Part III:
Reasons for (not) seeking help
Chapter 3

Reasons and determinants of (not) seeking help

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Reasons and determinants of help-seeking in people with a subclinical depression.
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Abstract

**Background:** Subclinical depression is common. Although interventions have proven to be effective, participation rates are low. This study first aimed to get more insight in help-seeking and reasons for (not) seeking care. The second aim was to identify characteristics that distinguish people who receive help, those with an unmet need, or no perceived need for care.

**Methods:** Respondents with a subclinical depression (n = 162) were recruited from the general population. They were eligible for participation if they were aged 18 years or older, scored 20 or higher on the K10 screening instrument for depression, and did not meet the criteria for major depression.

**Results:** Of all participants, 27% received help, 33% had an unmet need, and 40% had no perceived need for care. Participants with no perceived need reported not to experience symptoms, were able to solve problems on their own, and could mobilize their own support. They were characterized by lower scores on neuroticism and an older age than those who received care.

**Limitations:** The response rate in this study was relatively low which may have caused a selection bias.

**Conclusion:** Not all people with subclinical depression may need help for their symptoms; some are able to deal with problems on their own. However, others experience a need for care but do not receive any. Gaining insight into potential barriers for help seeking and receiving in people with an unmet need is important so appropriate measures can be taken to ensure that those who need care get the help they want.
Introduction

Subclinical depression is common and has a significant impact on daily functioning (1, 2) while at the same time creating a large burden for the society (3). Subclinical depression can be defined in different ways such as (1) a score above a threshold on a screening instrument without meeting the full criteria for major depression according to the DSM-V or (2) having a depressed mood accompanied with additional symptoms, but not as severe or as many as the DSM-V criteria for major depression (4-6). The definitions proposed in the DSM-V of clinical and subclinical depression suggest a qualitative difference between the two, however, research indicates that depression is best viewed on a continuum from no symptoms to many symptoms (7-9). Subclinical depression is considered part of the prodromal phase of depression and is one of the best predictors of major depression (1, 5).

The incidence and prevalence rates of subclinical depression vary widely depending on the definition, population, and instruments that are used. Estimates of the incidence rates range from 2.3% to 12.9% and prevalence rates vary from 2.2% to 24% in community samples (10, 11). Compared to the prevalence of full blown depressive disorders these prevalence rates are equal or higher. It is estimated that, in the Netherlands, approximately 7.5% of the general population meets the criteria for a subclinical depression (1). Although research has shown that effective interventions are available to ameliorate symptoms in individuals with a subclinical depression and to prevent the onset of major depression (12), only few people who could benefit from these treatments actually participate in these interventions. Help-receiving rates in individuals with a subclinical depression range between 1% and 32% (13). Since preventive treatments have shown to be effective, it is important to know what the reasons are for people with subclinical depression not to seek help, and what kind of people do or do not seek help for their symptoms.

Research on help seeking behaviour is often guided by Andersen and Newman’s model for health services utilization that distinguishes three interrelated factors; need factors, predisposing factors, and enabling factors (14). According to this model need factors include both the individual’s own judgment of their health and symptoms (perceived need) and the professional assessment of the individual’s symptoms and health based on a clinical instrument (actual need) (14-16).

Predisposing factors consist of personal, social, and cultural characteristics of individuals such as demographic factors (e.g. gender), social structure (e.g. education, relationship status), and belief factors towards the health care system and symptoms (e.g. expectations of treatment outcome and/or their health) (17). Enabling factors relate to organisational factors which affect the availability and affordability of mental health care (e.g. individual’s financial situation, location and distribution of health care facilities) (18).
The model of Andersen and Newman contains feedback loops between the various factors, illustrating the interrelations between those factors. For example, the ability to recognize symptoms (a need factor) is closely related to age and the level of education (both predisposing factors), health related quality of life (e.g. when people do not experience a burden of disease they might not seek help) and the severity of symptoms (actual need) (17, 19).

Furthermore, looking at (actual) need factors, research in the general population has shown that depressive disorders are often accompanied by alcohol use disorders, with depressed individuals having a 2-to-3-fold increased risk of alcohol use disorders (20-22). Research on help-seeking in people with and without an alcohol disorder is contradictory with some studies showing no difference in help-receiving (23) and others showing a reduced tendency to seek care in people with an alcohol disorder (24, 25). Also, previous episodes of depression tend to make people with recent depressive episodes seek help more quickly (26).

Research on age is not clear cut with some research indicating that increasing age is related to a greater need for and receiving of professional help (27-29) and other studies showing that young people, people with more positive experiences of their mental health care, and people who acknowledge their mental problems receive more mental health treatment (13, 19, 30, 31). Research on gender and help-seeking showed that men are less likely than women to seek help, which might be due to gender-role differences and what is viewed as masculine (28, 32). Furthermore, research on stigma and help-seeking in depression is contradictory, with some research showing a relation between stigma and help-seeking (33-35) and others not finding a relation (36). Further research has shown that people with higher scores on neuroticism, a higher education, and those who are in a relationship with a significant other tend to seek more help for their mental health problems (13, 16, 29, 32, 37). However, research in people with affective symptoms has shown that people who have a partner are less likely to seek professional help (38). Above literature shows that there is a lot of information on help-seeking in mental health care and full-blown depressive disorders. However, not many studies have focused on help-seeking in populations with subclinical depression. In the Netherlands preventive care is easily accessible and mostly free of charge to everyone which will minimize the influence of enabling factors.

In the current study we recruited a sample with subclinical depression from the general population in order to get more insight in help-seeking and the reasons for (not) seeking help. In order to do so, we distinguished between people who had: (1) no perceived need for professional help, (2) an unmet need (i.e. they did not receive professional help, but perceived a need for help), and (3) received professional help (people who received care for their symptoms). Furthermore, we examined what type of professional help was used by people who received care.
The second aim was to examine if we could identify characteristics that distinguished people with an unmet need, no perceived need, and those who received professional help. We examined differences in predisposing factors such as, sex, age, education, marital status, mastery, neuroticism, and need factors such as, health related quality of life (HRQoL), alcohol use, duration of symptoms, severity of depression and anxiety symptoms, and comorbid anxiety disorder.

Methods

Participants and procedure
Subjects with subclinical depression were recruited from the general population between September 2012 and February 2013 in collaboration with Municipal Public Health Services (GGD) in three different areas in the Netherlands: Amsterdam, Zuid-Holland West, and Zuid-Holland Zuid. In collaboration with several mental health institutions, the availability of preventive interventions in these areas was optimized and widely advertised (i.e. extensive advertisement through local newspapers, flyers and leaflets with information on the preventive interventions and mental health institutions prevention these were delivered to GPs and individual’s homes to make health care professionals as well as the general population aware of the preventive interventions). In each area the preventive interventions were well distributed, however with the optimisation the emphasize was on five preventive interventions; two web-based interventions and three group interventions: mindfulness training, a coping with depression course, and exercise therapy. Advertisement were focused on people with symptoms of depression such as low mood or feelings of sadness and who wanted to do something about them. We specifically asked about these five interventions, because they form a good representation of the broad range in available preventive interventions throughout the Netherlands and provide enough diversity for people to choose from. Since the focus of these interventions is to prevent (or at least delay) the onset of depressive disorders they are considered preventive interventions. Subjects were also able to indicate if they preferred other interventions.

GGD in the Netherlands are obliged by law to gain insight into the health situation of their citizens and a health survey among a random sample of the population is one way of doing so. The current study joined this survey in 2012. This survey is usually conducted every four years by the GGD and contains questions about physical, mental, and social health and lifestyle. A screening instrument for depression, the Kessler-10 (K10) was included in the 2012 survey (39). Subjects who scored 20 or higher on the K10 screening instrument for depression (40), who were 18 years or older, and who had given permission to be contacted for further research at the health survey were invited
to take part in the current study. They received a letter containing more information about the study and an informed consent form that could be returned to the research team in a prepaid envelope. Subjects with insufficient comprehension of the Dutch language (spoken or written) were excluded. Subjects who were willing to take part and who had signed and returned the informed consent form were contacted by telephone for a diagnostic interview, the Composite International Diagnostic Interview (CIDI) (41), to determine depression status. Respondents who scored negative for a diagnosed depressive disorder in the past 6 months (no major depression or dysthymia according to DSM-IV criteria) were identified as having subclinical depression and were included in the current study. Respondents who met criteria for major depression and/or dysthymia remained in the study, but were not included in this paper. Respondents with subclinical depression received an online questionnaire covering several domains including health care use, personality and perceived need for care, followed by questions concerning their knowledge of preventive interventions and mental health care. As these questions needed more elaboration and explanation by the researchers they were assessed during a short telephone call. Some respondents preferred to answer the questions of the online questionnaire by telephone (n=40), by paper-and-pencil (n=3) or during a home visit (n=3).

**Instruments**

**Diagnostic interview**

The Composite International Diagnostic Interview (CIDI) is developed by the WHO for use by lay interviewers and for research purposes. The instrument has shown adequate validity and excellent reliability for depressive and anxiety disorders (42). In the current study the 6 month version of the CIDI was administered to establish a diagnosis of anxiety (section D) and/or depression (section E) and the lifetime version to identify past episodes of anxiety or depression disorder. The lifetime version was used to establish whether participants had ever had a diagnosis of major depression and/or dysthymia or not. The interview was carried out by Master level students in Clinical Psychology that received 8 hours of training and worked under supervision. It took about 60 minutes to complete, depending on the answers given by respondents.

**Help-seeking**

To distinguish people who had received professional help from those with an unmet need, and those with no perceived need we used questions from the Trimbos/iMTA questionnaire that measures health care uptake associated with Psychiatric Illness (TiC-P) (43) and answers to questions at the short telephone questionnaire.

To establish whether respondents had received (professional) help for depressive...
symptoms in the past 6 months, we used some questions of the TiC-P (43). The TiC-P asks for the number of appointments someone had for psychological problems with the GP, a company doctor, a medical specialist or within specialised mental health care in the past 6 months. We further categorised people into those who had received help in primary care (GP, company doctor, and social worker), those who had received help in specialised mental health care (mental health institution, psychologist or psychiatrist, medical specialist, consultation agency for alcohol and drugs), those with another form of help (e.g. alternative healer), those who received primary care as well as specialized mental health care, those who received primary care as well as other forms of help, those who received specialized mental health care as well as other forms of help, and those who received primary care, specialized mental health care.

In order to establish whether respondents who had not received care, had no perceived need or an unmet need for preventive interventions, we asked whether they would have taken part in one or more of the five preventive interventions (e.g. group cognitive behaviour therapy, group exercise intervention, mindfulness, one of two online interventions, either a problem-solving intervention or an intervention with the focus on cognitive behaviour therapy) if they had known about them in a short telephone questionnaire. If they responded positive, respondents were asked to indicate which intervention(s) they would choose. Also, respondents were able to choose another intervention if they felt none of the preventive interventions were suitable. Respondents that answered negative were asked for the reason as to why they were not willing to take part in these interventions. They were able to choose one or more out of 12 reasons, one answer was an open alternative stating “other”. We recoded all 11 options as well as the open ended option into 7 main categories for not wanting to participate; inability to recognize own symptoms, feeling one can solve his or her own problems, interventions are difficult to reach (for example due to travel distance), people seem unaware of the different aspects of an intervention, people received care in another way (for example from lay people), other external factors, and other reasons.

Demographics
The demographic characteristics used in this study were marital status, education, gender and age.

Health related Quality of Life
The European Quality of Life 5-Dimensions 3-Level (EQ-5D-3L) questionnaire was used to determine people’s health related quality of life (HRQoL). This short self-report questionnaire includes 5 domains; mobility, self-care, usual activities, pain/discomfort, anxiety/depression. Each domain has 3 levels of functioning; no problems,
some problems, and extreme problems. People indicate which level is applicable to their perceived health. The EQ5D distinguishes 486 unique health states that are related to a utility score which ranges from “poor health” (0) to “perfect health” (1). There is extensive literature on the validity and reliability of the EQ-5D in many populations and conditions (44, 45).

Depressive symptoms
The severity of depressive symptoms was assessed with the screening instrument K-10 (39). This questionnaire consists of 10 questions answered on a 5-point rating scale from “never” to “always”. The Dutch version of the K10 has good internal consistency (α=0.94). The reliability in the current study was fair α=0.75, which might be caused by the inclusion of people who only score 20 or higher instead of using the whole spectrum (40). This data was derived from the survey of the GGD.

Anxiety
To establish a co-morbid anxiety disorder we used section D of the CIDI 2.1 (42). To assess the severity of anxiety symptoms we used the anxiety subscale of the Hospital Anxiety and Depression Scale (HADS). Respondents were able to answer questions on a 4-point rating scale ranging from “not at all” to “very often”. The HADS has shown good validity in different populations. The concurrent validity of the HADS is good to very good. The reliability of the HADS-A in the current study was good (α=0.81) (46).

Duration of depressive symptoms
To establish the duration of the depressive symptoms, respondents were asked to give an estimation in months.

Alcohol use
To establish co-morbid alcohol use we have used data from the survey of the GGD stating if someone was a heavy drinker or not. Someone was considered a heavy drinker when they consumed more than 21 glasses of alcohol per week (men) or more than 14 glasses of alcohol per week (women) on average in the past 6 months.

Neuroticism
Neuroticism was assessed with the neuroticism subscale of the NEO-Five Factor Inventory (NEO-FFI) (47). Respondents were asked to answer 12 questions on a 5-point rating scale ranging from “strongly disagree” to “strongly agree”. The reliability in previous research has shown to be fair to good (α=0.64 – α=0.88) and test-retest reliability was good (α=0.75 – α=0.87) (47). The reliability in the current study was good (α=0.84).
Mastery
To assess to what extent respondents felt in control of their life and life-events, we used the short form of the Pearlin Mastery Scale (48). Respondents were able to answer questions on a 5-point rating scale ranging from “strongly agree” to “strongly disagree”. Total scores could range from 5 to 25. Lower scores indicate a more external locus of control, while higher scores indicate a more internal locus of control. The internal consistency was good (α=0.83).

Stigma
To establish levels of personal and perceived stigma the Depression Stigma Scale (DSS) was used (49). This instrument consists of 18 questions answered on a 4-point rating scale ranging from “strongly disagree” to “strongly agree”. There are 2 subscales, each consisting of 9 items, leading to a range of 0 to 36 on both scales. Lower scores indicating less stigma. Both personal and perceived stigma showed good internal consistency (respectively, α=0.72 and α=0.84).

Statistical Analysis
Descriptive statistics were used to determine how many respondents were identified as having received professional care, or experiencing an unmet need or no perceived need, to describe the type of help respondents preferred, and the reasons respondents gave for not perceiving the need to make use of any of the mentioned preventive interventions. To examine whether the predictors (e.g. gender, age, marital status, education level, neuroticism, comorbid anxiety, comorbid alcohol use, mastery, duration of depressive symptoms, severity of depressive symptoms, severity of anxiety symptoms, health related quality of life (HRQoL), previous lifetime diagnosis of depressive disorder, and perceived and personal stigma had an association with help-seeking we first conducted univariate analyses (one way ANOVA, Levene’s test when appropriate, and Chi-square tests). We also conducted post hoc tests for significant Chi-square tests and ANOVAs. We reported the Bonferroni post hoc test, except when Levene’s test was significant we then reported Games Howell post hoc test. Additionally, we performed a multinomial stepwise regression analysis to investigate which of the 12 predictors (gender, education, marital status, alcohol use, comorbid anxiety disorder, duration of symptoms, age, severity of depressive and anxiety symptoms, neuroticism, mastery, HRQoL, previous lifetime diagnosis of depressive disorder, and perceived and personal stigma) influenced receiving care, perceiving an unmet need, or perceiving no need for help the most. The reference category was the group who received help, since this was the only group who had received help, they perceived as needed. Multicollinearity was tested and we also tested the usefulness of the model by looking at the by chance accuracy. This states
the difference between the percentages explained by the tested model compared to a model without predictors. When the percentage explained by the tested model is higher than the percentage explained by the model without any predictors, the tested model is considered useful.

**Results**

**Sample**

A total of 1191 people were invited to take part in the study, this included people with depressive disorders as well as people with subclinical depression. Of these, 331 people (28%) returned their informed consent form and 291 participants (24%) completed the diagnostic interview. Reasons for not completing the diagnostic interview were no response (n = 9), insufficient knowledge of the Dutch language (n=15), physical or mental inabilities (e.g. stroke, psychological stress) (n=4), and/or not in the mood to participate (n=4), one respondent had moved abroad, one respondent did not have time to participate, and 6 respondents did not provide a reason. One hundred and eighty-five people met criteria for subclinical depression and 162 respondents completed the information on help-seeking.

Table 1 shows the descriptive characteristics of the respondents. Age varied widely, the average age was 57 (SD=18), with a range of 19-94 years. Fifty-six per cent of the respondents were female, most had finished middle education and were involved in a close relationship.

<table>
<thead>
<tr>
<th>Table 1. Descriptives</th>
<th>All</th>
<th>Met Need (n=44)</th>
<th>Unmet Need (n=54)</th>
<th>No perceived Need (n=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Female</td>
<td>91 (56.2)</td>
<td>23 (52.3)</td>
<td>35 (64.8)</td>
<td>33 (51.6)</td>
</tr>
<tr>
<td>Male</td>
<td>71 (43.8)</td>
<td>21 (47.7)</td>
<td>19 (35.2)</td>
<td>31 (48.4)</td>
</tr>
<tr>
<td><strong>Age, M (sd)</strong></td>
<td>57.2 (17.8)</td>
<td>51.6 (18.4)</td>
<td>53.6 (14.3)</td>
<td>64.1 (17.7)</td>
</tr>
<tr>
<td><strong>Marital Status, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In relationship</td>
<td>93 (57.4)</td>
<td>29 (65.9)</td>
<td>30 (55.6)</td>
<td>34 (53.1)</td>
</tr>
<tr>
<td>Single</td>
<td>69 (42.6)</td>
<td>15 (34.1)</td>
<td>24 (44.4)</td>
<td>30 (46.9)</td>
</tr>
<tr>
<td><strong>Education, n (%)</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Low</td>
<td>24 (14.8)</td>
<td>6 (13.6)</td>
<td>5 (9.3)</td>
<td>13 (20.3)</td>
</tr>
<tr>
<td>Middle</td>
<td>81 (50.0)</td>
<td>22 (50.0)</td>
<td>28 (51.9)</td>
<td>31 (48.4)</td>
</tr>
<tr>
<td>High</td>
<td>57 (35.2)</td>
<td>16 (36.4)</td>
<td>21 (38.9)</td>
<td>20 (31.3)</td>
</tr>
</tbody>
</table>
Received (professional) help
Forty-four respondents (27%) with a subclinical depression had received help for their symptoms. Of the respondent who received help, 30% had received help in primary care, 14% in specialized mental health care, 41% in both primary and specialized mental health care, 9% in primary and other care (e.g. alternative healer), and 7% had received primary care, specialized mental health care, and other care. No respondent had received other care only or a combination of specialized mental health care and other care.

Unmet need
Fifty-four respondents (33%) would have taken part in preventive interventions if they had known about them (unmet need). When asked which preventive intervention (two web-based interventions, mindfulness training, a coping with depression course, and/or exercise therapy) respondents would choose if given the choice, 43% answered they would choose mindfulness, 37% choose group exercise treatment, 33% choose cognitive behavioral treatment, 20% was not able to choose one of the preventive interventions mentioned above, 15% choose the online problem solving treatment “Alles onder controle”, and 13% choose the other online cognitive behavioral treatment “Beter Gestemd Online”. Respondents were able to choose more than one of the preventive interventions.

No perceived need
Sixty-four respondents (40%) did not perceive a need for (psychological) care (no perceived need). Respondents were asked what their reasons were for not willing to participate in a preventive intervention. They were able to choose more than one reason. Half of the respondents explained that they felt they were able to solve their own problems, 44% of the respondents experienced a lack of knowledge about the courses, 38% did not recognize their symptoms and felt that they were not subclinically depressed. Thirty-four per cent indicated they received another kind of help or treatment, 23% indicated they were too old, had no time, or not enough money to participate, 11% explained the interventions were not accessible to them.
Table 2. Associations of predictors with received or perceived need for help

<table>
<thead>
<tr>
<th>Predictor</th>
<th>All</th>
<th>Received Help</th>
<th>Unmet Need</th>
<th>No perceived need</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Female</td>
<td>91 (56.2)</td>
<td>23 (52.3)</td>
<td>35 (64.8)</td>
<td>33 (51.6)</td>
<td>$\chi^2 = (2, n = 162) = 2.46, p = .30$</td>
</tr>
<tr>
<td>Male</td>
<td>71 (43.8)</td>
<td>21 (47.7)</td>
<td>19 (35.2)</td>
<td>31 (48.4)</td>
<td></td>
</tr>
<tr>
<td><strong>Education, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Low</td>
<td>24 (14.8)</td>
<td>6 (13.6)</td>
<td>5 (9.3)</td>
<td>13 (20.3)</td>
<td>$\chi^2 = (4, n = 162) = 3.05, p = .56$</td>
</tr>
<tr>
<td>Middle</td>
<td>81 (50.0)</td>
<td>22 (50.0)</td>
<td>28 (51.9)</td>
<td>31 (48.4)</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>57 (35.2)</td>
<td>16 (36.4)</td>
<td>21 (38.9)</td>
<td>20 (31.2)</td>
<td></td>
</tr>
<tr>
<td><strong>Marital status, n (%)</strong></td>
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</tr>
<tr>
<td>Single</td>
<td>69 (42.6)</td>
<td>15 (34.1)</td>
<td>24 (44.4)</td>
<td>30 (46.9)</td>
<td>$\chi^2 = (2, n = 162) = 1.86, p = .41$</td>
</tr>
<tr>
<td>In a Relationship</td>
<td>93 (57.4)</td>
<td>29 (65.9)</td>
<td>30 (55.6)</td>
<td>34 (53.1)</td>
<td></td>
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<tr>
<td><strong>Alcohol use, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>No</td>
<td>138 (90.2)</td>
<td>37 (90.2)</td>
<td>45 (86.5)</td>
<td>56 (93.3)</td>
<td>$\chi^2 = (2, n = 153) = 1.46, p = .52$</td>
</tr>
<tr>
<td>Yes</td>
<td>15 (9.8)</td>
<td>4 (9.8)</td>
<td>7 (13.5)</td>
<td>4 (6.7)</td>
<td></td>
</tr>
<tr>
<td><strong>Lifetime diagnosis, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Depressive disorder</td>
<td>70 (43.2)</td>
<td>23 (52.3)</td>
<td>28 (51.9)</td>
<td>19 (29.7)</td>
<td>$\chi^2 = (2, n = 162) = 7.89, p &lt; .05^*$</td>
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<tr>
<td>No depressive disorder</td>
<td>92 (56.8)</td>
<td>21 (47.7)</td>
<td>26 (48.1)</td>
<td>45 (70.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Comorbid anxiety, n (%)</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>No</td>
<td>127 (78.4)</td>
<td>28 (63.6)</td>
<td>43 (79.6)</td>
<td>56 (87.5)</td>
<td>$\chi^2 = (2, n = 162) = 8.84, p &lt; .05^*$</td>
</tr>
<tr>
<td>Yes</td>
<td>35 (21.6)</td>
<td>16 (36.4)</td>
<td>11 (20.4)</td>
<td>8 (12.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Duration symptoms, n (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 months</td>
<td>52 (32.1)</td>
<td>9 (20.5)</td>
<td>13 (24.1)</td>
<td>30 (46.9)</td>
<td>$\chi^2 = (2, n = 162) = 13.45, p &lt; .01^{**}$</td>
</tr>
<tr>
<td>1-12 months</td>
<td>38 (23.5)</td>
<td>10 (22.7)</td>
<td>16 (29.6)</td>
<td>12 (18.8)</td>
<td></td>
</tr>
<tr>
<td>&gt;12 months</td>
<td>65 (40.1)</td>
<td>24 (54.5)</td>
<td>23 (42.6)</td>
<td>18 (28.1)</td>
<td></td>
</tr>
<tr>
<td>missing</td>
<td>7 (4.3)</td>
<td>1 (2.3)</td>
<td>2 (3.7)</td>
<td>4 (6.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Personal Stigma, m (SD)</strong></td>
<td>14.86 (4.18)</td>
<td>14.33 (3.91)</td>
<td>15.04 (4.35)</td>
<td>15.06 (4.24)</td>
<td>$F(2, 157) = 0.47, p = .63$</td>
</tr>
<tr>
<td><strong>Perceived Stigma, m (SD)</strong></td>
<td>20.79 (4.97)</td>
<td>21.53 (4.48)</td>
<td>21.09 (5.35)</td>
<td>20.03 (4.91)</td>
<td>$F(2, 157) = 1.32, p = .27$</td>
</tr>
<tr>
<td><strong>Severity depressive symptoms, m (SD)</strong></td>
<td>25.04 (4.90)</td>
<td>26.30 (5.28)</td>
<td>25.74 (5.10)</td>
<td>23.61 (4.12)</td>
<td>$F(2, 157) = 4.93, p &lt; .01^{***}$</td>
</tr>
<tr>
<td><strong>Neuroticism, m (SD)</strong></td>
<td>22.04 (7.84)</td>
<td>24.70 (7.65)</td>
<td>23.15 (7.34)</td>
<td>19.27 (7.61)</td>
<td>$F(2, 159) = 7.68, p &lt; .001^{**}$</td>
</tr>
<tr>
<td><strong>Mastery, m (SD)</strong></td>
<td>10.41 (4.23)</td>
<td>9.77 (4.13)</td>
<td>10.31 (4.01)</td>
<td>10.94 (4.48)</td>
<td>$F(2, 159) = 1.00, p = .37$</td>
</tr>
<tr>
<td><strong>Age, m (SD)</strong></td>
<td>57.22 (17.68)</td>
<td>51.61 (18.40)</td>
<td>53.57 (14.27)</td>
<td>64.16 (17.73)</td>
<td>$F(2, 159) = 9.12, p &lt; .001^{***}$</td>
</tr>
<tr>
<td><strong>Severity anxiety symptoms, m (SD)</strong></td>
<td>6.52 (3.50)</td>
<td>7.68 (3.36)</td>
<td>6.63 (3.22)</td>
<td>5.63 (3.63)</td>
<td>$F(2, 159) = 4.74, p &lt; .05^*$</td>
</tr>
<tr>
<td><strong>HRQoL, m (SD)</strong></td>
<td>0.74 (0.22)</td>
<td>0.74 (0.16)</td>
<td>0.73 (0.25)</td>
<td>0.75 (0.22)</td>
<td>$F(2, 159) = 0.11, p = .90$</td>
</tr>
</tbody>
</table>

*significant at level p < 0.05, ** significant at level p < 0.01 *** significant at level p< 0.001. Post hoc tests significant comparisons; * = received help compared to no perceived need, b = unmet need compared to no perceived need, † Levene's test was significant, therefore the Welch test was reported.
Univariate associations between dispositional and need factors and help-seeking

Results of the univariate analyses showed a significant relation between group and comorbid anxiety disorder ($\chi^2(2)=8.84, p<.05$), duration of symptoms ($\chi^2(4)=13.45, p<.01$), lifetime depression diagnosis ($\chi^2(2)=7.89, p<.05$), severity of depressive symptoms ($F(2, 157)=4.93, p<.01$) and anxiety symptoms ($F(2, 159)=4.45, p<.05$), age ($F(2, 159)=9.12, p<.001$), and neuroticism ($F(2, 159)=7.68, p<.001$) (see Table 2).

Post hoc analyses showed that people without a comorbid anxiety disorder, who experienced a no symptoms or a short duration of symptoms, those with less severe symptoms of depression and anxiety, who were older and who had lower scores on neuroticism were more likely to not perceive a need compared to the people who received help. Post hoc analysis of lifetime diagnosis did not show significant differences between the individual groups. Respondents who were older and had lower scores on neuroticism were also more likely to not perceive a need for help compared to people with an unmet need. There were no significant associations between the no perceived need, unmet need or received help groups and gender, education, personal and perceived stigma, alcohol use, being in a relationship, health related quality of life (HRQoL) or mastery (Table 2).

Multivariate associations between dispositional and need factors and help-seeking

Stepwise regression includes variables until there is no significant improvement to the model. Results, as reported in Table 3, showed that age and neuroticism were the best predictors for received or perceived need for help ($\chi^2(4)=23.15, p<.001$). The step summary results show that age and neuroticism are significant predictors, with neuroticism showing the strongest effect. Overall the model with both age and neuroticism explains 47.6%, this is 5% more than the model without predictors and so our model is considered useful. The results show that people who are older are more likely to not perceive a need for care, OR=1.04; 95% CI=1.01-1.07; $p<.01$. More specifically, for every year people get older they are 1.04 times more likely to not experience a need for care. Also, people who scored higher on neuroticism were more likely to have received help. Specifically, the results showed that for every unit increase in neuroticism, their chance of not experiencing a need for care decreases with 0.92.

Neuroticism showed some correlation with other predictors like severity of anxiety and depressive symptoms, mastery and age. Although multicollinearity is not a problem in the current study, we conducted the analyses again without neuroticism. The results showed that age and severity of anxiety symptoms were predictors, with severity of anxiety symptoms showing the strongest effect.
Table 3. Multinomial stepwise regression analyses dispositional and need factors on help-seeking

<table>
<thead>
<tr>
<th></th>
<th>B (SE)</th>
<th>Lower 95% CI</th>
<th>Odds</th>
<th>Upper 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unmet Need vs Met Need</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.42 (1.02)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.01 (0.01)</td>
<td>0.98</td>
<td>1.01</td>
<td>1.03</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-0.02 (0.03)</td>
<td>0.92</td>
<td>0.98</td>
<td>1.03</td>
</tr>
<tr>
<td><strong>No perceived Need vs Met Need</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.02 (1.09)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.04 (0.01)*</td>
<td>1.01</td>
<td>1.04</td>
<td>1.07</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>-0.08 (0.03)*</td>
<td>0.87</td>
<td>0.92</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Note. $R^2 = .15$ (Cox & Snell), .17 (Nagelkerke). Model $\chi^2 (4) = 23.15, p = 0.00$. *p < 0.01.

Discussion

Participation rates in preventive interventions for depression are low despite the availability of effective interventions to reduce symptoms and to prevent the onset of depression (1, 12, 13). In the current study, we examined help-seeking in people with a subclinical depression. Participants with a subclinical depression were divided into three groups that either: (1) received help for their symptoms, (2) did not receive help, but perceived a need for help, (3) did not perceive a need for help. Guided by Anderson and Newman’s model for health care utilization (15, 17, 50) we further examined characteristics of respondents in those groups.

Results showed that 40% of the respondents did not perceive a need for care, 33% had an unmet need and 27% received professional help. People who had received help mostly found help in a combination of primary care and specialized mental health care. Most people who experienced an unmet need preferred group interventions (mindfulness, exercise, or cognitive behavioural therapy) over web-based interventions (problem solving treatment or cognitive behavioural therapy). Mindfulness and exercise interventions are known to be popular treatments for anxiety and depression (51) which may have to do with the interventions being less stigmatizing and having high accessibility compared to more depression-focused interventions (52). Furthermore, web-based interventions are relatively new. This and the relative old age of our sample make it less surprising that they are, as yet, a less popular option as most people are still unfamiliar with these interventions. An important finding was that many people indicated they lacked knowledge to make a well-informed decision to choose a preventive intervention. Apparently, optimizing advertisement for preventive interventions is not sufficient to provide people with the knowledge they need to choose a suitable intervention. This emphasizes a need to reach the people who perceive a need for care and provide them with the information necessary to make a decision on participation in interventions.
Respondents without a perceived need for professional help frequently mentioned that they believed that their symptoms were not severe enough to seek help or that they were able to solve their problems on their own. This is in line with previous research showing that people’s perceptions of their symptoms and their ability to deal with them is more often mentioned as a reason not to seek help (24, 53, 54) than practical considerations such as lack of money or time (24, 54). Respondents who did not perceive a need for care also frequently stated that they already received help from family or friends, which indicates that they are able to mobilize their own support. Most people in our sample were in a relationship (e.g. easy access to social support) which may be considered a protective factor for need for professional help (38). Also, most respondents who did not perceive a need for help were more likely to not have had a previous episode of depression. This might make it more difficult to recognize the symptoms. Finally, a large number of respondents without a perceived need for help mentioned that they were not familiar with preventive interventions. This may make it less likely for them to see this as an option when they experience problems and they may seek for other options to deal with their problems first.

Respondents without a perceived need for help were older and had lower scores on neuroticism than people who received help, with age being the strongest determinant of help-seeking. Previous research regarding the relation between age and help-seeking in people with a major depression was inconclusive. Our results are in line with the study of Verhaak and colleagues (31) who showed that younger people are more inclined to seek psychological help. Older people might be more familiar with subclinical depressive symptoms in the past and are willing to see if it passes without professional help or wait until symptoms get more severe. Also, people might be less mobile making professional care less accessible. It is well-known that people with a higher score on neuroticism are more likely to seek help for mental health problems in general and this study confirmed that this was also the case in people with a subclinical depression (16, 31, 37). Unlike other research we did not find a relation between gender and help-seeking (30, 32). The existing literature mostly focuses on full-blown depressive disorders and less is known about subclinical populations and help-seeking behaviour. In the current study, there were more women than men in the unmet need group, but the difference was not significant which may be due to the relatively small group sizes. This might also explain why we did not find an effect of stigma on perceived need for help. Another explanation might be the differences in the definition of stigma (55). Furthermore, we found that lifetime diagnosis of depression was associated with help-seeking, but there were no differences between the individual groups. Other research has indicated that people with previous depressive disorders tend to seek professional help sooner than people without life time diagnosis (26).
The results of our study suggests that dispositional factors (age and neuroticism) were more important determinants of help-seeking than need factors such as the severity of symptoms, comorbidity, lifetime diagnosis of depressive disorder, and the duration of symptoms. However, respondents with no perceived need for help had less severe symptoms, a shorter duration of symptoms (or they did not experience symptoms at all), and less comorbid anxiety. When we looked at all factors together, these need factors were no longer significant. Need factors were strongly related with neuroticism and this could have explained our findings. However, when we removed neuroticism from the analyses, the severity of anxiety symptoms became a significant determinant for help-seeking, but this did not apply to other need factors. More research is needed to examine if dispositional factors are indeed more important for help-seeking in people with a subclinical depression and to what extent (actual) need factors play a role.

We did not identify systematic differences between respondents who received care and those who perceived a need for help but did not actually receive that help. This study did not examine why people with an unmet need did not receive help. They may have been unfamiliar with the health care system or there may have been other reasons to explain why they did not receive or seek help. Future research should provide more insight into this issue so we can take measures to overcome potential barriers and ensure that those people who perceive a need for help, but do not receive help get the help they want.

This study has several strengths and limitations. A strength is that participants were selected from the general population through a Health Survey in a random sample. Identification occurred in a two stage process by selecting people with a high score on a screening instrument and excluding people with a major depressive disorder or dysthymia according to a diagnostic interview in the past 6 months (e.g. CIDI). However, the response rate on the Health survey was relatively low and men, people between 18 and 49 years of age, and immigrants were underrepresented in the Health Survey which has automatically caused underrepresentation of these groups in the current study (56). Not all respondents that participated in the Health Survey gave permission to be contacted for further research which may have further increased bias. Unfortunately, response rates are often low in Health studies in the Netherlands, like NEMESIS (57), which may be a result of people being more often contacted to participate in (commercial) research. We excluded people with insufficient understanding of the Dutch language which also limits the generalizability of our findings. Another limitation of this study was that the K10 is not designed to measure symptoms of depression specifically but is a measure of psychological distress. Therefore, symptoms of the K10 and the anxiety subscale of the HADS may overlap. However, the correlation between these measures was only moderately high and we felt that it was justified to include both measures.
in the analyses. Nevertheless, it would have been better to have a pure measure of depressive symptoms. Finally, although the respondents were equally divided over the three groups with no perceived need for care, an unmet need, and those that received help, the number of people in each group was relatively small which may have limited the statistical power to find an effect.

Despite these limitations we believe that this study provides valuable insight in help-seeking in people with a subclinical depression. A large number of respondents did not perceive a need for care and these people were characterized by lower scores on neuroticism and older age. They felt that they were able to solve their problems on their own, did not recognize their symptoms and were able to mobilize their own support. Research has indicated that recognition of symptoms and impact on daily life are essential in (professional) help-seeking (31, 58). However, it may well be that this group of patients does not need professional care due to the natural recovery in subclinical depression as well as the mobilisation of their own support. However, some people experienced a need for care but did not receive any care. Gaining insight into potential barriers for help seeking and receiving in people with an unmet need is important so that appropriate measures can be taken to ensure that those who perceive a need for care get the help they want.
References


conjunction with different diagnostic systems and in different cultures. Archives of General Psychiatry. 1988;45(12):1069-77.


