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136

**MANAGEMENT OF DEPRESSION IN
FAMILY MEDICINE**

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To my family

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1. LIST OF ORIGINAL PUBLICATIONS

- I Ööpik P, Aluoja A, Kalda R, Maaros HI. Family doctors' problems and motivating factors in management of depression. *BMC Fam Pract.* 2006 Oct 30;7:64.
- II Aluoja A, Ööpik P, Kalda R, Maaros HI. Prevalence of depression in primary care patients. *Eesti Arst* 2006; 85(12): 811–816 (in Estonian).
- III Ööpik P, Aluoja A, Kalda R, Maaros HI. Screening for depression in primary care. *Family Practice* 2006; 23: 693–698.
- IV Ööpik P, Aluoja A, Kalda R, Maaros HI. Treatment of depression in primary care. *Eesti Arst* 2005; 84(7): 481–487 (in Estonian).

2. ABBREVIATIONS

BDI	Beck Depression Inventory
CES-D	Center for Epidemiologic Studies Depression Scale
CIDI	Composite International Diagnostic Interview
DEPRES	Depression Research in European Society
DSM-IV	Statistical Manual of Mental Disorders, Fourth Edition
EST-Q	Emotional State Questionnaire
EEK	Emotsionaalne Enesetunde Küsimustik
FD	Family Doctor
GDS	Geriatric Depression Scale
GHQ	General Health Questionnaire
ICD-10	International Classification of Diseases and Related Health Problems, 10th Revision
ICPE	International Consortium of Psychiatric Epidemiology Survey
LR	Likelihood ratio
MINI	Mini-International Neuropsychiatric Interview
NaSSA	Noradrenergic and specific serotonergic antidepressants
NCS	National Comorbidity Survey
NCS-R	The National Comorbidity Survey Replication
NPV	Negative predictive value
NSMHWB	National Survey of Mental Health and Well-being
ODIN	European Outcome of Depression International Network
PPV	Positive predictive value
PRIME-MD	The Primary Care Evaluation of Mental Disorders
PHQ	Patient Health Questionnaire
RIMA	Monoamine oxidase inhibitor
SCAN	Schedule of Clinical Assessment in Neuropsychiatry
SNRI	Selective noradrenalin reuptake inhibitor
SSRI	Selective serotonin reuptake inhibitor
TCA	Tricyclic antidepressant
WHO	World Health Organization

3. INTRODUCTION

There are several events in life, which make people seek help from a doctor because of problems and diseases appearing or exacerbating in different periods. Patients themselves can not distinguish what has made them feel worse and what kind of help they need. Approximately 20–40 patients attend my consultations daily but up to 10–20% of them have complaints that can be caused by mental problems and can also be symptoms of depression. Also, the results of a study performed in 1996–1997 indicate that 11.1% of the Estonian population suffer from significant depressive symptoms (Aluoja *et al* 2004). The author has increasingly diagnosed depression in her patients and prescribed antidepressants for treatment. Diagnosing depression and prescribing the right cure is not simple in family doctors' daily work. Some symptoms of depression can be confused with those of other medical conditions. For example, weight loss and fatigue may be associated with disorders such as diabetes, cancer, and thyroid disease. Other researchers have pointed out the same difficulty as well (Whooley *et al* 2000). Often, people with depression do not realize that their feelings are due to a medical condition and hence they do not seek medical care for depression. The proportion of patients with depression who reported only somatic symptoms was 45–95% (Simon *et al* 1999). However, depression is a medical condition, not a normal reaction to a life situation such as the death of a loved one or the loss of job.

A large number of persons suffering from depression do not evaluate their emotional health as poor, or they simply do not want to talk about the problem. Patients who rated their emotional health poorer were significantly more likely to discuss depression with their physicians. Female patients were almost 3.5 times more likely to bring up depression before their physicians did than male patients. More educated patients were significantly more likely to bring up depression before their physicians did during a medical visit (Sleath *et al* 2002).

At the same time, dealing with the patients with depression symptoms takes from me and other family practitioners more consultation time compared with other patients (Tähepõld *et al* 2003, Sleath *et al* 2002). Without additional easily applicable diagnostic means making of a correct diagnosis is complicated in primary health care. Because there are no laboratory tests for depression and no biological markers that can be routinely measured, the diagnosis of depression is made using a number of reliable depression scales and questionnaires that can help the physician rapidly identify symptoms of depression and assist in prescribing appropriate treatment. In addition, the primary care physician can explain the biochemical nature of depression and reassure the patient that the symptoms are not due to an inherent personality “weakness” (Ferguson 2000). There is little information about which screening questions work best.

The above described practical need gave me the idea and stimulated me to investigate more profoundly the most important symptoms of depression and

the possibilities of identifying patients who need more thorough diagnostics in family practitioners' daily work. I was able to satisfy my interest owing to the fact that the PREDICT investigation had been initiated in Estonia which a great number of patients were enrolled. They passed the Composite International Diagnostic Interview and were asked about several risk factors of depression. I am glad to have made a contribution to the activity of this working group by adding my survey to their research.

4. REVIEW OF THE LITERATURE

4.1. Epidemiology of depression

4.1.1. Prevalence of depression in population

Depression is one of the most prevalent psychiatric conditions in the community. Several surveys have been performed to find out the prevalence of depression among population, among them international surveys in different countries and continents (Lepine *et al* 1997, Ayuso-Mateos *et al* 2002, Andrade *et al* 2003). Other surveys have focused on the prevalence of depression in one country only (Blazer *et al* 1994, Kessler *et al* 2003, Wilhelm *et al* 2003, Patten *et al* 2006). The results from several studies demonstrate that lifetime prevalence estimates of depression varied widely, from 3% to 17.1%, while the point prevalence of major depression varied from 0.9% to 15.1% (Table1).

Table 1. Prevalence of depression in community on the basis of epidemiological studies

Country	Study	Instrument (diagnostic criteria)	Reference	Major depressive episodes %	Lifetime prevalence %
Finland Urban Rural	ODIN	SCAN (DSM-III/IV, ICD-10)	Ayuso-Mateos et al 2002	4.7 *	
Ireland Urban Rural				4.1 *	
Norway Urban Rural				15.1 *	
Spain Urban				5.5 *	
UK Urban Rural				7.0 *	
				8.48 *	
				1.8 *	
				7.8 *	
Canada		CIDI (CCHS1.2)	Patten et al 2006	6.1 *	12.2
US	NCS	CIDI (DSM-III-R, ICD-10)	Blazer et al 1994	1.8 *	17.1
US	NCS-R	CIDI (DSM-IV)	Kessler et al 2003		16.2
Australia	NSMHWB	CIDI (DSM-IV, ICD-10)	Wilhelm et al 2003	3.2 *	
Belgium France Germany Netherlands Spain UK	DEPRES	MINI (DSM-III)	Lepine et al 1997	5.0 **	
				9.1 **	
				3.8 **	
				6.9 **	
				6.2 **	
				9.9 **	

Country	Study	Instrument (diagnostic criteria)	Reference	Major depressive episodes %	Lifetime prevalence %
Brazil	ICPE	CIDI (DSM-III-R, for Germany and Czech Republic DSM-IV)	Andrade et al 2003	3.9 *	12.6
Canada				1.9 *	8.3
Chile				3.3 *	9.0
Czech Republic				1.0 *	7.8
Germany				1.3 *	11.5
Japan				0.9 *	3.0
Mexico				2.2 *	8.1
Netherlands				2.7 *	15.8
Turkey				3.1 *	6.3
US				4.6 *	16.9

* point prevalence

** 6-month prevalence

Table 1 shows the difference between the estimates of prevalence of depression in rural and urban areas. The prevalence of depression depends upon the instrument and on the diagnostic criteria used. The prevalence of major depressive episode as diagnosed in Germany using two different instruments ranged from 1.3% to 3.8%; similar figures have been reported from the UK. An epidemiological study performed in the US found a difference in the prevalence of major depressive disorder for different racial/ethnic groups (Blazer *et al* 1994). An Estonian survey revealed that 11.1% of the population had symptoms of depression (Aluoja *et al* 2004).

4.1.2. Prevalence of depression in primary care users

Depression is very common in primary care settings, as the prevalence rate of major depression has ranged from 1.5 to 27.3 (Simon *et al* 1999, Spizer *et al* 1999, Henkel *et al* 2004) (Table 2). Depressive disorders or significant depressive symptoms have been found in up to 55% of patients visiting general or family practitioners (Spizer *et al* 1999, Henkel *et al* 2004, Simon *et al* 2004) (Table 2).

Table 2. Prevalence of depression in primary care

Country	Instrument (diagnostic criteria)	Reference	Major depressive episodes %	Depressive disorder %
Spain (Barzelona)	CES-D	Simon et al 2004		31 *
Israel (Be'er Sheva)				24 *
Australia (Melbourne)				52 *
Brazil (Porto Alegre)				52 *
Russia (St. Petersburg)				55 *
US (Seattle)				34 *
Germany	CIDI (DSM-IV)	Henkel et al 2004	10.2 **	18.3 **
Turkey (Ankara)	CIDI (DSM-IV)	Simon et al 1999	10.8 **	
Greece (Athens)			7.1 **	
India (Bangalore)			8.5 **	
Germany (Berlin)			5.3 **	
Netherlands (Groningen)			14.4 **	
Nigeria (Ibadan)			4.1 **	
Germany (Mainz)			10.0 **	
UK (Manchester)			17.1 **	
Japan (Nagasaki)			1.5 **	
France (Paris)			13.6 **	
Brazil (Rio de Janeiro)			18.3 **	
Chile (Santiago)			27.3 **	
US (Seattle)			6.4 **	
China (Shanghai)			2.4 **	
Italy (Verona)	4.6 **			
US	PRIME-MD PHQ	Spizer et al 1999	10 ***	16 ***

* past week

** point prevalence

*** previous 2 weeks

The prevalence of depressive disorder is higher among primary care users than in population. This is expected because persons who have not health complaints not visit their family doctors (FDs).

4.1.3. Disability and depression

Disability is associated with major depression. It has been found that the rates of mental disability were the highest in middle age and the rates of physical disability increased with age (Wilhelm *et al* 2003). Severity of depression and medical comorbidity are associated with longer absence from work (Chisholm

et al 2003). By the year 2020, depression is prognosticated rank to second in disability calculated for all ages and for both sexes (World Health Organization (WHO)).

4.2. Risk factors for depression

Risk factors for depression may be conceptualized as being either intrinsic to the individual, or are residing within the social environment.

The consensus reached in most community-based epidemiological studies is the following: women are at greater risk for major depression than men; persons of a lower socioeconomic status are at greater risk than those who are more well-off economically; younger persons are at greater risk for major depression than older persons; persons who are separated or divorced show higher rates of major depression than persons who are married or have never been married; blacks are somewhat less at risk than whites (Patten *et al* 2006, Wilhelm *et al* 2003, Blazer *et al* 1994, 1998, Andrade *et al* 2003, Aluoja *et al* 2002, Williams *et al* 2007). Married people displayed the lowest prevalence, but the effect of marital status changed with age, the annual prevalence may increase with age in men who have never been married (Patten *et al* 2006). Female persons were found to have higher risk for minor depression (Blazer *et al* 1998). The prevalence of major depression was related to having chronic medical condition, and to unemployment (Patten *et al* 2006, Dutton *et al* 2004). Poverty and unemployment were associated with longer episodes of common mental disorders (Weich *et al* 1998). Medical chronic illness had the strongest association with depression (Wilhelm *et al* 2003). Strong association was found between depression and medical or physical comorbidity (Chisholm *et al* 2003). Depression is also associated with chronic physical illness and with relationship or financial difficulties, and sufferers are pessimistic about recovery (Tylee *et al* 1999). Up to half of the patients were categorized as currently depressed (Tylee 2000). Smoking cigarettes was more highly correlated with current major depression than drinking alcohol (Wilhelm *et al* 2003).

The consensus from most community-based epidemiological studies is that persons in urban areas are at greater risk for major depression than persons in rural areas (Patten *et al* 2006, Wilhelm *et al* 2003, Blazer *et al* 1994, 1998, Andrade *et al* 2003, Aluoja *et al* 2002). According to the NCS carried out among persons with major depression, male gender and older age were associated with higher prevalence with a seasonal pattern (Blazer *et al* 1998). The prevalence of major depression was related to global health-related quality of life (Herman *et al* 2002) and negative life events (Salokangas *et al* 1998). Strong association was found between depression and medical or physical comorbidity (Chisholm *et al* 2003).

4.3. Screening of depression

4.3.1. Characteristics of screening instruments

In evaluation of screening instruments, sensitivity, specificity, false negative and positive rates, positive and negative predictive values, and the likelihood ratio are important. Sensitivity is the chance of detecting a disease when present; specificity is the chance of ruling out a disease when absent. Predictive values indicate the relative frequency of a predictor being correct (Riffenburgh 1999). The likelihood ratio (LR) is a way to incorporate sensitivity and specificity of the test into a single measure. The LR shows how much we should shift our suspicion in a particular test result. A positive LR (sensitivity/1-specificity) indicates how much we have to increase the probability of a disease if the test result is positive. A negative LR (1-sensitivity/specificity) reflects how much we have to decrease the probability of a disease if test result is negative (Biggerstaff 2000).

4.3.2. Most common screening instruments

Self-rate instruments vary in the number of symptoms, duration of symptoms and the scale of evaluation. Although each measure has a unique scoring system, higher scores consistently reflect more severe symptoms (Sharp et al 2002). For screening of depression, there are a number of different instruments (Table 3).

Table 3. Screening Measures for Depression

Measure	Number of items	Completion time (approximate minutes)
Beck Depression Inventory (BDI) (Beck 1961)	21	5 to 10
Beck Depression Inventory-II (Beck <i>et al</i> 1996)	21	5 to 10
Beck Depression Inventory-PC (BDI-PC) (Beck <i>et al</i> 1997)	7	Less than 5
Center for Epidemiological Studies Depression (CES-D) (Radolff <i>et al</i> 1977)	20	5 to 10
Center for Epidemiological Studies-Depression Scale for Children (CES-DC) (Fendrich <i>et al</i> 1990)	20	5 to 10
Zung Self-Rating Depression Scale (Zung 1965)	20	5 to 10
Geriatric Depression Scale (GDS) (Yesavage <i>et al</i> 1983)	30	10 to 15
Geriatric Depression Scale-short (Sheik <i>et al</i> 1986)	15	5 to 10
General Health Questionnaire (GHQ) (Goldberg)	12	5 to 10
Patient Health Questionnaire-9 (PHQ-9)	9	5 to 10

Different screening instruments differ in the number of items, symptoms and duration symptoms. It has been attempted to screen depression with two questions about depressed mood (Arroll *et al* 2003). This method has high sensitivity accompanied by a high number of false positive results. The shortcoming of different screening instruments is occurrence of false positive and false negative results. There is no evidence that one method of screening for depression works better than another (Task Force 2002). Depression screening measures do not diagnose depression, but they provide an indication of severity within a given period of time (Sharp *et al* 2002). Depression occurs in children, adolescents, adults, and the elderly. The most commonly used screening measures for adults in primary care settings include the Beck Depression Inventory, the Zung Self-Depression Scale, the General Health Questionnaire (GHQ) and the Patient Health Questionnaire-9 (PHQ-9). The GDS 30- and 15-item versions for the elderly are the most highly evaluated screening instruments. Screening measures for children and adolescents have been primarily used for research, and their clinical use in primary care settings has not been established (Sharp *et al* 2002).

Screening instruments for different age groups are different because the main symptoms vary with age. A significant effect was exerted by ethnicity, with contributions from the items agitation and irritability (Carmody 2005). Women showed higher depression scores than men and women showed also higher scores than men for a number of items, as sadness, crying, energy and fatigue (Carmody 2005, Endler *et al* 1999).

4.4. Clinical forms and diagnosis of depression

4.4.1. Clinical symptoms of depression

Depression is mostly thought to be a steady feeling of sadness which is accompanied by other symptoms. The symptoms of depression as a disease are the following: depressed mood, loss of interest in nearly all activities, loss of capacity for enjoyment, insomnia or hypersomnia, waking in the morning several hours before usual time, depressed mood with a particular expression in the morning, reduced self-esteem and self-confidence, feeling of worthlessness or excessive guilt, fatigue or loss of energy, marked tiredness after even a minimum effort, diminished ability to think or concentrate, substantial change in appetite or weight, psychomotor agitation or retardation, recurrent thoughts of death or suicide and loss of libido.

4.4.2. Classification of the clinical forms of depression

The most important bases of classifying mood disorders are nature of symptoms, severity of symptoms and duration of symptoms. Two different classifications are used in diagnosing depression. These are Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) and International Classification of Diseases, 10th Revision (ICD-10). The DSM-IV diagnostic categories for depression are: minor depression, dystymia, major depression. The diagnostic categories of ICD-10 for depression are: mild depressive episode, moderate depressive episode, severe depressive episode, severe depressive episode with psychotic symptoms and other depressive episode (atypical depression). Major depression according to DSM-IV corresponds to moderate depressive episode or severe depressive episode according to ICD-10.

Table 4. Definition of major depression by DSM-IV and ICD-10

Major depression	Criteria	Duration
DSM-IV	≥ 5 depressive symptoms, including depressed mood or loss of interest in nearly all activities	≥ 2 weeks
ICD-10	≥ 4 depressive symptoms, including two of the symptoms (lowering of mood, reduction in energy, and decrease in activity)	≥ 2 weeks

Diagnosis of major depression according to DSM-IV does not differ from diagnosis according to ICD-10, although in the former care diagnosis of depression requires more than one positive symptom.

The diagnostic categories of depression depend upon the number and severity of the symptoms. Higher depressive symptom scores in primary care patients were consistently associated with poorer health, functional status, global health-related quality of life, and increased use of health care, but not with demographic variables (Herman *et al* 2002). Treatment of patients depends mostly on the diagnostics according to classification.

4.4.3. Composite International Diagnostic Interview

The Composite International Diagnostic Interview (CIDI) is a fully structured and standardized non-clinical psychiatric interview designed for use in general population surveys. The Interview is designed to assess major mental disorders including unipolar depression, bipolar disorder, panic disorder, social phobia and alcohol and drug dependence (WHO).

4.5. Family doctors attitudes towards depression

Only a few studies have been conducted on the family doctors' opinions about depression related problems in their work.

General practitioners have reported that the main obstacles to providing a good service for people with depression included not having enough time, too much work lack of services to refer to and difficulty in accessing services. The factors that influenced general practitioners to refer patients with depression to other services were risk to the patient, a clear need for specialist treatment and the need for assessment (Telford *et al* 2002, Ralition *et al* 1999). The ability of FD to diagnose and treat depression is directly related to their knowledge and further training (Rutz 2001). Most general practitioners believed that they could diagnose depression, almost half, of them had previously participated in a depression-related continuing medical education and the level of interest in psychiatry was significantly correlated with the treatment behaviour of general practitioners (Soykan *et al* 2003).

4.6. Treatment of depression

For treatment of depression use is made of pharmacotherapy and other somatic treatments, as well as psychotherapy and other psychosocial treatments. Often combined therapy is applied.

4.6.1. Treatment principles of depression

Family doctors' patients with major depression in different countries received antidepressant pharmacotherapy ranging from low (0%) in St. Petersburg to high (93%) in Australia (Wilson *et al* 2003, Simon *et al* 2004). The probably of treatment may be more influenced by the characteristics of a health care systems than by the clinical characteristics of individual patients (Simon *et al* 2004). Among FDs and psychiatrists were similar drug treatment prescription most often included antidepressants, while FDs often prescribed SSRIs (Wilson *et al* 2003, Ernst *et al* 2006). Compared with FDs, psychiatrists prescribed more often tricyclic and very novel antidepressants with longer duration, antipsychotics as well as mood stabilizers; also their patients received more psychotherapy (Tardieu *et al* 2006). Many clinicians reported their preference for an initial treatment that combined medication and psychotherapy as opposed to either modality alone (Kornbluh *et al* 2001). Study of trends in the rate of treatment during ten years data from the NCS show that the rate of treatment increased more in general medical service than in the psychiatric services. Trends in the rate of treatment were similar in two respects: severity of a disorder was significantly related to rate of treatment, and this

association did not change significantly over time (Kessler *et al* 2005). Also in Spain it was found that similar proportions of patients in specialist care and general medical care received minimally adequate treatment (Fernandez *et al* 2006). Most patients were satisfied with the care that they received from their primary care physician and approximately 65% of patients considered their physician's knowledge of depression and treatment to be excellent or very good (Schwenk *et al* 2004).

4.6.2. Psychotherapy and other psychosocial treatments

The clinical practice guidelines contained in *Depression in Primary Care* (Clinical Practice Guidelines) recommend that psychotherapy and patient education should be considered when treating patients with major depressive disorder. Psychotherapy can take many forms, including cognitive therapy, behavioural therapy, and interpersonal therapy. A few studies have reported the efficacy of psychosocial treatment approaches, including problem-solving treatment (Dowrick *et al* 2000, Mynors-Wallis *et al* 2000), group psycho education (Dowrick *et al* 2000), and the cognitive behavioural analysis system of psychotherapy (Keller *et al* 2000). Psychological therapy was more effective treatment for depression than usual general practitioner's care in short term (Ward *et al* 2000). Generic counselling seems to be as effective as antidepressant treatment for mild to moderate depressive illness (Chilvers *et al* 2001). A combination of an active drug and simple psychological treatment was more effective than simple psychological treatment alone (Malt *et al* 1999).

4.6.3. Common drugs in treatment of depression: antidepressants

The factors to be considered when choosing an antidepressant include the spectrum of adverse effects, long-term tolerability, dosing schedule, clinically significant drug interactions, underlying medical conditions, earlier response to therapy, and medicine-economics (Cohen 1997). More recent antidepressants are clearly effective in treating depressive disorders in diverse settings (Malt *et al* 1999, Thase 1999, Williams *et al* 2000, Petersen *et al* 2002). Most GPs and psychiatrists indicated SSRIs as their first-line treatment preference as they have fewer side effects (Petersen *et al* 2002, Dording *et al* 2002, Wilson *et al* 2003). Patients who had the largest number of symptoms were more likely to be taking antidepressants compared with other patients (Tylee 2000). The most common barrier to receiving treatment was concern about costs and about the adverse effects of a medication (Simon *et al* 2004). Ample evidence shows that treating depression with counselling, medications, or both improves patient outcomes (US Task Force 2002). Combining pharmacotherapy and psychotherapy can be more effective than use of either modality alone (Mynors-Wallis *et al* 2000, Sutherland *et al* 2003).

5. AIMS OF THE STUDY

1. To find out the family doctors' readiness, motivation, problems and needs in management of patients with depression symptoms (Paper I).
2. To estimate the prevalence of depression in family practice (Paper II).
3. To investigate the relationship of depression with some sociodemographic factors, life events and general health of patients (Paper II).
4. To establish the suitability of the EST-Q2 depression subscale for screening of depression in general practice (Paper III).
5. To find out a combination of symptoms allowing family doctors to distinguish patients with depression from patients with other biomedical or psychosocial problems (Paper III).
6. To study the preferences and rationale of family doctors in pharmacological treatment of depression (Paper IV).
7. To examine antidepressant prescribing patterns among family doctors (Paper IV).

6. SUBJECTS AND METHODS

6.1. Study design

Overview of the study designs, subjects and methods is presented in table 5.

Table 5. Study design, subjects and methods

Aim of the study	Study design	Study subjects	Methods	Paper
To find out the FDs' readiness, motivation, problems and needs in management of patients with depression symptoms	cross-sectional study	FDs	questionnaire	I
To estimate the prevalence of depression in family practice	cross-sectional study	FDs' consecutive patients aged 18 to 75, who were recruited in the study (sample I)	face-to-face structured interview CIDI	II
To investigate the relationship of depression with some sociodemographic factors, life events and general health of patients	cross-sectional study	FDs' consecutive patients aged 18 to 75, who were recruited in the study (sample I)	questionnaire	II
To establish the suitability of the EST-Q2 screening scale depression subscale for screening of depression in general practice	cross-sectional study	FDs' consecutive patients aged 18 to 75, who were recruited in the study (sample II)	face-to-face structured interview CIDI and self-rate instrument EST-Q2	III
To find out a combination of symptoms allowing FDs to distinguish patients with depression from patients with other biomedical or psychosocial problems	cross-sectional study	FDs' consecutive patients, aged 18 to 75, who were recruited in the study (sample II)	face-to-face structured interview CIDI and self-rate instrument EST-Q2	III

Aim of the study	Study design	Study subjects	Methods	Paper
To study the preferences and rationale of FDs in pharmacological treatment of depression	cross-sectional study	family doctors	questionnaire	IV
To examine antidepressant prescribing patterns among psychiatrists and FDs	retrospective analysis study	family doctors and psychiatrists	data of the Estonian Health Insurance Fund for 2003	IV

6.2. Subjects

6.2.1. Family doctors

Questionnaires were sent by post to 500 (89% of all FDs) certified practicing FDs in October 2005. Two hundred and five questionnaires were returned. Of the respondents 84(41%) worked in rural and 121(59%) worked in urban areas. The background of the FDs who received the questionnaire is presented in table 6.

Table 6. Background characteristics of the respondents

Location	Solo practice n (%)	Group practice n (%)	Average age, years (\pm SD)	Average length of service as a physician, years (\pm SD)	Average length of service as a FD, years (\pm SD)
Rural (n=84)	63(75)	21(25)	45.9(\pm 8.4)	19.1(\pm 7.7)	5.1(\pm 1.3)
Urban (n=121)	35(29)	86(71)	45.7(\pm 8.5)	19.5(\pm 9.2)	4.5(\pm 2)
Total (n=205)	98(48)	107(52)	45.8(\pm 8.5)	19.4(\pm 8.6)	4.8(\pm 1.5)

Practising FDs in Estonia and the FDs participating in this study were similar regarding the characteristics of gender and location of practice (Paper I Table 2).

6.2.2. Patients

The sample was recruited from April to June 2003 by 23 family doctors (15 from urban and 8 from rural areas) who had shown interest in participating in the study. The recruitment of patients and the design of the study were carried out according to the PREDICT project (King *et al* 2006). The FDs were specially instructed to recruit patients proceeding from the project criteria.

The inclusion criteria were:

- 1) consecutive attendees of FDs' consultations
- 2) patients from urban and rural areas
- 3) patients aged 18 to 75 years

The exclusion criteria were:

- 1) non-Estonian speakers
- 2) presence of a severe organic mental illness
- 3) presence of a terminal illness

After the participants had given their informed consent, a subsequent detailed interview was carried out either at their home or at general practices within two weeks. Then the patients completed the EST-Q2 and a questionnaire for assessment of sociodemographic and health-related risk factors of depression on their own and the interviewers administered the CIDI. The FDs invited 1370 patients, of whom 1175 agreed to take part in the study. A total of 1100 interviews were completed as 75 patients could not be contacted or had changed their mind about participation. Further, 6 interviews of 1100 were excluded due to the incomplete data of the questionnaire for assessment of sociodemographic and health-related risk factors of depression and 42 interviews of 1100 were excluded due to the incomplete data of EST-Q2. Study sample I for investigation of the prevalence of depression in family practice and the relationship of depression with some sociodemographic factors, life events and general health of patients consisted of 1094 persons. Study sample II for establishment of the suitability of the EST-Q2 and for finding out a combination of symptoms for screening of depression in family practice best consisted of 1058 persons: 776(73%) women (mean age 40.5±15.4) and 282(37%) men (mean age 42.7±16.2). The formation and characteristics of the samples is shown in figure 1.

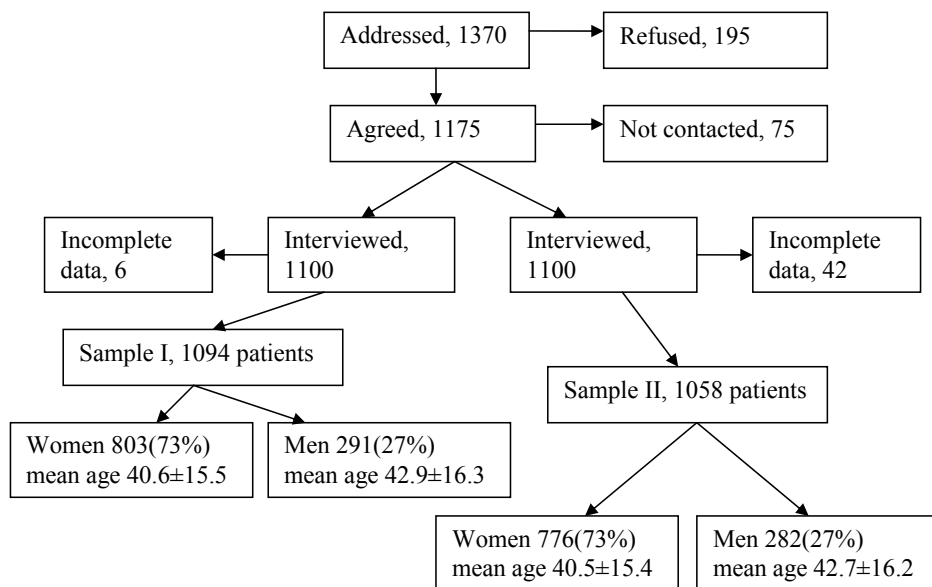


Figure 1. Sample characteristics

6.3. Methods

6.3.1. Questionnaire for family doctors

The questionnaire was compiled and tested by the author of this thesis Pille Ööpik. The tailor-made questionnaire included both closed and open questions. The closed questions required yes/no answers and the open questions required a description of an opinion. The questionnaire included questions about the FDs' background (location of the practice, solo or group practice, age, gender, length of service). The questionnaire consisted of 12 questions (Appendix 1). A questionnaire-based survey was conducted from October to November 2002.

6.3.2. Patient interview with the Composite International Diagnostic Interview

The Composite International Diagnostic Interview (CIDI) was selected for comparison because the reliability and validity of this instrument has been established. The CIDI is a fully structured diagnostic interview providing current (and lifetime) psychiatric diagnoses according to ICD-10 and DSM-IV, which was developed by the World Health Organization. A depressive episode

was established using the Depression Section of CIDI. In this study we used one-month depression determined according to the criteria of ICD-10. The interviews were carried out by trained instructed interviewers. The interview was carried out after the participants had given their informed consent, at their home or at the general practice, within two weeks.

6.3.3. Questionnaire for assessment of sociodemographic and health-related risk factors for depression

Selection of presumed risk factors was based on previous research (Anderson *et al* 1993, Weich *et al* 1997) and on a systematic review of the literature by the work group of PREDICT. Where possible, they used published self-reported measures of established reliability and validity. In some cases, questions were developed for the particular study or adapted from available standardised instruments. The work group PREDICT addressed the risk factors that are intrinsic either to the individual or to the social context, while remaining aware that there is inevitable overlap in such categorisation. A set of risk factors was established specifically for the PREDICT study and was tested for reliability (King *et al* 2006).

In this study we used a questionnaire of socio-demographic factors, economic coping, life events and self-rated of problems physical health.

6.3.4. Patient survey with the screening instrument EST-Q2

A new modification of EST-Q consisted of 32 items, which performs well in psychiatric patients and general population, was developed in 2002 (Aluoja *et al* 1999). The items, which did not belong to any subscale, were omitted. The EST-Q2 contained the subscales of Depression, Anxiety, Agoraphobia-Panic, Fatigue and Insomnia, reflecting the symptoms of depressive and anxiety disorders according to ICD-10 and DSM-IV. Each item was rated on a 5-point scale ranging from 0 to 4 (0 = not at all; 1 = seldom; 2 = sometimes; 3 = often; 4 = all the time). The participants were asked to report how much the various problems had troubled them during the past four weeks, using the scale. The EST-Q2 version consisted of 28 items, the Depression subscale consisted of 8 items encompassing cognitive and affective symptoms of depression. The cut-off point for depression was >11 (Appendix 2).

6.3.5. Estonian Health Insurance Fund's data of drug prescriptions for depression

First, data were inquired from the Estonian Health Insurance Fund about the medicines for treatment of depression prescribed by FDs and psychiatrists according to the prescriptions sent to the Estonian Health Insurance Fund (by pharmacies). As the Estonian Health Insurance Fund receives information only about the medicines compensated by them, it was possible to obtain data about antidepressants (ANDP), antipsychotics (ANPS) and mood stabilizers (MST).

Second, data were inquired about the frequency of new diagnoses of depression made by FDs and psychiatrists according to the treatment invoices sent to the Estonian Health Insurance Fund (by doctors). All data were inquired as of 2003. The data were drawn for the diagnoses with codes F32-F33 according to the criteria of ICD-10.

6.4. Statistical methods

The results of the questionnaire for FDs were analysed with the use of frequency distribution tables. The differences between the groups were tested using the Chi-square test. The open questions were analysed using thematic analysis. All answers to the open-ended questions were recorded. The subsequent statements were first analysed by the first author Pille Ööpik. For identifying any statements, related to the FDs' motivation to deal with depressive patients, and any problems arising during work with depressive patients, all statements expressing motivation for, or indicating problems with working with depressive patients were coded and categorized according to their content and the categories were labelled in order to verify that the described findings reflected the database adequately.

A depressive episode for sample I was assessed using the Depression Section of CIDI, which provides present, six-month and lifetime psychiatric diagnoses according to ICD-10. In these study was assessed present and six-month depression. Analyses were performed with the software package SPSS for Windows 10.0.

Relationship between depression and background factors was estimated by χ^2 -test. When calculating the odds-ratios we took as a reference category the level of background variable to which correspond the lowest rate of depression.

Two-by-two tables were constructed for sample II, displaying screening instrument (EST-Q2) diagnosis (positive/negative) versus CIDI diagnosis (positive/negative). Sensitivity, specificity, false negative and false positive rates, and positive and negative predictive values were calculated to assess the ability of the screening instruments to render the diagnosis of depression according to CIDI. Further, the positive and negative likelihood ratios of the test

were assessed. The likelihood ratio (LR) is a way to incorporate the sensitivity and the specificity of the test into a single measure. The LR indicates how much we should shift suspicion in the case of a particular test result. A positive LR (sensitivity/1-specificity) indicates how much we have to increase the probability of the disease if the test result is positive. A negative LR (1-sensitivity/specificity) reflects how much we have to decrease the probability of the disease if the test result is negative. Stepwise logistic regression was used to find out the best combination of symptoms for screening depression. We developed two regression models. In Model 1 we used the symptoms of the EST-Q2 Depression scale as the predictors of CIDI-diagnosed depression. In Model 2 we added to the predictor variables the somatic and the behavioural symptoms of EST-Q2 depression, plus one anxiety symptom, *worrying too much*. According to our assessment, the scale in which all arguments were statistically significant ($p < 0.05$) was the best. Different cut-off points were used to compare the scales. All analyses were performed with the software package SAS 8.1.

To find out preference for medicines the numbers for the reported preferences were summarized. For analysing preference for medicines, all sentences about the preference were marked and similar preferences were further coded and categorized according to their content. The second author analysed the texts independently in a similar way. A few ambiguities in the analyses were discussed to reach consensus.

The data of the prescribed medicines were analysed with the use of frequency distribution tables. Statistical significance was tested using the Chi-square test. The level of statistical significance was set at $p \leq 0.05$.

6.5. Ethics

The Committee of Ethics of the University of Tartu has approved the study protocol and the form of informed consent of the study.

7. RESULTS

7.1. Factors influencing FDs' readiness and motivation to manage with patients with depression symptoms

Of the family doctors 185(90%) considered dealing with depressive patients being within their competence, while 20(10%) did not. The latter were of the opinion that the problems of such patients were only the psychiatrists' responsibility and that psychiatrists had more time for them than FDs. Of the respondents 180(98%) were willing to deal with depressive persons and 200(88%) had to deal with depression. The opinions of the FDs about depression management were not significantly different depending on the location and type of the practice ($p>0.05$) (Paper II, Table 3).

A large number of FDs 150(73%) use screening tests in the case suspected depression. The most frequently mentioned test was EST-Q2, while the other tests were mentioned less often (Figure 2).

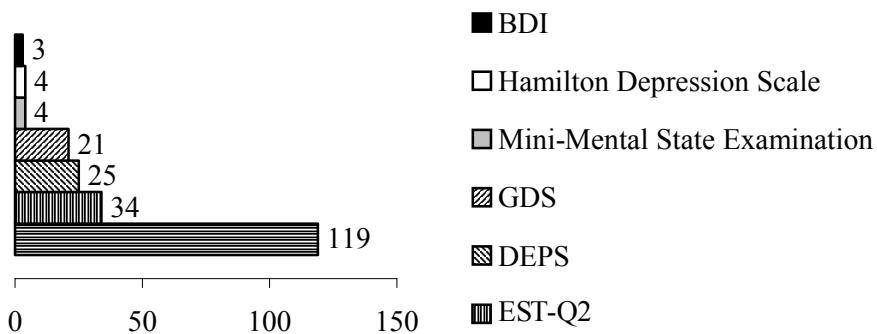


Figure 2. The screening instruments used by family doctors

The FDs pointed out many motivation factors for management of patients with depression symptoms. The motivation factors for the FDs were grouped into five topics according to the content (Table 7).

Table 7. Motivation factors for the family doctors

Category	Example of the FDs statement
High prevalence of depression in primary health care	<p>“Depression is widespread.”</p> <p>“There is a great need for depression treatment.”</p> <p>“Depression often accompanies the main disease.”</p>
FDs' feeling of commitment	<p>“I hope I can help patients.”</p> <p>“We cannot be dispatchers sending people to various places.”</p> <p>“Patients refuse to see a psychiatrist; FDs have to manage on their own.”</p>
Positive results of treatment	<p>“After effective treatment the patient seems reborn.”</p> <p>“Earlier positive experience in depression management.”</p> <p>“If patients receive help, further co-operation will be good.”</p> <p>“If treatment is effective, the patient will not demand clinical investigations any more.”</p> <p>“Several somatic complaints disappear during the treatment of depression.”</p> <p>“Patient's recovery gives much satisfaction.”</p>
FDs' advantages	<p>“Patients' trust is important.”</p> <p>“We know our patients better than psychiatrists do.”</p> <p>“FDs are better informed of concomitant diseases.”</p> <p>“It is much easier for the patient to consult the FD.”</p>
Convenience from the patient's point of view	<p>“A bedridden patient at home cannot go anywhere else.”</p> <p>“Patients do not want to see the psychiatrist. Psychiatrists' offices are located far from the patients' homes.”</p> <p>“Specialists' waiting lists are long.”</p>

7.2. Family doctors' needs regarding problem solving in treatment of depression

The problems that the FDs described regarding management of depressive patients' were grouped into four categories (Table 8).

Table 8. Problems of family doctors

Category	Example of FDs` statement
High rate of depression in primary health care	<p>“Patients' depressive disorders are a daily problem.”</p> <p>“We can see a patient with a depressive background almost every day.”</p> <p>“Depression has become more widespread over the years.”</p>
High cost of management of depression	<p>“The depressive patient requires more consultation time to focus on psychological problems.”</p> <p>“Depression is often accompanied by multiple somatic complaints and patients place high expectation on the investigations performed with the use of apparatuses.”</p>
Patients' difficulties with accepting the diagnosis and with the subsequent treatment	<p>“It is difficult to explain to the patient that depression is the cause of all his/her complaints.”</p> <p>“Patients feel that somatic diseases are “respectable” diseases and are afraid to accept the diagnosis of depression.”</p> <p>“Patients refuse to see the psychiatrist because they think of them as shrinks who treat insane persons.”</p> <p>“Patients do not recognize the cause of depression; they ignore it and will not do anything to change the situation.”</p> <p>“Many patients stop taking their medication or do not start altogether because drugs are expensive.”</p> <p>“Psychological counselling is expensive and psychotherapy is unavailable for many persons due to the location of their home.”</p>
Physicians' inadequate resources/skills to help patients	<p>“Sometimes FDs do not recognize depression.”</p> <p>“It is difficult or impossible for the physician to eliminate the causes of depression.”</p> <p>“In addition to drugs, patients need psychotherapy, behavioural therapy, family therapy, etc.; however, we do not have such skills.”</p> <p>“It is difficult to refer patients to psychiatrists due to their long waiting lists.”</p> <p>“Seeing the psychiatrist often involves additional costs for patients as psychiatric aid may not be available in the neighbourhood.”</p> <p>“There is no co-operation between the FD and the psychiatrist or the psychologist.”</p>

In addition to these problems, the FDs noted the persistence of frequent depression risk factors as unemployment, problems related to work, low income, insecure future, absence of security, unorganized social work.

Of the FDs 115(56%) had sufficient knowledge to diagnose and treat depression, and 90(44%) respondents considered their knowledge inadequate. The opinion of 181(88%) physicians was that they definitely needed further training.

7.3. Prevalence of depression in primary care in Estonia

Proceeding from the diagnostic categories of ICD-10 for depression, 6-month depressive episode was diagnosed in 258(23.6%) and 1-month depressive episode in 169(15.4%) participants of sample I. Among the participants who were diagnosed with 6-month depressive episode, it was more often moderate and severe. However, mild depressive episode was more frequent among the men ($\chi^2 = 12.13$; $p < 0.001$) compared with the women (Table 9).

Table 9. Grade of depression

	Total n(%)	Women n(%)	Men n(%)
Mild episode	36(14)	17(8)	8(17)
Moderate episode	111(43)	88(42)	16(34)
Severe episode	111(43)	105(50)	24(49)

7.4. Factors associated with depression in primary care in Estonia

The factors associated with depression in primary care were feminine gender, lower education, negative life events in the preceding 6 months, lower socioeconomic status, chronic medical illness, disability (Paper IV, Table 1).

Marital status was not significant for the women with depressive episode. Among the men depressive episodes were more frequent for widowers, divorced men and for men who had never been married. Logistical regression revealed that unemployment was a higher risk factor for depression than employment (OR 2.3 CI 1.1–4.8; $p < 0.05$). In this study there was no association between depression and age.

7.5. Suitability of the EST-Q2 screening scale depression subscale for screening depression in general practice

The CIDI interview diagnosed 1-month depressive episode in 162(15.3%) participants of sample II, while 300(28.4%) were screened depressive by EST-

Q2. Of the participants who were diagnosed with depressive episode, mild depression was diagnosed in 10%, moderate in 38% and severe in 52%. The EST-Q2 classified 18.8% of the subjects differently in comparison to CIDI (Table 10).

Table 10. Depression diagnosed by CIDI and EST-Q2

EST-Q2 \ CIDI	Negative n(%)	Positive n(%)	Total n(%)
Negative n(%)	728(68.8)	168(15.9)	896(85.7)
Positive n(%)	30(2.8)	132(12.5)	162(15.3)
Total n(%)	758(71.6)	300(28.4)	1058(100)

The 168(15.9%) persons who did not have depression by CIDI, but whom EST-Q2 screened as depressive, were classified as “false positive”. Thirty (2.8%) persons who were diagnosed to be depressive by CIDI, but were not depressive according to EST-Q2, were classified as “false negative”.

Table 11 present the results of sensitivity, specificity, false-negative rate, predictive values and LR for different cut-off points for one-month depression.

Table 11. Comparison of the test characteristics for the EST-Q2 at cut-off points >11, >10, >12

Screening instrument	Sensitivity	Specificity	FN	FP	PPV	NPV	Positive LR	Negative LR
EST-Q2>11	0.81	0.81	0.19	0.19	0.44	0.96	4.3	0.23
EST-Q2>10	0.86	0.77	0.13	0.23	0.4	0.97	3.7	0.18
EST-Q2>12	0.79	0.84	0.2	0.15	0.49	0.96	4.9	0.25

FN — false negative rate

FP — false positive rate

PPV — positive predictive value

NPV — negative predictive value

LR — likelihood ratio

The EST-Q2 had good specificity, sensitivity, positive predictive value and positive LR for the screening of depression at the present cut-off point >11. By decreasing cut-off by one point, the sensitivity and the false-negative rate improved, but the positive predictive value and the positive likelihood ratio decreased. By increasing cut-off by one point, the sensitivity decreased, while the specificity, the positive predictive value and the positive likelihood value improved.

7.6. Combination of symptoms allowing general practitioners to distinguish patients with depression from patients with other biomedical or psychosocial problems

To find out a combination of symptoms distinguishing depressive patients from healthy persons in the best way, two models were developed according to EST-Q2. Model 1 considered 8 most characteristic symptoms included in the EST-Q2 depression scale: feeling of sadness, loss of interest, feeling of worthlessness, self-accusation, thoughts of suicide, feeling lonely, hopelessness, impossible to enjoy things. Model 2 considered 17 symptoms included in the EST-Q2 depression scale plus excessive worrying about several different things, feeling so restless that it is hard to sit still, fatigue or loss of energy, diminished ability to think or concentrate, rest does not restore strength, being easily fatigued, difficulty in falling asleep, restless or disturbed sleep, waking up too early. The significance of the association between the symptoms of EST-Q2 identified and CIDI-identified episodes is presented in Table 12.

Table 12. Association between the symptoms of EST-Q2 and CIDI-identified depressive episode: logistic regression model 1 and model 2

Symptoms	Logistic regression model 1		Logistic regression model 2	
	Estimate	OR (95% CI)	Estimate	OR (95% CI)
Feeling of sadness	-0.46**	0.63 (0.46 to 0.86)	-0.50**	0.60 (0.45 to 0.82)
Loss of interest	-0.81**	0.45 (0.34 to 0.59)	-0.64**	0.52 (0.39 to 0.70)
Feeling of worthlessness	ns		-0.29**	0.75 (0.61 to 0.92)
Self-accusations	-0.33**	0.72 (0.58 to 0.90)	ns	
Feeling lonely	-0.22*	0.80 (0.65 to 0.98)	ns	
Impossible to enjoy things	-0.35**	0.70 (0.56 to 0.89)	-0.26*	0.77 (0.60 to 0.97)
Excessive worry about several different things	_____		-0.27*	0.76(0.60 to 0.97)
Rest does not restore strength	_____		-0.35**	0.70 (0.57 to 0.87)

* p<0.05

** p<0.01

ns – no significant

Out of the symptoms of Model 1, feelings of sadness, loss of interest, self-accusations, loneliness and inability for enjoyment were the best identifiers of depressive patients. In combination with feeling of sadness, feeling no interest or pleasure in things, feeling of worthlessness, impossibility to enjoy things, excessive worrying about several different things and rest does not restore strength were significantly associated with having depressive disorder in Model 2. The symptoms feeling of sadness, loss of interest and impossible to enjoy things were the identifiers of depressive patients in both models. The best identifier of depressive episode was loss of interest.

We compiled two new scales from the symptom combinations, which enabled us to distinguish between depressive and non-depressive persons on the basis of Model 1 and Model 2. The first scale, EST-QNew1, consists of the following symptoms: feeling of sadness, feeling no interest, self-accusations, feeling lonely and no enjoyment. The second scale, EST-QNew2, consists of the following symptoms: feeling of sadness, feeling no interest, worthlessness, no enjoyment, excessive worrying and rest does not restore strength. We examined the ability of both scales to screen depression at different cut-off points in comparison with the original EST-Q2 depression scale (Table 13).

Table 13. Comparison of the test characteristics of the two new models and EST-Q2 at the cut-off point >8 for EST-Qnew1 and at the cut-off point >11 for EST-Qnew2

Screening instruments	Cut-off point	Sensitivity	Specificity	FN	FP	PPV	NPV	Positive LR	Negative LR
EST-Q2 Depression Scale	>11	0.81	0.81	0.19	0.19	0.44	0.96	4.3	0.23
EST-Qnew1	>8	0.81	0.82	0.19	0.18	0.45	0.96	4.5	0.23
EST-Qnew2	>11	0.81	0.85	0.19	0.15	0.5	0.96	5.4	0.22

FN – false negative rate

FP – false positive rate

PPV – positive predictive value

NPV – negative predictive value

LR – likelihood ratio

The test characteristics of EST-QNew1 at the cut-off point >8 were comparable to those of EST-Q2. The sensitivity was the same as for EST-Q2, but the specificity increased from 0.81 point to 0.82 and FP and PPV improved by the order of 0.01 and positive LR improved by the order of 0.02.

The test characteristics of EST-QNew2 at the cut-off point >11 were better than those of EST-Q2 and EST-QNew1 at the cut-off point >8. The sensitivity of EST-Qnew2 did not change in comparison with that of EST-Q2, while the specificity increased from 0.81 to 0.85; FP, negative LR and PPV increased from 4.3 to 5.4; at the same time, none of the characteristics became worse. In 50% of the persons who were screened as depressive, depressive disorder had also been diagnosed by CIDI.

7.7. The preferences and rationale of family doctors in pharmacological treatment of depression

The FDs indicated selective serotonin reuptake inhibitors as their first-line treatment preference. The medication groups preferred by the FDs for treatment of depression were SSRI (69%), TCA (15%), SNRI (7%), RIMA (1%), NaSSA (1%), tranquilizers (5%) and antipsychotics (2%).

In the list of the first-line drugs noted by the FDs these particular medication groups were also preferred most frequently (Figure 3).

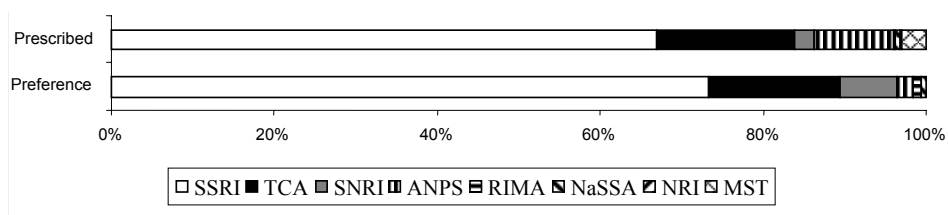


Figure 3. Comparison of preference and the classes of antidepressant drugs prescribed by family doctors

The first-line drug in the list of the FDs was Cipramil which was mentioned almost twice more often than the others. Cipramil was followed by Cipralex, Seroxat and Nycoflox which were noted with almost equal frequency. Among them Cipramil, Cipralex and Nycoflox were prescribed more often (Figure 4).

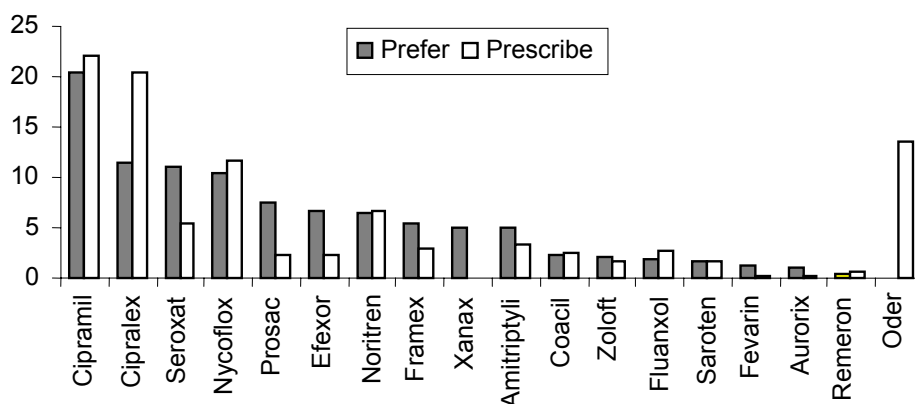


Figure 4. Preference and the drug prescribed by family doctors

The FDs prescribed also medicines, which they did not mention as their preference, these are presented in figure 3 under “Other”. This list includes antidepressants, antipsychotics, and mood stabilizers. The FDs did not mention mood stabilizers as their preference, which actually made up only 0.6% of the whole amount of the medicines prescribed by them.

To the question why they preferred these medicines, the FDs responded providing different reasons (Table 14).

Table 9. Rationale of the family doctors regarding preference of medications

Reasons	Example called by FDs
Effectiveness	Highly effective Highly effective for the elderly
Side effects	Good tolerance Few side effects Good for men
Active substance	Fast active substance Transient treatment
Ease of administration	Suitable state of medication Low dosage Low dosage for start
Incremental complaint	For panic and anxiety For bulimia For insomnia For chronic pain For patients with somatic complaints, for addicts
Price	Cheap
Other	More available information

The factors that influenced antidepressant selection were good effect, ease of administration, presence of specific clinical symptoms, presence of co-morbid psychiatric disorders and price of medicaments, which are also commonly listed in the literature (Gitlin 2002). In addition, the FDs considered speed of the effect, previous knowledge of effectiveness and ample information to be important.

7.8. Antidepressant prescribing patterns among the psychiatrists and the family doctors

Depression was diagnosed in 37 029 patients in 2003: in an outpatient setting by FDs in 19 521 cases and by psychiatrists in 13 444 cases. Altogether 70 039 psychotropic drug visits (drug visit was defined as a visit during which at least 1 drug was prescribed) were made, of which 44 125(63%) were made to FDs and 25 914(37 %) were made to psychiatrists. Of these visits 63 987(89%) were antidepressant drug visits, 5741(8%) were antipsychotic drug visits and 311(3%) were mood stabilizer drug visits. Altogether 80 911 medicines were prescribed, of which 71 486(88%) were antidepressants, 8769(11%) were antipsychotics and 656(1%) were mood stabilizers. Antidepressant drug visits and antipsychotic drug visits were made more often to FDs and mood stabilizer drug visits were made more often to the psychiatrists, while in both cases the prescribed medicines were the same (Table 15).

Table 15. Drug visits and drug prescribing patterns among the family doctors and the psychiatrists

Patterns	Drug visits n(%)			Prescribed drug n(%)		
	Total	FD	Psychiatrist	Total	FD	Psychiatrist
Antidepressants	63 987(100)	41 527(65)	22 460(35)	71 486(100)	46 158(65)	25 329(35)
Antipsychotics	5741(100)	3723(65)	2018(35)	8769(100)	5170(59)	3599(41)
Mood stabilizers	311(100)	132(42)	179(58)	656(100)	298(42)	358(58)

Altogether 25 410 patients with depression were treated in an outpatient setting during a year. Monotherapy was used for 24 313(95.7%) patients. Antidepressants were used in 88% of the cases, antipsychotics in 7.5% of the cases and mood stabilizers in 0.2% of the cases. Combined treatment was applied in 4.3% of the cases, while a combination of an antidepressant and an antipsychotic was common.

Most often the FDs prescribed SSRIs for treatment of depression; the second choice was TCA, while the drugs of the other groups were prescribed in less

than 3.5 % of the cases. The psychiatrists often prescribed the same classes of antidepressant drugs. In comparison with the psychiatrists, the FDs prescribed more SSRI and the psychiatrists prescribed more TC, SNRI, NaSSA, RIMA and NRI ($p=0.0001$) (Paper I, Table 2). The most frequently prescribed drugs were fluoxetine (SSRI), escitalopram (SSRI), citalopram (SSRI), paroxetine (SSRI) and nortriptylin (TCA). The FDs prescribed fluoxetine, escitalopram, citalopram and nortriptylin more often compared with the psychiatrists ($p=0.0001$) and the psychiatrists prescribed the other antidepressants more frequently compared with the FDs (Paper I, Table 3). Only in the case of prescribing amitriptyline there was no difference between the FDs and the psychiatrists. The psychiatrists also prescribed seldom used drugs more often (less than 1%) such as fluoxetine (SSRI), imipramine (TCA), moclobemide (RIMA), milnaciprane (SNRI) and reboxetine (NRI). The FDs and the psychiatrists prescribed 16 different antidepressants from the classes of antidepressant drugs with 28 different names. More frequently were prescribed Cipralex (escitalopram), Nycoflox (fluoxetine), Cipramil (citalopram) and Seroxat (paroxetine). The FDs and the psychiatrists prescribed similar antidepressants for treatment of depression.

8. DISCUSSION

Depressive disorders are a common problem in many countries (Satcher *et al* 2001, Meltzer *et al* 1995, Aluoja *et al* 2004), yet they are often not recognized in primary care (Katon *et al* 1992). Owing to the EU study PREDICT, data about the prevalence of depression among primary health care attendees are available (King *et al* 2006). In Estonia the psychiatrist was the person who treated depressive patients fifteen years ago. In 1991 training of FDs was started in Estonia, which changed medical service in primary care. Every patient is free to choose his/her FD (Maaroos 2004, Maaroos *et al* 2004). Usually the FD is the first person to see patients with depressive symptoms. However, as patients can visit the psychiatrist without referral, management of depression can be believed not to be the FDs task. It is therefore important to know how well the FD is prepared for the task of managing patients with depression symptoms.

Like in countries with different social and cultural backgrounds (Ralition *et al* 2000, Soykan *et al* 2003) in our study, most FDs considered depression management to be their task. The readiness of the FDs to deal with depression patients did not depend on the location or association of their practice, which is understandable as all practices in Estonia have the same features-patient lists and accessibility (Maaroos *et al* 2004).

It is highly promising that the motivating factors are evidently based on the FDs' sense of duty. FDs feel that depression is a highly prevalent condition and an important problem in primary care. They acknowledge the great need for its treatment and feel primary responsibility for their patients' treatment. FDs have also experienced that successful treatment of depression improves the patient's health as well as doctor-patient relationship. A study of the FDs consultation style in Estonia (Tähepõld *et al* 2003) showed the same approach: FDs helped patients with psychological problems more than patients expected. In agreement with other studies (Sleath *et al* 2002, Harman *et al* 2001), FDs in Estonia feel that patients have more trust in them than in an unknown specialist. According to our data and other authors opinions (Sleath *et al* 2002, Harman *et al* 2001), it is possible to conclude that in treating depression, FDs are mainly motivated by patient- and relationship-oriented factors.

One should bear in mind that there exist several factors hindering FDs' management of depression. The major issues are related to the FDs' time and knowledge resources as well as the patients' low compliance. Although the frequency of depression appeared as an important motivating factor, it was also mentioned as a problematic factor, as depressive patients increase the workload of FDs. Several studies have shown that 10–25% of patients who visit primary health care specialists; suffer from depression from time to time (Meltzer *et al* 1995, Goldberg *et al* 1992). One of the most disturbing factors for FDs in dealing with depressive patients is the short consultation time per patient. Although an average visit to the FD lasted 9.0 min the longest consultation

lasted 36.3 min in the case of a psychological problem (Tähepõld *et al* 2003). Longer visits of depressive patients to their FDs, compared with visits of other patients have been described by other authors (Sleath *et al* 2002, Harman *et al* 2001). Even the outcome of depression treatment is dependent on the consultation time (Ralition *et al* 2000). Evidently, ordinary consultation is too short for dealing with problems of mental health. The advantage of FDs is the opportunity after the first visit to reserve more time for consultation for patients with a psychological problem.

The studied FDs considered it important to have specialized knowledge and cooperation with other specialists. They wanted to be more trained in diagnosis and treatment of depression, which is consistent with results from other countries (Lecubier 2001, Simson *et al* 1999, Dowrick *et al* 2000). According to the FDs' opinions, some problems arise from patients' compliance. It is hard for patients to see the true reasons for their problems and to accept the diagnosis of depression, as was shown also by Ralition *et al* 2000.

Treatment of depression was considered to be the task of the FD, according to our study, and was associated with some problematic issues. Treatment is often time and resource consuming, patients tend to stop taking the prescribed medicine, or they do not procure it altogether; this finding was supported also by other authors (Paykel *et al* 1992). Treatment of depression should be complex and the efficacy of psychotherapy in the treatment in primary care is evident (Ward *et al* 2000). The FDs admitted also their insufficient skills in psychotherapy, lack of cooperation with psychiatrists and psychologists and low availability of psychotherapists. Psychiatric care and psychological care are concentrated into four major cities in Estonia. There is a shortage of psychologists and psychotherapists and most psychological service is not covered by health insurance.

An important evidence of the motivation of FDs to manage with patients with depression is the fact that the FDs considered continuous training still necessary, although most of them had passed advanced training in depression. For comparison, according to a study of Soykan, only the physicians who were interested in psychiatry had passed training in depression (Soykan *et al* 2003). It shows that our FDs recognize the need for dealing with the problem and are often engaged in it in their daily work.

The patients participating in the present survey visited their FD due to several acute or chronic problems, while depression itself happened seldom to be the reason for the visit. Yet in most depressive patients presenting the FD this problem is often masked by other complaints, or coexists with other diseases and conditions, as is noted also by other authors (Goodwin 2006, Saltman *et al* 2005). It has been shown that 81% of depressive patients visiting the FD have only somatic complaints and 56% also have a somatic disease (Lecubier 2001). In many cases neither the doctor nor the patient suspected depression and all attention was only given to the disease, which was the reason

for the visit. Studies of the FDs consultation carried out in Estonia have also indicated that in comparison with biomedical problems patients seldom bring out their psychological problems or expect them to be solved (Tähepõld *et al* 2003, Tähepõld *et al* 2006).

Up to a quarter of patients visiting their FD had depression during the past 6 months involving mostly severe or moderate depressive episode. Hence depression is even a more frequent problem than could be expected according to surveys performed elsewhere. Usually, in primary health care one-month prevalence of depression is estimated to be up to 5–10% (Wittchen *et al* 2002, Salokangas *et al* 1996, Paykel *et al* 1992). In comparison with the prevalence of depression among the patients of Estonian FDs, established with the same method as in other countries (Great Britain, the Netherlands, Slovenia, Spain and Portugal), higher prevalence was only found in Great Britain (Aluoja *et al* 2005). An interesting result of our study is the predominance of severe and moderate depressive episodes, while most previous surveys have found more of moderate and mild depression in primary health care (Hildebrandt *et al* 2003). A situation similar to ours seems to be in Germany where a recent survey found also predominantly heavy and moderate depression (Wittchen *et al* 2002).

Factors that promote depression are demographic indicators, among them marriage was associated with lower prevalence of depression only in the men, which was in concordance with other studies suggesting that marriage can be a protective factor against depression, coronary diseases, II type diabetes and risk behaviour (incurring accidents, smoking and abuse of alcohol) in men (Bebbington 1996, Ross *et al* 1990). Depression was more frequent in unemployed persons and in those who had hardships with financial subsistence. Thus the favourable processes taking place in the human development of the Estonian society should positively affect the prevalence of depression (<http://hdr.undp.org/>). At the same time, our study found association of depression with other factors, e.g. the number of negative life events in private life sphere. The same associations were stressed by other authors both among general population and in patients of family practitioners (Paykel *et al* 1982, Salokangas *et al* 1998). However, it is not clear if negative life events cause depression, or if persons who tend to be depressive boost their negative life events (Harkness *et al* 1999).

The Position of FDs in a health care system allows them to screen depression among their attendees. Early detection of depression via screening is the priority task in the whole management of depression. Screening instruments are not the means of diagnosing but can be the first step in identifying depressive disorders, which is especially important in primary health care. The present study showed that many of our FDs use screening tests, preferring EST-Q2 in their daily work. The number of items in different screening measures varies, and it has been found that use of shorter screening measures may be as effective as use of longer ones (Robins *et al* 1988).

Our study is the first to compare CIDI and EST-Q2, allowing to evaluate the specificity and sensitivity of these screening instruments. We showed that EST-Q2, developed on patients of the psychiatric ward, is applicable to primary care attendees. Our study proved that the sensitivity and specificity of the EST-Q2 depression subscale is good and comparable to the corresponding characteristics of other self-rate instruments (Henkel *et al* 2004, Dutton *et al* 2004, Arroll *et al* 2005, Robins *et al* 1988). The cut-off point used in EST-Q2 was tested on primary care users by raising it, but no significant improvement of the sensitivity or the specificity was achieved. It was found that although the sensitivity can be further improved by lowering the cut-off point, this brings about lowering of the specificity, yields too many false positive results and reduces the positive predictive value. Some patients with “false-positive” results on screening may have dystymia or some anxiety disorder with concomitant depressive symptoms instead of major depression (Robins *et al* 1988). Some authors propose, if the predictive value and the likelihood ratio are considered more important, a higher cut-off point can be used, which yields the highest positive predictive value (Peters *et al* 1995, Arroll *et al* 2005).

The efficacy of screening scales may depend on the included symptoms. Most self-rate depression screening scales attempt to assess all symptoms used in the diagnostic criteria. Nevertheless, the value of individual symptoms in screening of depression is not clear.

In our study we tried to identify the symptoms, which help FDs to discriminate between patients with and without depressive disorder and, as a result, we developed two new screening scales. The main known symptoms of depression are lowered mood, loss of interest and no enjoyment and reduced energy, accompanied by other symptoms like lower concentration and attention, reduced self-esteem, feeling of guilt and worthlessness, pessimism about the future, suicidality and disturbed sleep and appetite.

First, we tried to identify which combination of affective and cognitive symptoms of EST-Q2 depression subscales discriminate best CIDI-identified depression (WHO 1992). The typical symptoms of depression, *sad mood* and *loss of interest* appeared to be the most significant. The best identifier of depressive episode was *loss of interest*. This is supported by a study of screening depression using two questions, where loss of interest yielded the least number of false positive results and differentiated between depressive persons and non-depressive ones best (Zung 1965). The other indicator of anhedonia, *impossibility to enjoy things*, was also significantly related to depression. This finding stresses the importance of anhedonia in recognizing depression and supports the idea that while a high negative affect can be general to several negative mood states, lack of a positive affect is specific to depression (Clark *et al* 1991). Among the affective-cognitive symptoms of depression, also self-accusation and loneliness were significantly related to CIDI-identified depression. When we elaborated a new self-rate scale with 5

items using the symptoms significantly predicting depression (EST-Qnew1), it appeared to screen depression as well as the existing EST-Q2. Like other studies (Whooley *et al* 1997), this shows that reduction in the number of items in a questionnaire does not necessarily diminish its screening properties but a shorter version can be easier for the patient to complete.

Second, when we added somatic and behavioural self-rate symptoms to the model, the set of symptoms discriminating depression changed. In this combination, in addition to *sad mood*, *loss of interest* and *impossibility of enjoyment*, also *feeling of worthlessness*, *worrying* and *rest does not restore strength* became significant. Though excessive worrying is a typical symptom of generalized anxiety (GAD), our results suggest that it might be important in identifying primary care patients with depression. Lately the role of repetitive negative cognitions, like rumination and worry in maintaining mood and anxiety disorders have been highlighted (Papageoriou *et al* 2003). This is supported by other studies which show that the score of worrying is equally high in GAD and major depression, and that pathological worry is strongly related to depression (Starcevic *et al* 1995, Muris *et al* 2005).

The symptom of fatigue, which it is usually omitted from depression screening scales for primary care because it can be a sign of somatic illness (Beck *et al* 1997, Zigmond *et al* 1983), proved also important in distinguishing depressive patients. Our study showed that even in primary care patients' fatigue can be a significant identifier of depressive disorder and should be included in a self-report questionnaire, as is the case with PHQ-9 (Kroenke *et al* 2002). Some specific aspect of fatigue, like *fatigue not being relieved after rest*, acquires significance as a characteristic of depression.

On basis of the second combination of symptoms the new scale EST-Qnew2 was developed. It yielded a better result in screening depression than EST-Q2 or EST-Qnew1. Its specificity, FP, PPV and positive LR improved significantly, while the sensitivity and FN remained the same. The screening properties of EST-Qnew2 are equal or excel those of common self-administered scales (Henkel *et al* 2004).

Reporting preferences for drug use for treatment of depression, the FDs mentioned most often the same drugs that they actually prescribed. The reasons why they prescribed these drugs mostly coincided with the reasons presented in the literature (Cohen 1997, Zimmermann *et al* 2004, Gitlin 2002). In a handbook of depression the presented factors of a rational selection of a specific antidepressant were issues relating to complications, side effect profile, ease of administration, safety, history of past response, depressive subtype, neurotransmitter specificity, family history of response, blood level considerations and cost (Gitlin 2002). Different surveys indicate, in addition to presence of comorbid psychiatric disorders, also avoidance of specific side effects, drug-drug interactions and presence of specific clinical symptoms (Zimmermann *et al* 2004, Cohen 1997). In addition, in the present study FDs

considered the speed of achieving the effect, past experience with efficacy and ample information about the drug as important.

The FDs in our study preferred mainly antidepressants in management of depression while SSRIs were their first-line treatment preference. A similar result was obtained in a survey of psychiatrists' drug preferences (Dording *et al* 2002). The less mentioned drugs in preferences were TCA, NSRI and tranquillizers, while antipsychotics as RIMA, NaSSA formed a small part. Our FDs preferred citalopram, escitalopram, paroxetine and fluoxetine. A similar result was obtained from an opinion survey performed on a sample of French psychiatrists in 1999 among which 63.5% mentioned paroxetine as the first-line drug and followed by fluoxetine with 54.5% (Depont *et al* 2003). Escitalopram noted as the second-line drug by our FDs was not used at that time. Evidence from randomized clinical trials suggests that escitalopram is superior to placebo in short-term treatment of depression (Burke *et al* 2002), with efficacy and tolerability comparable to those of other antidepressants including venlafaxine (Bielski *et al* 2004, Montgomery *et al* 2004) and citalopram (Burke *et al* 2002, Lepola *et al* 2004).

Regarding psychopharmacological drug visits made by patients to their FDs or psychiatrists, antidepressant visits accounted for the largest share (89%). Antipsychotics and mood stabilizers were used seldom as, according to general consensus, they are largely prescribed in specific situations when dealing with melancholic, atypical or psychotic depression, and it is not important to use these drugs as first aid in depression (Isometsä 2000, Pincus *et al* 1998). There were no significant differences in prescribing antipsychotics among the FDs and the psychiatrists. Similar trends in use of drugs have been revealed in other surveys as well, where depression was treated with antidepressants in 60% of cases and with antipsychotics and mood stabilizers in a fewer cases (Pincus *et al* 1998, Ernst *et al* 2006).

Of all antidepressant visits 65% were made to FDs, which shows that patients trust their FDs in treatment of their depression. Surveys on patient satisfaction with the services provided by their FD, carried out in Estonia show that patients appreciate highly the professionalism and effectiveness of their FDs (Põlluste *et al* 2004). Similar findings have been reported from other surveys where 65% of persons with depression appreciate highly or very highly FDs skills and knowledge to treat depression (Schwenk *et al* 2004). It is therefore not surprising that a large number of drug visits are made to FDs and the number has been increasing from year to year (Pincus *et al* 1998, Harman *et al* 2003).

Of the antidepressants 65% were prescribed by FDs, which indicated that a large number of patients with depression are treated by FDs. Our results are consistent with those of a survey from Australia where FDs prescribed 86% of the drugs to treat depression (McManus *et al* 2003). FDs mostly used SSRIs to treat depression, followed by TCA-s, while the other antidepressant drugs

where altogether prescribed in less than 3.5% of cases. Similar results have been obtained from other surveys carried out among FDs and psychiatrists (Wilson *et al* 2003, Petersen *et al* 2002, Depont *et al* 2003). Use of mainly the SSRI group of drugs by FDs to treat depression is in accordance with depression guidelines (Depression Guideline Panel 1993). The advantage of the SSRIs over other drugs is ease and safety of use; the therapeutic dose is often achieved with administering only one pill, the profile of the side effects is lower and there is no need to take blood tests to evaluate the concentration of the drug in the blood (Gitlin 2002). A survey on the use of drugs clearly showed that FDs prescribed the SSRI group of drugs always in therapeutic daily doses, which they did not do in the case of drugs from the TCA and other groups. Psychiatrists, on the other hand, used the TCA group of drugs in bigger doses compared with FDs (McManus *et al* 2003). It has also been shown that patients tend to discontinue treatment with TCAs more often than treatment with SSRIs (Katon *et al* 1992), which may indicate that taking SSRIs has more often a positive effect in treatment of depression.

Regarding antidepressants, both the FDs and the psychiatrists prescribed fluoxetine and escitalopram in most cases. However, there were significant differences in the prescribed medicines regarding active agents. Regarding less used drugs the psychiatrists prescribed them more often than the FDs. The drugs preferred by the FDs belong to the SSRI group except for one drug from the TCA group. This demonstrates once more that the FDs used the SSRI group of drugs more often and more liberally. The FDs preferred drug from the TCA group to treat geriatric patients. Similar finding from other studies show that management of depression in the elderly may be conservative owing to which older antidepressants may be over-prescribed (Dearman *et al* 2006).

The most frequently prescribed antidepressants were preferred for several good reasons: good tolerance, good effect and few side effects. A similar finding was obtained in an opinion-survey among psychiatrists where tolerability of the drug appeared important in the choice of the antidepressant (Depont *et al* 2003). The above drugs occupied the first place regarding preference, as reported also by FDs.

The limitation of the study

The limitation of the study was the fact that only 41% of the practicing FDs agreed to take part. However, as sex and employment characteristics of the respondents corresponded to those of the FDs in general, our results should reflect the real situation regarding the studied problem.

9. CONCLUSIONS

1. Family doctors are ready and feel motivation to manage patients with depressive complaints, as depression is a frequent important problem in primary care in Estonia. Motivation for dealing with the patients' psychological problems is supported by the family doctors' wish to improve the patients' health as well as doctor-patient relationship. Family doctors acknowledge the great need for treatment of patients with depression. Problematic issues for family doctors are high prevalence of depression among family doctors' attendees, high cost of management of depression, patients' compliance with diagnosis and treatment and physicians' inadequate time resources. Family doctors would like to receive additional training in specific skills for management of depressive patients. Also they consider good cooperation with the psychiatrist and the psychologist important in management of patients with depression.
2. One-month depressive episode occurred in every sixth family doctor's attendee and six-month depressive episode occurred in every fourth family doctor's attendee. Moderate depressive episode and severe depressive episode were more prevalent compared with mild depression. Depression is more prevalent among Estonian primary care users than expected.
3. Depression was more related to female gender, unemployment, poor financial coping, and with having more than two negative incidents during the past six months. Also, depression was more prevalent among the patients who reported having some long-term illness or disability as well as among those who estimated their general health as poor.
4. The EST-Q2 is the most commonly used screening instrument among Estonian family doctors for screening of depression. Testing of different cut-off points for its sensitivity and specificity shows that the cut-off point >11 was the most appropriate. However, although EST-Q2 has good sensitivity and specificity, should be taken into account that it yields false positive results among family doctors' attendees. The screening instrument EST-Q2, created on the basis of population and psychiatric patients, is suitable for use among primary care users.
5. Reduction in the number of items in the EST-Q2 depression scale and adding of some somatic and behavioural symptoms plus one anxiety symptom improved the screening properties of the instrument, which makes its completion easier and quicker. The best combination of symptoms allowing family doctors to distinguish patients with depression from patients with other biomedical or psychosocial problems are ***loss of interest, sad mood, strength not restored by resting, feeling of worthlessness, excessive worry and incapability for enjoyment***. On the basis of these symptoms, a new screening instrument, EST-Qnew2, was developed for

primary health care compared with EST-Q2 has the same sensitivity but higher specificity.

6. The drug preference and the actual drug prescription of the family doctors overlapped. The preferences in drug prescription by the family doctors are assessed as rational drug selection in dealing with depression.
7. The family doctors prescribed mainly antidepressants for treatment of depression. Among the antidepressants, the family doctors prescribed mostly SSRIs. Estonian family doctors treated depression in accordance with internationally acknowledged treatment guidelines.

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11. APPENDICES

11.1. Questionnaire for family doctors

Appendix 1

1. Personal data:
Age _____
Sex _____
Length of service as a physician _____
Length of service as a family doctor _____
2. Type of practice: Solo ____ Group ____
3. Location: Rural ____ Urban ____
4. What problems do you meet in your everyday work with depressive patients?
5. Is management of depression your daily work? Yes ____ No ____
6. Are you ready to deal with depressive patients? Yes ____ No ____
7. If yes, what is your motivation to deal with depressive patients?
8. Do you deal with depression? Yes ____ No ____
9. Do you have sufficient knowledge to deal with depression?
10. Do you need further training to deal with depression? Yes ____ No ____
11. Do you use any screening instruments for screening of depression? Yes ____
No ____
12. If yes, what kind of screening instruments?
13. What medicines do you prefer for treatment of depression according to name?
14. Why do you prefer these medicines?

11.2. Questionnaire for patients

Appendix 2

Emotional State Questionnaire (EST-Q2)

Below are given some problems that people may have. Please indicate how often each problem has bothered you during the past month and mark one of the boxes to the right that best corresponds to your problems.

	Not at all	Sel-dom	Some-times	Often	All the time
1. Feelings of sadness	0	1	2	3	4
2. Feeling no interest or pleasure in things	0	1	2	3	4
3. Feelings of worthlessness	0	1	2	3	4
4. Self-accusations	0	1	2	3	4
5. Recurrent thoughts of death or suicide	0	1	2	3	4
6. Feeling lonely	0	1	2	3	4
7. Hopelessness about the future	0	1	2	3	4
8. Impossible to enjoy things	0	1	2	3	4
9. Feeling easily irritated or annoyed	0	1	2	3	4
10. Feeling anxious or fearful	0	1	2	3	4
11. Tension or inability to relax	0	1	2	3	4
12. Excessive worry about several different things	0	1	2	3	4
13. Feeling so restless that it is hard to sit still	0	1	2	3	4
14. Easily startled	0	1	2	3	4
15. Sudden attacks of panic with palpitations, shortness of breath, faintness or other frightening bodily sensations	0	1	2	3	4
16. Fear of being outside home alone	0	1	2	3	4
17. Feeling afraid in streets or open places	0	1	2	3	4
18. Fear of fainting in public	0	1	2	3	4
19. Feeling afraid of travelling by bus, train or car	0	1	2	3	4
20. Afraid to be the centre of attention	0	1	2	3	4
21. Fear of interaction with strangers	0	1	2	3	4
22. Fatigue or loss of energy	0	1	2	3	4
23. Diminished ability to think or concentrate	0	1	2	3	4
24. Rest does not restore strength	0	1	2	3	4
25. Being easily fatigued	0	1	2	3	4
26. Difficulty falling asleep	0	1	2	3	4
27. Restless or disturbed sleep	0	1	2	3	4
28. Waking up too early	0	1	2	3	4

SUMMARY IN ESTONIAN

Depressiooni käsitlus peremeditsiinis

Depressioon on üks sagedaseim psühhiaatriline häire esmatasandi arstiabi kasutajate seas. Euroopas esineb depressiooni kuni 10%-l elanikkonnast ja 25%-l esmatasandi arstiabi kasutajatest esineb depressiooni sümptomeid. Levimusnäitajad erinevad paikkonniti kaks kuni kolm korda sarnase metoodika kasutamisel. Eestis läbi viidud uuringu alusel kannatab 11.1% täiskasvanud elanikkonnast depressiivsete sümptomite all. Krooniliste haiguste seas esmatasand arstias on ta oma sageduselt teisel kohal hüpertensiooni järel ja enamus patsiente (73%) kellel on diagnoositud depressioon, kogevad rohkem kui ühe depressiivse episoodi oma eluea jooksul. Töövõimetus põhjustajana prognoositakse depressiooni maailmas aastaks 2020 teiseks südame-veresoonkonna haiguste järel. Depressioon tekib bioloogiliste, sotsiaalsete ja psühholoogiliste tegurite koosmõjus. Universaalseteks riskiteguriteks peetakse naissugu ja madalat sotsiaal-majanduslikku staatust. Veel seostatakse depressiooni vähese sissetuleku, madala haridustaseme, töötuse, negatiivsete elusündmuste ja kehalise tervise probleemidega. Eestis on leitud, et depressioon seostub oluliselt halvema subjektiivse sotsiaalse funktsioneerimisega. Vaatamata sagedasele esinemisele, jääb uuringute alusel enamik depressiivsete häiretega isikutest endiselt õige diagnoosita ja adekvaatse ravita. Esmatasandi arstid diagnoosivad ligikaudu ainult 25–50%-l depressiooni all kannatajatest depressiivset häiret. Samas on need patsiendid perearstidele suuremaks probleemiks, kui somaatilisi haigusi põdevad patsiendid. Depressiooni diagnoosi püstitamine osutub sageli keerukaks nõudes eelnevalt palju kliinilisi uuringuid ja aega. Depressiooni diagnoosimiseks olevad struktureeritud psühhiaatrilised intervjuud on liiga palju aega nõudvad ja ei ole kasutatavad perearsti igapäevases töös. Kasutusel on küll mitmeid enesehinnangulisi skriining instrumente, nagu Becki Depressiooni Skaala, Zungi Enesehinnanguline Depressiooni skaala ning Üldine Tervise Küsimustik, mis erinevad küsimuste arvu ja erinevate sümptomite poolest, kuid need ei diagnoosi depressiooni. Eestis on välja töötatud on populatsiooni ja psühhiaatriliste patsientide uuringu alusel Emotsionaalse Enesehinnangu Küsimustik. Depressiooni ravi kestab kaua ja suur osa patsientidest katkestab selle. Enam kui 60 aastat kasutatakse depressiooni raviks antidepressante ning suure muudatuse tõi uue ravimi rühma — selektiivsete serotoniini tagasihaarde inhibiitorite kasutusele võtmine. Perearstide võime diagnoosida ja ravida depressiooni on seotud tema teadmistega ja sooviga oma teadmisi täiendada. Vähe on uuritud perearstide hoiakuid ja arvamust depressiooniga seonduvate probleemide kohta.

Eestis on patsiendi esmase kontakti isik perearst, samas on võimalik pöörduda psühhiaatri poole ilma saatekirjata. Depressiooni ravi määravad patsientidele Eestis valdavalt psühhiaatrid ja perearstid. Samas ei ole Eestis uuritud

perearstide arvamust depressiooni probleemidega seonduva kohta ja ei ole tehtud ühtegi struktureeritud diagnostilisel intervjuul põhinevat meeleoluhäirete ning depressiooni uuringut. Pole teada, depressiivsete häirete esinemissagedust perearsti poole pöörduvate patsientide seas. Ei ole teada, millised sümptomid aitavad kõige paremini perearstidel eristada depressiooni põdevaid patsiente teiste psüühiliste ja tervise probleemidega patsientidest. Nende teadmiste oamine aitaks planeerida diagnostilisi ja raviressursse, juhtida perearstide tähelepanu depressiivse häirega patsiendile, tundes riskirühmi, hoida mõnel juhul ära depressiooni vallandumise ning ennetada depressiooniepisoodide kordumist ja häire krooniliseks muutumist.

Käesolev uurimistöo on läbi viidud koostöös üle-euroroopalise depressiooni uurimisprojektiga PREDICT, mille tausta uuringuks viidi läbi perearstide arvamusuuring. PREDICT uuring võimaldas läbi viia ulatusliku perearsti patsientide intervjuerimise ravusvahelise diagnostilise intervjuu (*Composite International Diagnostic Interview*, CIDI) depressiooni alaosa, uurida depressiooni riskidegurite seost ja esinemist selleks uuringuks välja töötatud riskitegurite küsimustikuga. Sellele uuringule lisasime Emotsionaalse Enesetunde Küsimustiku testimaks viimase kasutatavust esmatasandi meditsiinis.

Uurimistöo eesmärgid

1. Uurida perearstide valmisolekut, seda motiveerivaid tegureid, probleeme ja vajadusi tegelemaks depressiooni sümptome omavate patsientidega.
2. Hinnata depressiooni esinemissagedust perearsti poole pöörduvate patsientide seas.
3. Analüüsida depressiooni seoseid sotsiaaldemograafilise tausta, elusündmuste ja tervisehinnanguga perearsti poole pöörduvatel patsientidel.
4. Testida emotsionaalse enesehinnangu küsimustiku – EEK-2 kasutatavust perearsti patsientide seas depressiooni skriinimiseks.
5. Leida kombinatsioon sümptomitest, mis kõige paremini aitab perearstidel eristada depressiooni põdevaid patsiente teiste probleemidega patsientidest.
6. Välja selgitada perearstide ravimi eelistus ja selle põhjused depressiooni raviks.
7. Teada saada milliseid ravimeid perearstid patsientidele määrasid depressiooni raviks.

Uuritavad ja meetodid

Teada saamiseks perearstide valmisolekut tegelemaks depressiivseid häireid omavate patsientidega ja sellega seonduvat motivatsiooni, probleeme ja vajadusi viidi läbi 2002 aasta sügisel arvamusuuring, milles osales 205 praksist omavat perearsti kutsega perearsti Eesti erinevatest paikadest. Perearstide poolt

täidetud küsimustikku analüüsiti sagedusjaotus tabelitega ja kvalitatiivse temaatilise analüüsiga.

Uuringusse hõlmati 1370 järjestikust 18–75 aastat patsienti 23 perearsti (15 maal, 8 linnas) praksisest, sõltumata pöördumise põhjusest järgneva 2–3 kuu jooksul. Neist osales 1100 patsienti. Uuringusse ei võetud piiratud liikumis ja teovõimega, raske somaatilise või psüühilise haigusega patsiente, uuringus osalemine eeldas eesti keele oskust.

Depressiooni esinemissageduse hindamiseks ja seoste uurimiseks sotsiaal-demograafilise tausta, elusündmuste ning tervisehinnanguga, viidi läbi prospektiivne uuring, milles osales korrektselt CIDI ja riskiküsimustiku täitnud 1094 patsienti. Depressiooni ja taustategurite seose olulisust hinnati χ^2 -testiga, seose iseloomu täpsustati logistilise regressioonanalüüsi abil ja arvutati šansside suhe.

EEK-2 kasutatavuste hindamiseks perearsti patsientidel ja kõige parema sümptomite kombinatsiooni leidmiseks, mis aitaksid perearstil välja sõeluda depressiivseid patsiente, viidi läbi prospektiivne uuring 1058 patsiendiga, kellel oli korrektselt täidetud CIDI ja EEK-2. Võrdluseks kasutati neliktabelid, arvutati välja EEK-2 tundlikkus, spetsiifilisus, ennustatav prognoosiväärtus ja haiguse esinemise tõenäosus. Kõige parema sümptomite kombinatsiooni välja selgitamiseks kasutati astmelist logistilist regressiooni.

Perearstide ravimite eelistuse ja selle põhjuste välja selgitamiseks depressiooni ravis, saadi andmed arvamusuuringust, mis sisaldas vastavaid küsimusi. Eelistuse hindamiseks liideti ravimi nimetamise korrad, eelistuse põhjuseid analüüsiti sisuanalüüsi meetodit.

Teadu saamaks, milliseid ravimeid määrasid perearstid ja psühhiaatrid depressiooni raviks, küsiti andmed Eesti Haigekassast vastavalt rahvusvahelise haiguste klassifikatsiooni-10 diagnoosi koodide F23 ja F33 järgi 2003 aastal. Määratud ravimite tulemuste analüüsimisel kasutati sagedusjaotuse tabeleid. Seoste statistilist olulisust hinnati hii-ruut-testiga.

Uurimistöö peamised tulemused

Küsimustikule vastanud perearstidest 185(90%) pidasid depressiivseid häireid omavate patsientidega tegelemist oma kompetentsi kuuluvaks, 180(88%) on valmis tegelema selliste patsientidega. Perearstide motiveerivad tegurid tegelemaks depressiivsete patsientidega, jagasime viide suurde rühma. Nendeks olid: depressiooni sage esinemine esmatasandi meditsiinis; perearstide missjooni-tunne – soov ja lootus aidata oma patsiente; positiivne ravi tulemus – paraneb koostöö patsiendiga; perearstide eelised – perearsti konsultatsioonile pääseb kergemini, ta teab omapatsiendi terviseprobleeme paremini võrreldes psühhiaatriga; patsientide mugavus – sageli patsiendid ei soovi konsulteerida psühhiaatriga, voodihaigel patsiendil ei ole võimelik saada psühhiaatri konsultatsiooni. Depressiivse patsiendiga seonduvad probleemid jagasime nelja rühma. Pea-

miseks probleemiks, nagu ka motivatsiooniks, oli depressiooni sage esinemine. Teisteks probleemiks olid depressiooni ravimite kõrge hind, patsientide soovimatus depressiooni diagnoosi omaks võtta ja järgida talle määratud pikaajalist ravi ning perearstide ebapiisavad võimalused ja psühhiaatria alased oskused. Perearstid soovisid paremat koostööd psühhiaatrite ja psühholoogidega, planeerida rohkem aega depressiooni probleemidega patsientidele ning 181(88%) perearstidest soovis täiendkoolitust.

Rahvusvahelise haiguste klassifikatsiooni-10 diagnostilistele kriteeriumitele vastavalt esines depressiooni episood 6 kuu jooksul 258(23.6%) ja viimasel kuul 169(15.4%) perearsti külastanud patsiendil. Kuue kuu depressiooni episood jagunes vastavalt raskusastmetele võrdselt 43% raskeks ja keskmiseks ning kergeks 14%. Kergelt depressiooni esines meestel võrreldes naistega rohkem ($\chi^2 = 12.13$; $p < 0.001$).

Depressioon esines sagedamini naistel, madalama haridustasemega isikutel, töötutel, madalama majandusliku toimetulekuga isikutel, madalama enesehinnanguga ja puudega isikutel ja neil, kellel eelneva 6 kuu jooksul oli läbi elatud mõni negatiivne elusündmus. Ei olnud seost vanuse ja depressiooni vahel ja abielulise staatuse vahel. Võrreldes meeste ja naiste abielulisust ja depressiooni, selgus, et naistel ei esine mingit seost, küll aga meestel, kes ei olnud abielus, esines depressiooni rohkem.

CIDI diagnoosis viimase kuu jooksul depressiooni episoodi 162(15.3%), EEK-2 liigitas depressiivseks 300(28.4%) uuringus osalejat. Rasket depressiooni episoodi esines 52%-l, keskmist 38%-l ja kergelt 10%-l. Võrreldes CIDI-ga liigitas EEK-2 vale negatiivseks 2.8% ja vale positiivseks 15.9% uuringus osalenud patsientidest. EEK-2 tundlikkus ja spetsiifilisus oli 0.81 äralõikepunkti >11 juures. Äralõikepunkti langetamine 1 võrra parandas tundlikkust, halvenes aga spetsiifilisus ja äralõikepunkti tõstmisel oli vastupidine efekt.

Sümptomite olulisuse hindamisel osutusid EEK-2 depressiooni skaala sümptomite oluliseks kurvameelsus, huvi kadumine, enesesüüdistused, üksildustunne ja võimetus rõõmu tunda. Selle sümptomite kombinatsiooni tundlikkus oli 0.81 ja spetsiifilisus 0.82 kõige optimaalsema äralõikepunkti >8 juures ja me nimetasime ta EEK-uus1. EEK-2 depressiooni skaala sümptomitele somaatiliste, käitumulike ja ärevuse sümptomite lisamisel osustusis kõige olulisemateks sümptomid: kurvameelsus, huvi kadumine, alaväärsustunne, võimetus rõõmu tunda, liigne muretsemine paljude asjade pärast ja puhkamine ei taasta jõudu, mille kombinatsiooni nimetasime EEK-uus2. Uue kombinatsiooni tundlikkus kõige optimaalsema äralõikepunkti >11 juures ei muutunud võrreldes EEK-2-ga, paranes spetsiifilisus 0.85-le ning teised testi statistilised näitajad, mille tulemusena vähenes valepositiivsete arv.

Perearstid nimetasid depressiooni ravis oma esmase valiku preparaadiks SSRI rühm kuuluvaid ravimeid. Eelistuse moodustasid SSRI (69%), TCA (15%), SNRI (7%), RIMA (1%), NaSSA (1%), trankvilisaatorid (5%) ja antipsühhootikumid (2%). Perearstide tegelik ravimite määramine ühtis nende

eelistustega. Eelistuste põhjustena nimetati ravimi efektiivsust, kõrvaltoimete vähesust, toime aega, manustamisviisi ja lihtsust, kaasuvaid kaebusi, ravimi hinda ja teadmisi ravimi omaduste kohta.

Perearstide poolt diagnoositi depressiooni 19 521 isikul 37 029-st 2003 aastal. Depressiooni raviks määratud ravimitest 88% moodustasid antidepressandid, milledest 65% oli määratud perearstide poolt. Antipsühhootikume määrati 1% ravimitest ja meeleolu stabilisaatoreid veel vähem. Perearstid määrasid antidepressantidest SSRI rühma ravimeid 76.8%, TCA rühma ravimeid 19.3% ja teisi ravimrühmi kokku vähem kui 3.5%.

Järeldused

1. Perearstid on valmis tegelema depressiivseid häireid omavate patsientidega ja nad on selleks piisavalt motiveeritud kuna depressioon on oluline ja sage probleem Eesti esmatasandi meditsiinis. Perearste motiveerib soov aidata oma patsiente teades nende teisi haigusi ja probleeme, ning positiivse ravi tulemusena suureneb patsientide usaldus oma arsti vastu veelgi. Peamisteks probleemideks perearstidele seoses depressiooniga on selle sage esinemine patsientide seas, ravi kallidus, patsientide soovimatus diagnoosi omaks võtta ning nende ravi soostumus ja piiratud ajalimiit patsiendi konsultatsiooniks. Selleks, et paremini ravida depressiooni põdevaid patsiente, soovivad perearstid rohkem spetsiifilist täiendõpet ja paremini planeerida aega depressiooni probleemidega patsiendi vastuvõtuks. Oluliseks peavad perearstid psühhiaatrite ja psühholoogidega koostöö paranemist.
2. Rahvusvahelise Haiguste Klassifikatsiooni-10 diagnostilistele kriteeriumitele vastav depressiooniepisood esines viimasel kuul igal kuuendal ja eelneva 6 kuu jooksul igal neljandal perearsti külastanud patsiendil. Keskmist ja rasket depressiooni episoodi esines rohkem kui kerget depressiooni episoodi. Eestis esines depressiooni perearsti külastavate patsientide seas rohkem, kui oli oodata, tuginedes varasematele uuringutele.
3. Depressiooni esinemine seondus sagedamini naissooga, töötusega, halvema majandusliku olukorraga ja suurema hulga negatiivsete elusündmuste esinemisega viimase kuue kuu jooksul. Samuti oli depressioon sagedasem kroonilisi haigusi põdevata patsientide seas, invaliididel ja neil, kes pidasid oma tervislikku seisundit halvaks.
4. Emotsionaalse enesehinnangu küsimustik – EEK-2 on kõige sagedamini kasutatav depressiooni skriining instrument Eesti perearstide seas. Kuigi EEK-2 omab head tundlikkust ja spetsiifilisust vastavalt tunnustatud skriinig instrumentide parameetritele, liigitas ta suure hulga tervetest patsientidest haigeteks e. valepositiivseteks. Testides tulemuse parandamiseks erinevaid äralõikepunkte, leidsime, et praegu kasutatav äralõikepunkt >11 annab kõige parema tulemuse testi erinevate näitajate seoses. Skriining instrument EEK-

- 2, mis on välja töötatud psühhiaatriliste patsientide ja populatsiooni baasil, on kasutatav esmatasandi arstiabis.
5. Kõige parema sümptomite kombinatsiooni eristamiseks depressiivseid patsiente teiste haiguslike probleemidega patsientidest, saime vähendada EEK-2 depressiooni skaala sümptome ja lisades somaatilisi ja käitumuslikke sümptome ning ärevusega seotud sümptomi, muutes sellega küsimustiku lühemaks ja lihtsamaks. Selleks sümptomite kombinatsiooniks osutus: ***huvi kadumine, kurvameelsus, puhkamine ei taasta jõudu, alaväärsustunne, liigne muretsemine paljude asjade pärast ja võimetus rõõmu tunda***. Nende sümptomite baasil tegime uue skriining instrumendi esmatasandi arstiabi jaoks, EEK-uus2, mille tundlikkus võrreldes EEK-2-ga jäi samaks, paranes aga pstesiifilisus.
 6. Perearstide ravimite eelistus ja ravimite tegelik valik depressiooni raviks ühtisid. Perearstide ravimite valiku põhjused olid samad, mis on üldtunnustatud ravimite selektsiooni faktorid depressiooni ravis.
 7. Perearstid määrasid depressiooni raviks peamiselt antidepressante ning nende hulgast kõige sagedamini selektiivsete serotoniini tagasihaarde inhibiitorite rühma kuuluvaid ravimeid. Eesti perearstid ravivad depressiooni kooskõlas depressiooni rahvusvaheliste ravijuhistega.

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