 57.0 (139)        | 53.8 (14)            |
| Current MDD              | 20.9 (51)         | 7.7 (2)              |
| Past MDD                 | 22.1 (54)         | 38.5 (10)            |
| Loneliness (range 0-11)  | 7.4 ± 3.5         | 8.0 ± 3.3            |
| Participated in the intervention programme | 56.1 (137) | 76.9 (20) |

**Care utilisation**

Of the 244 older people with depressive symptoms who were included into the study, 166 persons attended the intake session (68%). Seventy-eight individuals changed their mind and declined the intake session. Eventually, 137 older adults (56%) took part in the intervention programme.

**Acceptance of the intervention programme - quantitative findings**

Various logistic regression analyses were performed to compare subjects who accepted (n=137) with those who declined the intervention offer (n=107) on several personal and clinical factors.

Persons who participated in the intervention programme were more often female (adjusted OR=2.28, 95% CI=1.284.08; see Table 2). People with a limited social network (25 social contacts) were more inclined to accept the interventions than individuals with a larger social network (610 social contacts; adjusted OR=0.45, 85% CI=0.230.90) or socially isolated people.
(01 social contact; adjusted OR=0.28, 95% CI=0.100.77).

Older persons with moderate-to-severe depression severity (PHQ score 11) were more inclined to take part in the interventions (adjusted OR=4.36, 95% CI=1.8810.12) compared to people with only very mild and mild symptoms (Table 3). Furthermore, the data showed that loneliness was highly prevalent in our sample, with 47% of the entire sample and 52% of all persons who accepted the interventions reporting severe or extreme feelings of loneliness. Older lonely adults were more inclined to accept the interventions (Table 3; adjusted OR=1.08, 95% CI=1.001.17).

**Table 2: Differences in background characteristics between subjects who participated versus declined participation in the intervention programme (N=244); results from logistic regression analyses.**

<table>
<thead>
<tr>
<th>Mean ± SD or % (no)</th>
<th>Participated† N= 137</th>
<th>Declined participation N= 107</th>
<th>Unadjusted</th>
<th>Adjusted‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender, female</td>
<td>78.1 (107)</td>
<td>62.6 (67)</td>
<td>2.13**</td>
<td>2.28**</td>
</tr>
<tr>
<td></td>
<td>1.21-3.74</td>
<td>1.28-4.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>75.0 ± 6.6</td>
<td>75.5 ± 6.9</td>
<td>0.99</td>
<td>1.03</td>
</tr>
<tr>
<td></td>
<td>0.95-1.03</td>
<td>0.92-1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education in years</td>
<td>10.1 ± 2.7</td>
<td>10.0 ± 2.6</td>
<td>1.02</td>
<td>1.03</td>
</tr>
<tr>
<td></td>
<td>0.92-1.12</td>
<td>0.92-1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region, urban</td>
<td>81.0 (111)</td>
<td>74.8 (80)</td>
<td>1.44</td>
<td>1.46</td>
</tr>
<tr>
<td></td>
<td>0.78-2.65</td>
<td>0.77-2.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status§</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Married/cohabiting</td>
<td>31.1 (42)</td>
<td>36.3 (37)</td>
<td>Ref</td>
<td></td>
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<tr>
<td>Widowed/ divorced</td>
<td>63.7 (86)</td>
<td>52.0 (53)</td>
<td>1.43</td>
<td>1.28</td>
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<td></td>
<td>0.82-2.50</td>
<td>0.69-2.35</td>
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<tr>
<td>Never married</td>
<td>5.2 (7)</td>
<td>11.8 (12)</td>
<td>0.51</td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td>0.18-1.44</td>
<td>0.13-1.10</td>
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<td></td>
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<tr>
<td>Born outside the</td>
<td>11.2 (15)</td>
<td>12.7 (13)</td>
<td>0.86</td>
<td>0.75</td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household composition, alone§</td>
<td>70.1 (94)</td>
<td>61.8 (63)</td>
<td>1.46</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td>0.84-2.51</td>
<td>0.73-2.32</td>
<td></td>
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</tr>
<tr>
<td>Income (net per month, in €1000)</td>
<td>1.5 ± 0.8</td>
<td>1.4 ± 0.7</td>
<td>1.24</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td>0.83-1.84</td>
<td>0.89-2.29</td>
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<tr>
<td>Size social network§</td>
<td></td>
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<tr>
<td>0-1</td>
<td>6.1 (8)</td>
<td>13.9 (14)</td>
<td>0.33*</td>
<td>0.28*</td>
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<td></td>
<td>0.13-0.85</td>
<td>0.10-0.77</td>
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<tr>
<td>2-5</td>
<td>48.1 (63)</td>
<td>35.6 (36)</td>
<td>Ref</td>
<td>Ref</td>
</tr>
<tr>
<td>6-10</td>
<td>22.1 (29)</td>
<td>29.7 (30)</td>
<td>0.55</td>
<td>0.45*</td>
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<tr>
<td></td>
<td>0.29-1.06</td>
<td>0.23-0.90</td>
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<tr>
<td>≥ 11</td>
<td>23.7 (31)</td>
<td>20.8 (21)</td>
<td>0.84</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>0.42-1.68</td>
<td>0.40-1.69</td>
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</tbody>
</table>

* p<0.05, ** p<0.01
† Participation is defined attending at least one session of a step 1 or step 2 intervention.
‡ Adjusted for sex, age, and educational level.
§ Due to missing values, numbers do not add up to 100%.
Table 3: Differences in clinical characteristics between subjects who participated versus declined participation in the intervention programme (N=244); results from logistic regression analyses.

<table>
<thead>
<tr>
<th></th>
<th>Mean ± SD or % (no)</th>
<th>Unadjusted</th>
<th>Adjusted‡</th>
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<tbody>
<tr>
<td></td>
<td>Participated† N=137</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Declined N=107</td>
<td></td>
<td></td>
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<tr>
<td>PHQ-score (symptom severity)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6 - 7</td>
<td>11.7 (16)</td>
<td>1.84</td>
<td>0.92-4.72</td>
</tr>
<tr>
<td>8 – 10</td>
<td>27.0 (37)</td>
<td>3.38**</td>
<td>1.88-100.12</td>
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<tr>
<td>11 – 14</td>
<td>36.5 (50)</td>
<td>4.36**</td>
<td></td>
</tr>
<tr>
<td>15 – 27</td>
<td>24.8 (34)</td>
<td>2.73*</td>
<td>1.33-7.80</td>
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<tr>
<td>Major depression (MDD)</td>
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</tr>
<tr>
<td>No diagnosis</td>
<td>53.3 (73)</td>
<td>1.01</td>
<td>1.00-1.04</td>
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<tr>
<td>Current MDD</td>
<td>20.4 (28)</td>
<td>1.09</td>
<td>0.94-1.04</td>
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<tr>
<td>Past MDD</td>
<td>26.3 (36)</td>
<td>1.01</td>
<td>1.00-1.02</td>
</tr>
<tr>
<td>Age of onset depression</td>
<td>48.3 ± 21.4</td>
<td>1.01</td>
<td>1.00-1.02</td>
</tr>
<tr>
<td>No. of depressive episodes</td>
<td>10.3 ± 18.2</td>
<td>1.00</td>
<td>1.00-1.02</td>
</tr>
<tr>
<td>Dysthymia§</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>No diagnosis</td>
<td>83.9 (115)</td>
<td>1.01</td>
<td>1.00-1.04</td>
</tr>
<tr>
<td>Current dysthymia</td>
<td>9.5 (13)</td>
<td>0.99</td>
<td>0.88-1.16</td>
</tr>
<tr>
<td>Past dysthymia</td>
<td>6.6 (9)</td>
<td>0.96</td>
<td>0.70-1.04</td>
</tr>
<tr>
<td>Age of onset dysthymia§</td>
<td>49.8 ± 21.5</td>
<td>1.01</td>
<td>1.00-1.04</td>
</tr>
<tr>
<td>Number of somatic diseases</td>
<td>3.2 ± 1.9</td>
<td>1.02</td>
<td>0.89-1.16</td>
</tr>
<tr>
<td>Self-rated health</td>
<td>62.1 ± 16.4</td>
<td>1.01</td>
<td>0.99-1.02</td>
</tr>
<tr>
<td>(EQ-5D-VAS; range 0-100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Katz ADL§</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>34.6 (44)</td>
<td>0.63</td>
<td>0.24-1.25</td>
</tr>
<tr>
<td>1</td>
<td>15.0 (19)</td>
<td>0.63</td>
<td>0.24-1.25</td>
</tr>
<tr>
<td>2-3</td>
<td>26.0 (33)</td>
<td>0.96</td>
<td>0.42-2.16</td>
</tr>
<tr>
<td>4-11</td>
<td>24.4 (31)</td>
<td>0.60</td>
<td>0.25-1.44</td>
</tr>
<tr>
<td>Loneliness (range 0-11)</td>
<td>7.8 ± 3.3</td>
<td>1.08*</td>
<td>1.00-1.17</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.01
† Participation is defined attending at least one session of a step 1 or step 2 intervention.
‡ Adjusted for sex, age, and educational level.
§ Due to missing values, numbers do not add up to 100%.
¶ Rounded, smaller than 1.
Acceptance of the intervention programme - qualitative findings

Three major themes emerged from the semi-structured interviews that elaborated or added to the quantitative findings: (1) self-perceived emotional distress; (2) self-perceived need for care; and (3) the influence of others on the decision to accept or decline the interventions.

Self-perceived emotional distress

Mood-related emotional distress

Our qualitative data provided a broader perspective on the relationship between participation and symptom severity found in the quantitative analyses. Even though all interviewed individuals scored above the cut-off score of 6 on the PHQ-9 (indicative of depressive symptoms), the way subjects described their emotional problems if present in their opinion was more widespread. Frequently used terms were having a gloomy mood, not feeling like doing anything, being indifferent or feeling lonely. Approximately half of all subjects did not feel that (medical) terms such as having a depressed mood or being depressed were applicable to their situation, especially those who declined the intervention offer. Almost all interviewed individuals identified experiences of loss due to ageing as an (understandable) cause of their emotional problems, such as losing a partner, a diminished social network, decreased feelings of worth and physical ill health. For example, as stated by an 83-year-old female participant (Resp #9): ‘No, I had never felt downcast, never. It was certainly caused by that cardiac-infarction, that you can’t really do anything else. And that is just very unpleasant.’

The qualitative data further showed that not merely the current severity of emotional problems was associated with acceptance of the interventions, but that the self-perceived hindrance of symptoms was also of importance. Mostly persons who accepted the intervention programme perceived their symptoms as burdensome, compared to a minority of those who declined. For instance, a 76-year-old female participant (PHQ score 8, Resp #21) explained: ‘Well, I think it is miserable. And difficult to cope with. You have to keep lifting yourself up, otherwise you can’t carry on.’ On the other hand, an 81-year-old female (with PHQ score 14, Resp #12) who declined the intervention offer said: ‘Sure I have my ups and downs. But that is part of life, isn’t it? You don’t have to be upset by that.’

Emotional distress related to loneliness

In keeping with the quantitative findings, many subjects reported feelings of loneliness, mostly persons who accepted the intervention offer. Some mentioned a lack of social contact in general (social loneliness), such as a 79-year-old female participant (Resp #7): ‘You just have few social contacts. I used to have nice friends, but unfortunately I have lost them. I always have to do everything by myself.’ Others felt the loss of someone to share very personal things with (emotional loneliness), for instance, a 70-year-old male participant (Resp #16): ‘If I have a problem, I can’t talk to anyone about it. Not to a person I know intimately. That also makes it
difficult. I mean, in the old days when I had a headache, [...] my wife told me to do this or to do that, or take it easy. But that is over.’ Also, in this respect several subjects mentioned a lack of personal meaning in life, since they did not have to care for others any more, as stated by an 87-year-old female participant (Resp #17): ‘I have lost my purpose in life. And I am not the only one who feels like that... [...] Being useless, you don’t have to take care of anyone.’

Self-perceived need for care

Most persons accepting the intervention programme perceived a need for care for their emotional problems, in contrast to a minority of those who declined. Needs included learning new skills to manage emotional problems, talking to someone about daily hassles or past experiences or meeting other (like-minded) people. A 73-yearold female participant explained (Resp #13): ‘I would like to see more people. [...] And that’s why I thought, well let’s do this. [...] I don’t need someone to talk to constantly. But going somewhere and talking about it afterwards. I miss that very much.’

Self-perceived match between needs for care and the intervention programme

Many older persons with a need for care did not see a match between their needs and the interventions offered, especially among those who declined the intervention offer. For persons who declined the interventions, this mostly required specific needs that could not be met by the intervention programme, such as a need for a consult with a psychologist or an informative session on ageing. One person mentioned that she did not feel comfortable with the nurse, and therefore declined participation.

Persons who accepted the interventions mainly expressed the need to meet other (like-minded) older people. This need could only (directly) be met by taking part in our exercise programme, which did not always suit individuals’ preferences or physical abilities. For example, this 74-year-old male participant stated (Resp #15): ‘Well, I was kind of hoping to meet people who are likeminded. In a conversation group, to hear about each others’ experiences and to get support in those kind of things.’

Influence of others

The majority of all subjects discussed their possible participation in the intervention programme with relatives or friends. However, participants stated this hardly ever influenced their decision since they had already made up their minds. Several participants mentioned that their general practitioner or general practice nurse had advised them to take part in the interventions, or assumed that he or she had signed them up for this programme since the invitation letter was sent on behalf of their general practitioner. This motivated all of them to accept the intervention programme, as a 70-year-old male participant explained (Resp #16): ‘He [GP] knew [names the ‘Lust for life’-nurse]. [...] I assume that the two of them have discussed this. That all helps to say:
okay, well let’s try it.’ Previous experience with health care providers did not emerge as a significant motivator for accepting or declining the intervention programme.

**DISCUSSION**

We pulled out all the stops to improve access to care for older adults with depressive symptoms by applying an outreaching approach and offering a preference-led intervention programme that could be administered at home. Yet, many persons did not feel the need to accept our offer. Although prevalence rates of depressive symptoms in older adults are estimated at 13.5% (Beekman et al., 1999), in line with several previous large intervention studies (5000 subjects with depressive symptoms; Bruce et al., 2004; Katon et al., 2004; van der Weele, de Waal et al., 2012; van’t Veer-Tazelaar et al., 2009), we included nearly 3% of all screened subjects into this study. Almost half of them, 137 subjects, actually enrolled in the intervention programme.

This paper aimed at gaining more insight into facilitating and hindering factors to acceptance of care and providing answers on how care acceptance could be improved. Important factors that were of influence on older persons’ decisions to accept the interventions were female gender, perceiving more severe and hindering depressive symptoms and loneliness and perceiving a need for help for emotional problems. Furthermore, for many persons, the interventions offered were not congruent with their needs, especially concerning needs to meet other (like-minded) people.

Our finding that women were more willing to participate in the interventions can possibly be explained by a higher propensity to consider symptoms of distress as a (mental) problem which intensifies care seeking behaviour, compared to men (Kessler, Brown, & Broman, 1981).

Earlier findings from quantitative studies proved consistently that older people with a more severe clinical status have a higher probability to receive care (Parslow & Jorm, 2000). Yet, these studies mostly used pooled samples of subjects with and without depressive symptoms and based severity on a formal diagnosis instead of symptom severity. A more complex picture emerged from our results. On the one hand, we found a non-linear relationship between symptom severity and acceptance of the interventions: subjects with moderate or severe depressive symptoms (PHQ score 11) were more inclined to take part in the interventions. On the other hand, results from semi-structured interviews showed that not merely ‘objectified’ symptom severity scores but also the self-perceived hindrance of emotional problems seemed to influence participation. Indeed, other studies reported that a lack of self-acknowledged distress limits care utilisation (van der Weele, de Jong et al., 2012; Wittkampf et al., 2008).

An important finding in this study concerns the association between loneliness and acceptance of the interventions. Our findings showed that (severe) feelings of loneliness were highly prevalent in our sample, in several cases accompanied by a lack of personal meaning. Literature on resilience underlines the significance that many older persons attach to feelings of
connectedness and caring for others (Janssen, Van Regenmortel, & Abma, 2011). Earlier findings have established the reciprocal relationship between loneliness and depression (Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006) and associations between loneliness and a self-perceived need for care (van Beljouw et al., 2010). Yet, to our knowledge, this is the first study to show that feelings of loneliness motivated many older people to accept an intervention offer, hoping for opportunities to meet other (likeminded) people or just someone to talk to. Although many individuals did not see a match between the intervention programme and their self-perceived needs, this was especially true regarding needs to meet other people. Even so, persons with (severe) feelings of loneliness decided to take part in the interventions, perhaps because they perceived the offer of a nurse visiting them at home as a second-best option to at least partly fulfil their needs (Chew-Graham et al., 2007). This is supported by our finding that persons with a limited social network were more inclined to accept the interventions than those with larger networks. Yet, socially isolated persons (with none or one social contact) more often decided to decline participation, which is in line with previous intervention studies who had great difficulties to reach this group of very vulnerable older adults.

Clinical implications
Our findings bring about several implications for health care providers, policy makers and researchers. First, in discussing depressive symptoms with older adults, terminology should be attuned to their illness perceptions. That is, addressing difficulties due to growing old and experiences of ageing-related losses instead of using medical (stigmatising) terms such as ‘feeling depressed’ (van der Weele, de Jong et al., 2012; Wittkampf et al., 2008).

Until now, depression care is mainly provided by offering medical care and formal support. Our findings suggest that older adults’ perceived needs for care should be seen in a broader perspective, including support with respect to social relationships, (re)creating personal meaning and connectedness with others, preferably by strengthening their resilience and their own coping skills. This is in line with previous findings that indicate that psychosocial needs are the most prominent unmet needs in older persons in previous studies (Hoogendijk et al., 2014; Houtjes, van Meijel, Deeg, & Beekman, 2011). Interventions can be developed and implemented in psychiatric care. However, since reducing loneliness is on the fringe of the medical field, social welfare organisations and older adults themselves could also play an important part in this, for instance by providing peer-to-peer support. Future studies should further explore these possibilities.

Strengths and weaknesses of the study
To our knowledge, this is the first multi-method study into the deliberations of older people with depressive symptoms on care initiation. The combined approach of quantitative and qualitative research methods allowed for a thorough examination of this decision-making process.
Our study also has its limitations. As can be expected, results are only based on the perspectives of subjects who were screened and gave informed consent to (initially) participate in the study. Also, due to time constraints purposive sampling for the semi-structured interviews was less feasible, leading, for instance, to a limited number of subjects who declined the intervention programme and male subjects who were interviewed. Yet, since data saturation was reached we feel confident to have acquired a wide range of perspectives. Finally, data on the influence of others on participants’ decision to accept or decline the interventions (e.g. how discussions took place and the value of others’ (dis)approval) is perhaps scant. However, since participants stated that others did not influence their decision, this was not further elaborated on during the interviews.

**Conclusion**

This study shows that the implementation of an outreaching stepped care intervention programme aimed at reducing late-life depressive symptoms requires much effort to reach eligible persons who are interested in accepting such an offer. It further appears that this approach can only partially meet older adults’ perceived needs, since many needs are related to a lack of connectedness with others and are, therefore, broader than only managing depressive symptoms by using evidence-based interventions.
REFERENCES


