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Original Article

Delivering stepped care for depression in general practice: Results of a survey amongst general practitioners in the Netherlands

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KEY MESSAGE:

- Almost 40% of the GPs did not assess the severity of newly diagnosed depression
- Structural collaboration with mental health professionals in primary or specialized mental health care was found to facilitate routine severity assessment
- Depression severity assessment was positively associated with allocating stepped care for depression

ABSTRACT

Background: Revised guidelines for depression recommend a stepped care approach. Little is known about the implementation of the stepped care model by general practitioners (GPs) in daily practice.

Objectives: To evaluate the performance of Dutch GPs in their general practice regarding important elements of the stepped care model (identification, severity assessment and stepped care treatment allocation) shortly before the revised Dutch multidisciplinary guideline for Depressive Disorders was published.

Methods: Data was collected through a self-report questionnaire sent to 500 randomly selected GPs. Multivariate logistic regression analyses were employed to investigate whether GP-related characteristics were associated with GPs' self-reported performance.

Results: The study involved 194 GPs (response rate: 39%). Responses indicated that 37% paid systematic attention to depression identification, 33% used a screening instrument, and 63% determined the severity of newly diagnosed depression, generally without using an instrument. Most GPs (72%) indicated to allocate stepped care treatment to the majority of their patients newly diagnosed with depression. However, more than 40% indicated to start with antidepressants, either alone or in combination with psychotherapy. Assessing the severity of newly diagnosed depression and clinical experience were positively associated with allocating stepped care treatment. Structural collaboration with mental health professionals was positively associated with assessing severity.

Conclusion: Delivering stepped care for depression in daily general practice could be further improved. Collaboration with mental health professionals and routine severity assessment of diagnosed depression are positively associated with allocating stepped care.

Keywords: depression, general practice, quality of care, diagnosis, treatment

INTRODUCTION

Depression is a common mental disorder that has a negative impact on everyday functioning, causes great suffering, and incurs both high care costs and costs associated with production losses (1–3). Most adults

who seek help for their depression are treated in general practice (4). From 2008 up to 2010 the Dutch College of General Practitioners (NHG) collaborated with allied health professionals, patient organizations and specialty care colleges, to revise the overarching multidisciplinary

guideline for Depressive Disorders (5). The revised multidisciplinary guideline was published in 2010 and differed from previous guidelines by explicitly recommending a stepped care model for the delivery of evidence based interventions for depression (6). The NHG authorised the primary care part. The recently revised NHG guideline on depression corresponds largely with the multidisciplinary guideline (7). These stepped care recommendations are in line with recommendations from published guidelines in other countries (8–10).

The stepped care model offers a range of several effective treatments. Depending on the severity of the depression, a treatment is allocated, starting with the least intensive treatment that is still expected to generate effects. Patients with sub-threshold and mild depression are offered interventions of low intensity. More intensive treatment options are appropriate for patients who do not successfully respond to low-intensity interventions, or for patients whose symptoms are more severe. To allocate stepped care adequately, patients have to be identified timely, and the severity of depressive symptoms has to be assessed and monitored. Instruments can be helpful for the recognition of depression and the determination of severity (6,7). Although, main principles underlying stepped care models are rather similar in different European countries, there is variation in the specific focus and content of various stepped care models (11–13).

Little is known about the implementation of the stepped care model by general practitioners (GPs) in daily practice. However, previous research suggests that GPs' actual performance might not fully comply with the stepped care model. Under-recognition and consequently under-treatment of depression have been reported, whereas more severe depression is more likely to be recognized (14). When treatment is initiated, one quarter to half of the patients do not receive optimal treatment for a depression in general practice (15).

The aims of this study were to describe the performance of Dutch GPs in daily practice regarding depression identification and screening, severity assessment of newly diagnosed depression and stepped care allocation; in addition, to identify factors influencing the provision of these elements of depression care.

METHODS

Design and variables measured

A survey was conducted among GPs at the end of 2009, using a self-administered questionnaire, developed by our research team and professionals in psychiatry and primary mental healthcare.

GPs were asked questions about the actual performance in their general practice concerning: (1) depression

identification and screening; (2) assessment of severity of newly diagnosed depression; and (3) delivering stepped care to patients with a newly diagnosed depression. Apart from being asked about allocating stepped care in general, GPs were asked how often specific interventions recommended by the multidisciplinary guideline were used in their practice, ranging from low-intensity (watchful waiting) to high-intensity (combination of antidepressant treatment and psychotherapy) interventions (6). These questions had two (yes/no) or four ('rarely/less than 50%/more than 50%/(almost) always') response categories. GPs who indicated not to use a screening instrument, not to assess depression severity or not to use an instrument for assessing severity, respectively, were asked to point out the three most important reasons for not doing so (e.g. perceived patient characteristics, lack of time, unfamiliarity with instruments, insufficient knowledge and skills). Additionally, all GPs were asked to indicate the three most important reasons why they sometimes would not treat a patient according to a stepped care approach. All questions about reasons had also an open response category, giving a GP the possibility to report other reasons. These reasons were assessed by two independent raters and subsumed under the closed response categories.

Moreover, questions about GP-related characteristics were part of the survey, to investigate whether they were associated with the self-reported performance of GPs. These characteristics were selected based on literature and included gender, age, clinical experience, having special interest in patients with depression, having followed training in depression care, having participated in any improvement project for depression care (i.e. breakthrough series, a collaborative model for achieving improvement; pharmaceutical therapeutic audit meetings to improve GPs' prescription behaviour, or other projects) and having structural collaboration with mental health professionals in primary and/or specialized mental health care (16,17). In the Netherlands, structural collaboration between mental health professionals (i.e. nurse, psychologist, psychiatrist) and GPs can be organized in different ways. Either a mental health professional is part-time employed by the GP, or a private primary care mental health professional collaborates with the GP, or consultation by a mental health professional from specialized mental health care is given in general practice.

Participants

A sample of 500 GPs was randomly selected from the total population of approximately 8500 Dutch GPs (except for GPs who were not willing to participate and GPs who have been selected frequently during the past several years) by NIVEL, the Netherlands Institute for

Health Services Research. Recruitment took place by sending information about the study, including the paper questionnaire and a link and login code to the internet, in case a GP preferred to complete the questionnaire online. After three weeks, one reminder was sent to those GPs who did not respond initially.

Statistical analysis

Descriptive statistics were used to describe GPs' performance regarding depression identification and screening, severity assessment and stepped care treatment as well as the most frequent reasons for not using a screening instrument, not assessing depression severity, not using an instrument for assessing severity, or not allocating stepped care, respectively. Multivariate logistic regression analyses were used to investigate whether GP-related characteristics were associated with depression identification, using a screening instrument, assessment of severity, stepped care treatment, and use of specific interventions, respectively. Dependent variables concerning stepped care allocation and specific interventions were dichotomized (<50% and \geq 50% of patients). The independent variables age (30–40; 41–50; 51–64) and years of clinical experience with depression care (1–5; 6–15; 16–38) were categorized into three categories. Whether or not GPs indicated to assess depression severity was used as an additional independent variable in regression models for stepped care treatment and specific interventions, because severity assessment is a possible important factor in choosing treatment intensity. Data was analysed using SPSS version 15.0.

Ethical approval

The study was carried out according to Dutch privacy legislation. Approval by a medical ethics committee was not required for this study.

RESULTS

Study population

A total of 198 GPs (40%) completed the questionnaire. Four GPs were excluded because demographic information was missing and/or one or more sections of the questionnaire were filled out poorly. Consequently, 194 GPs (39%) participated in the study. Table 1 outlines their characteristics.

Depression identification and screening

Descriptive and logistic regression results are depicted in Table 2 and 3, respectively. Over one third of the GPs indicated to pay systematic attention to depression identification in their practice. GPs with special interest in depression and those having structural collaboration with professionals in primary or specialized mental health care were significantly more inclined to do so. One third of the GPs indicated to using a screening instrument, mostly the four-dimensional symptom questionnaire (4DSQ) (18). 'Lack of time' was by far the most frequently indicated reason for not using a screening instrument. GPs who participated in an improvement project were significantly more inclined to use a screening instrument.

Severity assessment of depression

Descriptive and logistic regression results are depicted in Table 2 and 3, respectively. Almost two-thirds of the GPs indicated to assess the severity of a newly diagnosed depression in their practice. Unfamiliarity with instruments and insufficient knowledge and skills were the most frequently indicated reasons for not assessing severity. GPs having structural collaboration with professionals in primary or specialized mental health care were more likely to assess severity. Having followed training in depression care was nearly statistically significant associated with severity assessment ($P = 0.052$). Among

Table 1. Descriptive characteristics of GPs ($n = 194$, unless stated otherwise).

	Mean (SD) or percentage of GPs
Demographic characteristics	
Age, mean age in years (SD)	46.0 (8.7)
Gender (% female)	43%
Clinical experience with depression, mean no. of years (SD)	14.9 (8.9)
Interest, training and quality improvement in depression care	
Having special interest in patients with a depression	43%
Followed a training in depression care in the last three years ($n = 193$)	68%
Participated in an improvement project for depression care ($n = 193$)	36%
Collaboration	
Structural collaboration with mental health professionals	32%
Structural collaboration with mental health professionals in primary care	24%
Structural collaboration with professionals in specialized mental health care	12%

Table 2. Performance of GPs ($n = 194$, unless stated otherwise) in their practice regarding depression identification and screening, severity assessment and stepped care treatment.

Elements of depression care	Percentage of all GPs		Reasons for not performing a specific element ^a	Percentage of GPs who did not perform a specific element
	Yes	No		
Identification and screening				
Systematic identification of depression	37%	63%		
Using a screening instrument ($n = 192$)	33%	67%	Reasons for not using a screening instrument ($n = 120$)	
			Insufficient time	63%
			Unfamiliarity with screening instruments	39%
			Not necessary for recognition of depression	33%
			No or a lack of reimbursement	29%
			Insufficient knowledge and skills	26%
Severity assessment				
Severity assessment of newly diagnosed depression ($n = 193$)	63%	37%	Reasons for not assessing depression severity ($n = 66$)	
			Unfamiliarity with tools for determining severity	58%
			Insufficient knowledge and skills	53%
			Insufficient time	27%
			Determination of severity does not affect treatment policy	21%
Severity assessment and using an instrument ($n = 122$)	22%	78%	Reasons for not using an instrument ($n = 94$)	
			Insufficient time	50%
			No instrument available	48%
			The use of an instrument is not necessary	40%
			Insufficient knowledge and skills	35%
Stepped care treatment				
Allocating stepped care to $\geq 50\%$ of patients newly diagnosed with depression ($n = 187$)	72%	28%	Reasons to sometimes deviate from stepped care ($n = 159$) ^b	
			Perceived patients' preferences	49%
			Insufficient knowledge and skills	45%
			Insufficient time	33%

^aOnly reasons mentioned by $\geq 20\%$ of GPs are shown.

^bThis question was presented to all 194 GPs, of which 18% did not fill out a response.

the GPs who assessed depression severity, less than one quarter used an instrument, mostly the Beck depression inventory (19). The most frequently reported reasons for not using an instrument were insufficient time and having no instrument available. GPs who participated in an improvement project more frequently used instruments for screening as well as severity assessment, respectively.

Stepped care allocation and specific interventions

Almost three quarters of the GPs indicated to allocate stepped care in their practice to more than half of patients with a newly diagnosed depression (Table 2). Patients' preference and having insufficient knowledge and skills were the most frequently indicated reasons to deviate from stepped care. GPs who indicated to determine the severity of depression (as compared to those who did not) and GPs with 6–15 years of working experience with patients with depression (as compared to those with fewer years of working experience) were significantly more inclined to allocate stepped care treatment (Table 3).

Regarding specific interventions, GPs mostly offered a psycho-education, brief therapy, antidepressants or psychotherapy to patients with newly diagnosed depression (Table 4). Watchful waiting and (online) self-help were less frequently provided. Of note, the frequency with which watchful waiting or antidepressant therapy was offered did not differ between the GPs who indicated to allocate stepped care in most cases and those who did not. GPs with special interest in depression were more inclined to provide psycho-education and male GPs provided brief therapy half as often as female colleagues (Table 5).

DISCUSSION

Main findings

This survey among GPs found that about one third of the GPs indicated that systematic identification of depression and using a screening instrument for depression was part of routine work in their practice. Two thirds of GPs

Table 3. Results of multivariate logistic regression analyses to assess associations between GP-related characteristics and GPs' performance in their practice regarding depression identification, depression screening, severity assessment and stepped care treatment allocation.

GP-related characteristics	GPs' performance				
	Systematic identification of depression OR (95% CI) ^a	Using a screening instrument OR (95% CI) ^a	Assessing severity of newly diagnosed depression OR (95% CI) ^a	Using an instrument for severity assessment OR (95% CI) ^a	Allocating stepped care treatment to $\geq 50\%$ of patients newly diagnosed with depression OR (95% CI) ^a
Age					
30–40 years	Reference	Reference	Reference	Reference	Reference
41–50 years	0.53 (0.21–1.34)	0.62 (0.24–1.61)	0.99 (0.41–2.40)	0.27 (0.04–1.72)	0.98 (0.36–2.69)
51–64 years	0.47 (0.16–1.34)	0.70 (0.24–2.10)	0.92 (0.30–2.80)	0.55 (0.14–2.11)	0.44 (0.12–1.65)
Being male	1.05 (0.54–2.05)	1.09 (0.54–2.19)	0.65 (0.32–1.31)	2.18 (0.69–6.83)	0.60 (0.28–1.28)
Clinical experience					
1–5 years	Reference	Reference	Reference	Reference	Reference
6–15 years	0.74 (0.19–2.89)	0.74 (0.18–3.08)	2.90 (0.72–11.60)	1.99 (0.14–28.83)	5.05 (1.04–24.53) ^b
16–38 years	0.41 (0.15–1.15)	0.59 (0.21–1.70)	0.98 (0.38–2.55)	0.91 (0.08–10.50)	1.93 (0.68–5.47)
Having structural collaboration with mental health professionals	2.05 (1.01–4.14) ^b	1.71 (0.83–3.50)	2.45 (1.12–5.37) ^b	2.09 (0.79–5.56)	0.82 (0.36–1.86)
Having special interest in depression	2.35 (1.24–4.43) ^c	1.00 (0.51–1.94)	1.88 (0.97–3.63)	0.95 (0.35–2.61)	1.58 (0.76–3.29)
Followed a training in depression care	1.70 (0.84–3.44)	0.84 (0.42–1.69)	1.95 (0.99–3.84)	1.32 (0.41–4.22)	1.02 (0.48–2.16)
Participated in an improvement project for depression care	1.21 (0.62–2.38)	3.62 (1.86–7.05) ^c	1.61 (0.81–3.21)	3.67 (1.34–10.04) ^c	2.11 (0.95–4.70)
Assessing severity of newly diagnosed depression ^d	–	–	–	–	2.36 (1.13–4.93) ^b

^aOR, odds ratio; 95% CI, 95% confidence interval.^b $P \leq 0.05$.^c $P \leq 0.01$.^dUsed as an additional independent variable in the regression models for stepped care treatment; reference category: GPs who indicated not to assess severity of newly diagnosed depression.

indicated to assess the severity of a newly diagnosed depression, generally without using an instrument. Almost three quarters of GPs indicated to allocate stepped care to more than half of patients with a newly diagnosed depression. Nevertheless, a minority indicated to start with a watchful waiting approach (29%) or (online) self-help interventions (10%) in more than half of these cases, while four out of ten GPs indicated to start with antidepressants or psychotherapy.

Table 4. Allocated interventions for newly diagnosed depression as indicated by GPs.

Type of intervention, in order of intensity according to the 'stepped care model' ^a	Percentage of GPs providing the intervention to $\geq 50\%$ of patients newly diagnosed with depression
Watchful waiting approach ($n = 181$)	29%
Psycho education ($n = 185$)	69%
(Online) self-help ($n = 176$)	10%
Brief therapy ($n = 183$)	50%
Psychotherapy ($n = 182$)	40%
Antidepressants ($n = 190$)	42%
Combination of antidepressants and psychotherapy ($n = 183$)	45%

^aThe intervention categories were not mutually exclusive.

GPs indicated several barriers to the provision of the studied elements of depression care: insufficient time, knowledge and skills (impede the use of a screening instrument, assessing severity and allocating stepped care); unfamiliarity with screening instruments and lack of reimbursement (impede the use of a screening instrument); being not convinced of necessity (impedes the use of instruments for screening and assessing severity); unfamiliarity with tools for severity assessment and the opinion that determination of severity does not affect treatment policy (impede severity assessment); perceived patients' preference (impedes stepped care allocation). Additionally, several GP-related factors were positively associated with the provision of the studied care elements: having participated in an improvement project regarding depression (with the use of instruments for screening and assessing severity), having a structural collaboration with mental health professionals (with systematic identification of depression and severity assessment), assessing depression severity and having an average number of years of working experience (with stepped care treatment), having special interest in depression (with provision of psycho-education) and being female (with provision of brief therapy).

Table 5. Results of multivariate logistic regression analyses to assess associations between GP-related characteristics and the allocation of interventions by GPs to $\geq 50\%$ of patients newly diagnosed with depression.

Allocation to $\geq 50\%$ of patients newly diagnosed with depression							
GP-related characteristics	Watchful waiting approach OR (95% CI) ^a	Psycho-education OR (95% CI) ^a	(Online) self-help OR (95% CI) ^a	Brief therapy OR (95% CI) ^a	Psychotherapy OR (95% CI) ^a	Antidepressants OR (95% CI) ^a	Combination of antidepressants and psychotherapy OR (95% CI) ^a
	Reference	Reference	Reference	Reference	Reference	Reference	Reference
Age							
30–40 years	0.59 (0.23–1.53)	1.29 (0.48–3.42)	0.85 (0.22–3.25)	1.61 (0.65–3.99)	1.59 (0.66–3.85)	1.48 (0.62–3.50)	1.31 (0.55–3.14)
41–50 years	1.41 (0.45–4.46)	0.52 (0.17–1.60)	1.78 (0.28–11.39)	0.86 (0.31–2.43)	0.87 (0.31–2.48)	1.21 (0.45–3.31)	0.89 (0.32–2.47)
51–64 years	1.05 (0.51–2.13)	0.99 (0.48–2.06)	0.85 (0.30–2.45)	0.47 (0.24–0.91) ^b	0.58 (0.30–1.12)	1.20 (0.63–2.30)	0.65 (0.34–1.25)
Being male							
Clinical experience							
1–5 years	0.40 (0.09–1.67)	1.98 (0.47–8.31)	0.73 (0.08–7.06)	2.46 (0.63–9.62)	1.01 (0.26–3.84)	0.58 (0.16–2.14)	1.48 (0.39–5.63)
6–15 years	0.86 (0.30–2.44)	1.24 (0.45–3.44)	1.69 (0.30–9.39)	1.00 (0.37–2.65)	0.89 (0.34–2.31)	0.62 (0.25–1.56)	1.41 (0.54–3.67)
16–38 years	1.01 (0.48–2.13)	1.65 (0.75–3.63)	1.72 (0.59–5.05)	1.67 (0.83–3.37)	0.84 (0.42–1.71)	0.76 (0.37–1.53)	0.67 (0.33–1.36)
Having structural collaboration with mental health professionals	0.85 (0.43–1.67)	2.67 (1.31–5.46) ^c	1.78 (0.62–5.09)	1.70 (0.90–3.20)	1.51 (0.80–2.85)	1.12 (0.60–2.07)	1.19 (0.63–2.24)
Having special interest in depression	0.90 (0.44–1.84)	1.38 (0.68–2.80)	2.27 (0.61–8.49)	1.22 (0.62–2.42)	1.44 (0.72–2.88)	0.69 (0.36–1.33)	0.64 (0.33–1.24)
Followed a training in depression care	1.09 (0.55–2.18)	0.82 (0.40–1.67)	1.24 (0.42–3.63)	0.95 (0.49–1.83)	0.67 (0.35–1.32)	0.69 (0.36–1.31)	0.64 (0.33–1.21)
Participated in an improvement project for depression care	1.16 (0.57–2.40)	1.09 (0.53–2.22)	0.67 (0.22–2.03)	0.68 (0.34–1.36)	1.51 (0.76–3.01)	1.17 (0.60–2.27)	0.69 (0.35–1.34)
Assessing severity of newly diagnosed depression							

^aOR, odds ratio; 95% CI, 95% confidence interval.^b $P \leq 0.05$.^c $P \leq 0.01$.

Study limitations

First, although a random sample of GPs was approached, the response rate of 39% may limit the generalizability of the results. This potential limitation is commonly encountered in survey studies among general practitioners (20). Participating GPs were representative for all Dutch GPs regarding age. However, the percentage of women in the study population was somewhat higher than average (43% versus 38%), and respondents may have differed regarding other not-measured variables. Given the high percentages observed (see Table 1), it is likely that more respondents had a special interest in depression care, followed training in depression care or participated in an improvement project for depression care compared to the total Dutch GP population. Consequently, it is probable that the results of the present study give a too optimistic view of the provided depression care.

Second, a self-report questionnaire was used with the possible consequence that GPs may have given socially desirable answers and that questions and terminology used could be interpreted in a different way than intended. Another limitation was the cross-sectional design of the study. As a consequence, analysis of predictors of allocating stepped care over time was not possible to conduct. Finally, as the survey was confined to GPs actual performance in their general practice, other factors that may influence stepped care provision were not investigated. For example, patient-related factors but also access and availability of interventions can influence the allocation of stepped care (21,22).

Interpretation of findings

The result that 72% of the GPs indicated to deliver stepped care in the most newly diagnosed cases of depression, points out that most GPs already apply a stepped care approach. Correspondingly, a recent Dutch trial in general practice did not find an effect of stepped care for depression and anxiety compared with usual care (23). A well-developed usual care was put forward as a possible explanation for this finding. Another possible explanation was the inclusion of a chronic group of patients for whom a stepped care approach may be less suitable (23). Other patient groups may benefit more from stepped care. For instance, a stepped care model in elderly patients with depressive or anxiety symptoms was effective in reducing the risk of onset of depressive and anxiety disorders (24).

Although most GPs indicated to allocate commonly stepped care, other findings of this study indicate that there still is room for improvement. First, assessing the severity of a newly diagnosed depression was not routinely performed by more than a third of the GPs,

whereas severity assessment is an essential element of a stepped care approach. Second, most GPs who mentioned assessing the severity did not use an instrument. Instruments may be helpful to determine and monitor depression severity, and patients see them as an objective adjunct to medical judgment and as evidence that the GP is taking their mental health seriously (25). Third, 42% of the GPs indicated that antidepressants were offered to 50% or more of the patients newly diagnosed with depression, and 45% of the GPs indicated to do so in combination with psychotherapy. This finding could be interpreted as indicating that GPs offer antidepressants too frequently as a first step in treatment because of the commonness of sub-threshold and mild depression in general practice, the lack of evidence for the effectiveness of antidepressants in mild depression, and the preference of patients with depression for counselling above medication (26,27). Correspondingly, register-based studies have found high antidepressant prescription rates in general practice (4).

Other findings are more difficult to interpret. The relatively infrequent use of (online) self-help interventions may be because these interventions were relatively new. Moreover, there is still inadequate evidence that guided self-help is effective in patients with depression in general practice (28).

The finding that only about a third of the GPs indicated to pay systematic attention to depression identification or use a screening instrument may not be surprising given the serious doubts about the effectiveness of standard screening for depression in general practice, even in high-risk populations (29,30). However, from the perspective that a screening instrument can be used to support the communication with patients and the diagnostic process, one may consider 33% of GPs using a screening instrument a low percentage (7).

Implications for clinical practice and research

Delivering stepped care for depression in daily general practice could be further improved by stimulating routine assessment of severity of diagnosed depression. Findings indicate that structural collaboration with mental health professionals is associated with the implementation of routine severity assessment. In the Netherlands, structural collaboration between mental health professionals and GPs can be organized in different ways. Future research could be focused on which types of collaboration are (most) effective at facilitating stepped care allocation, including routine severity assessment.

Apart from assessing severity, no modifiable GP-related factors were associated with allocating stepped care. This holds true also for specific interventions. Furthermore, GPs themselves indicated that perceived

patients' preferences and personal lack of knowledge and skills were the most common reasons to deviate from stepped care treatment allocation. Further research among both GPs and patients is needed, to explore the influence of GP-related and patient-related factors on applying stepped care treatment allocation for depression in daily practice.

Conclusion

This survey indicated that delivering stepped care for depression in daily general practice could be further improved. Collaboration with mental health professionals and routine severity assessment of diagnosed depression is positively associated with allocating stepped care.

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ETHICAL APPROVAL

The study was carried out according to Dutch privacy legislation. Approval by a medical ethics committee was not required for this study.

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