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# What is the translation of the Hopkins Symptom Checklist in 25 items into Croatian? A Delphi consensus procedure for forward-backward translation

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Marine Dargère. What is the translation of the Hopkins Symptom Checklist in 25 items into Croatian? A Delphi consensus procedure for forward-backward translation. Human health and pathology. 2014. dumas-01110725

**HAL Id: dumas-01110725**

**<https://dumas.ccsd.cnrs.fr/dumas-01110725>**

Submitted on 2 Feb 2015

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**UNIVERSITE DE BREST - BRETAGNE OCCIDENTALE**  
**Faculté de Médecine & des Sciences de la Santé**

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ANNÉE 2014

N°

**THÈSE D'EXERCICE DE DOCTORAT EN MÉDECINE**  
**SPÉCIALITÉ MÉDECINE GÉNÉRALE**

Par

**Mademoiselle DARGÈRE Marine**

**Née le 14 novembre 1986, à Drancy (93)**

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What is the translation of the Hopkins Symptom Checklist in 25 items  
into Croatian?

A Delphi consensus procedure for forward-backward translation.

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Présentée et soutenue publiquement le

Jeudi 27 Février 2014

Président du jury : Pr LE RESTE Jean-Yves

Membres du Jury : Dr NABBE Patrice

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# Faculté de Médecine & des Sciences de la Santé

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## AUTORISATION D'IMPRIMER

\*\*\*\*

Présentée par M le Professeur Jean-Yves Le Reste

**Titre de la thèse :**

What is the translation of the Hopkins Symptom Checklist in 25 items into Croatian? A Delphi consensus for forward-backward translation.

### ACCORD DU PRESIDENT DU JURY DE THESE SUR L'IMPRESSION DE LA THESE

En foi de quoi la présente autorisation d'imprimer sa thèse est délivrée à Mademoiselle Dargère Marine, interne en médecine générale.

Fait à BREST, le 12 10 2014

VISA du Doyen de la faculté

A BREST, le 12 10 2014

Le Président du Jury de Thèse,

**Professeur J.Y. LE RESTE**  
Directeur du Département  
Département de Médecine Générale

Le Doyen,

Professeur C. BERTHOU





## Serment d'Hippocrate

Au moment d'être admise à exercer la médecine, je promets et je jure d'être fidèle aux lois de l'honneur et de la probité.

Mon premier souci sera de rétablir, de préserver ou de promouvoir la santé dans tous ses éléments, physiques et mentaux, individuels et sociaux.

Je respecterai toutes les personnes, leur autonomie et leur volonté, sans aucune discrimination selon leur état ou leurs convictions. J'interviendrai pour les protéger si elles sont affaiblies, vulnérables ou menacées dans leur intégrité ou leur dignité. Même sous la contrainte, je ne ferai pas usage de mes connaissances contre les lois de l'humanité.

J'informerai les patients des décisions envisagées, de leurs raisons et de leurs conséquences.

Je ne tromperai jamais leur confiance et n'exploiterai pas le pouvoir hérité des circonstances pour forcer les consciences.

Je donnerai mes soins à l'indigent et à quiconque me les demandera. Je ne me laisserai pas influencer par la soif du gain ou la recherche de la gloire.

Admise dans l'intimité des personnes, je tairai les secrets qui me seront confiés. Reçue à l'intérieur des maisons, je respecterai les secrets des foyers et ma conduite ne servira pas à corrompre les mœurs.

Je ferai tout pour soulager les souffrances. Je ne prolongerai pas abusivement les agonies. Je ne provoquerai jamais la mort délibérément.

Je préserverai l'indépendance nécessaire à l'accomplissement de ma mission. Je n'entreprendrai rien qui dépasse mes compétences. Je les entretiendrai et les perfectionnerai pour assurer au mieux les services qui me seront demandés.

J'apporterai mon aide à mes confrères ainsi qu'à leurs familles dans l'adversité.

Que les hommes et mes confrères m'accordent leur estime si je suis fidèle à mes promesses ; que je sois déshonorée et méprisée si j'y manque.

## Remerciements

Je remercie les membres de mon jury :

**Monsieur le Professeur LE RESTE**

Médecin Généraliste à Lanmeur

Maitre de stage

Professeur des universités à la faculté de médecine de Brest

Pour m'avoir fait l'honneur de présider cette thèse.

Soyez assuré de ma profonde reconnaissance.

**Monsieur le Docteur NABBE**

Médecin Généraliste à Plounéour-Trez

Maître de stage

Maître de conférence associé à la faculté de médecine de Brest

Pour m'avoir proposé de participer à ce travail de recherche et m'avoir beaucoup aidé lors de sa rédaction.

Je suis heureuse d'avoir pu apporter ma contribution à cette aventure.

Soyez assuré de ma reconnaissance et de tout mon respect.

**Monsieur le Professeur LE FLOC'H**

Médecin Généraliste au Guilvinec

Maitre de stage

Professeur associé à la faculté de médecine de Brest

Pour m'avoir fait l'honneur de juger cette thèse.

Soyez assuré de ma profonde reconnaissance.

Et aussi

**Merci à Djurdjica Lazic et Stanislava Stojanović-Špehar**

Professeur de l'université de médecine de Zagreb et traducteur de l'université de médecine de Zagreb

Pour leur sérieux et leurs smiley amicaux.

Pour m'avoir fait découvrir une langue riche de mots et de sens.

Merci pour votre efficacité.

**Merci au groupe de thèse FPDM**

Pour l'aide apportée à la réalisation de cette thèse.

Je remercie mes proches :

**Merci à ma famille**

**Merci à mes parents, mes grands-parents**

**Et par ordre d'apparition**

**A Morgane pour sa relecture attentive**

**A Arthur pour sa bonne humeur permanente**

**A Louise pour m'avoir appris à justifier**

**A Thibault Vivement cet été**

B(+);P;Z;S;S.

**Merci à mes amis et à Rose**

Pour leur amitié et leur soutien indéfectible.

**A Caroline, Hélène et Adeline**

Pour les vacances à Penmarc'h et toutes celles à venir.

**Merci aux Dr Green et Carter**

Qui m'ont donné envie de faire ce métier.

## What is the translation of the Hopkins Symptom Checklist in 25 items into Croatian? A Delphi consensus procedure for forward-backward translation.

### **Résumé / Abstract**

#### *Résumé*

*Introduction* En Europe, la dépression est la seconde pathologie chronique prise en charge par les médecins généralistes (MGs). La Hopkins Symptom Checklist en 25 questions (HSCL-25) est un outil diagnostique validé de la dépression. Il a été sélectionné de façon consensuelle par des MGs experts européens. Cette étude avait pour but de traduire la HSCL-25 en Croate.

*Méthode* Traduction aller-retour par méthode Delphi. Un investigateur national Croate (NI) a réuni un panel de MGs experts. Le NI s'était assuré des consentements et de l'anonymat. Les experts devaient être anglophones, Croates, MGs en exercice avec des activités d'enseignement ou de recherche. Un binôme constitué d'un traducteur officiel et du NI bilingue proposait une traduction aller en Croate. Une échelle de Lickert permettait à chaque membre du panel de coter les propositions de traduction. Une traduction retour par un autre traducteur, aveugle de la traduction aller, devait être faite pour assurer l'homogénéité.

*Résultats* Les membres du panel étaient tous croates et anglophones, MG depuis en moyenne 19,2 années. 56,2% étaient chercheurs. Le binôme de traducteur a proposé une traduction aller au panel. 16 experts ont participé à la première ronde Delphi. 6 propositions ont nécessité un second tour. Le second tour a été réalisé par 15 experts (93,7% d'experts commun entre les deux rondes). Pour assurer l'homogénéité, la traduction retour en anglais, par un traducteur ne connaissant pas la HSCL-25, a été réalisée.

*Conclusion* Une traduction en Croate, homogène et consensuelle, de la HSCL-25 a été réalisée.

#### *Abstract*

*Introduction* In Europe, depression is the second most common chronic disease in primary care. To diagnose depression in family practice, European experts in primary care selected by consensus the Hopkins Symptom Checklist in 25 items (HSCL-25). This study aimed to translate the original English HSCL-25 into Croatian.

*Method* Forward-Backward translation by Delphi procedure. A Croatian national investigator (NI) recruited a panel of FPs (Family physicians) experts. NI guaranteed consents and anonymity. Experts were English speaking, Croatian native, working in family practice and having teaching or research activities for half of them. A Likert scale was used to rate the forward proposals of two translators (an expert translator and a bilingual academic researcher in primary care). A back translation was produced by another translator (having no knowledge about HSCL-25).

*Results* The panel characteristics were 100% English spoken and Croatian native, family practitioners since 19,2 years on average. 56,2% was academic researchers. 16 experts participated at a first Delphi round. 6 forward items needed a second Delphi round to achieve agreement. Second round was realized with 15 experts (93,7 % common experts between each round). The forward Croatian translation was subjected to a back English translation, to ensure the whole of homogeneity.

*Conclusion* A homogeneous consensual translation of the English HSCL-25 into Croatian was achieved.

## Introduction

Depression is the second most common chronic disorder seen by primary care physicians, the first ports of call in most European countries.<sup>1, 2</sup> Multi-morbid patients over 50 years are especially at risk.<sup>3-5</sup> Depression shares a variable combination of symptoms with other mental disorders such as contextual distress, anxiety and somatoform disorders.<sup>6</sup> The patient himself experiences difficulty expressing his suffering and exteriorizes his own illness expression. The difficulties to diagnose and assess the severity of depression lie in this inter-individual variability.<sup>7</sup> Clinicians can overestimate or underestimate the distress level of their patients.<sup>8, 9</sup> These difficulties may lead to inappropriate care and cause public health problems.<sup>10-12</sup> The Diagnostic and Statistical Manual of Mental Disorders (DSM) and International Classification of Diseases (ICD 10) are widely considered as the two gold standards for diagnosing depression but they are rarely used in General Practice.<sup>13,14</sup> Despite all this, Family Physicians (FPs) seem to be uncomfortable with both depression definitions and available diagnostic tools.<sup>15, 16</sup>

Incidence and prevalence rates of depression differ in General Practice across Europe and are related to complex contextual variations with differences in health care systems, in concepts, objectives and practices as well as cultural variations in the expression of the disease.<sup>17-19</sup> The European FPs' community needs a better knowledge of instruments that can be used to diagnose depression in adult patients. There is also a need for a European consensus on a single diagnostic tool for depression to undertake collaborative research in general practice throughout Europe.<sup>17</sup> It must be validated, reliable and ergonomic in FPs' daily practice. The Family Practice Depression and Multi-morbidity study (FPDM) started in 2011. The first and second steps designated the Hopkins Symptom Checklist in 25 items (HSCL-25) as the best tool in terms of reproducibility, reliability and feasibility.<sup>20</sup> This screening instrument is easy to implement and was extensively compared to DSM.<sup>16, 21</sup> Throughout Croatian History, the HSCL-25 was used without official and consensual translation available.<sup>22, 23</sup> The aim of this study was the translation of the HSCL-25 into Croatian.

## Background

The aim of the FPDM study is to select a single diagnostic tool that could be consensually used by FPs to diagnose adult patient's depression and to make it applicable in the participating European countries. It must be validated, reliable and ergonomic for FPs throughout Europe. This study consists of four steps. Firstly, a systematic review investigated all diagnosis tools, in order to select tools validated for depression versus DSM, in adult patients (excluding pregnant and post partum women).<sup>16</sup> Following this step, seven tools were selected. The second step was a consensus procedure aiming to select the best possible tool among the validated tools.<sup>20</sup> The method chosen to reach a consensus was Research AND Development corporation and the University of California Los Angeles (RAND/UCLA procedure). The HSCL-25 was designated to be the most appropriate tool for diagnosing depression in adult patients in general practice in Europe, owing to its combined criteria of effectiveness, reliability and ergonomic.<sup>20</sup> The study was part of the third step, which consisted of translating this tool into the language of every country taking part in FPDM study, following the same formal consensus method, with the support of European General Practice Research Network (EGPRN). The aim of this study was to translate the HSCL-25 into Croatian using forward-backward translation by Delphi consensus procedure.

## Method

### *Definition*

The HSCL-25 is a self-report questionnaire on the existence and severity of both anxiety and depression symptoms during the previous week, used to identify psychiatric illness in primary care. It includes 25 items: 10 items for anxiety and 15 items for depression (annex A).<sup>24</sup> These 15 items (items 11-25) are consistent with the DSM-IV diagnosis of major depression. A cut-off value of  $\geq 1,75$  is generally used for a diagnosis of major depression.<sup>25, 26</sup>

In order for the translation to retain the same meaning as the original, a forward-backward translation was done following a formal consensus method: Delphi round.<sup>27, 28</sup> A formal consensus is the most appropriate when it is necessary to achieve a robust and transparent consensus on an issue that had been poorly studied.<sup>29</sup> The Delphi process is reliable and efficient, and is used frequently in health care as a rigorous way to reach consensus in defined clinical areas.<sup>30</sup> It is a systematic interactive method which involves a panel of experts using iterative procedures.<sup>31</sup> It can be done quickly and cheaply to make a single convergent final recommendation.<sup>30</sup> Four rules need to be followed during this process: anonymity of participants (ensures responses reliability and avoids contamination), iteration (allows participants to refine their views in the light of the progress of the group's work), controlled feedback under the responsibility of a National Investigator (NI), statistical aggregation of group response and the use of Likert scale data allowing a quantitative analysis.<sup>27,30,32-36</sup>

### *Consents and anonymity*

The NI asked the participants for their signed consent, made the experts responses anonymous and delivered an identification number for later identification. One expert's name was not transmitted to another. Only NI's consent was sent to the Pilot Team (PT). As the study involved no patient, it did not require an ethic committee's decision.<sup>37</sup>

### *Participants*

The PT was composed by the EGPRN French team whose was familiar with Delphi methodology. It requested the NI's consent and voluntary participation in the study, as well as an absence of conflict of interest statement. It ensured that the whole process followed the protocol. It didn't take part in Delphi rounds. The forward-backward translation had to be validated by the daily board of the study composed of member of EGPRN all active within the research process.

The NI was in charge of recruiting experts and translators. He acted between each phase and between two Delphi rounds. He didn't act when a Delphi round was in progress.

The NI selected four translators in order to constitute two translation teams. Translators must have knowledge about health care terminology. The forward translation team involved one FP researcher (it could be the NI) and one official translator, Croatian was to be their native language. The backward translation team involved one (or two) FP(s) and one official translator whose native language was to be English.<sup>38</sup> The two teams should not behave in the same person.<sup>39</sup>

Initially, 20 to 30 experts were recruited in order to keep at least 15 participants until the end of each round.<sup>40</sup> The selection criteria for every expert are: being Croatian native (and having Croatian as a native language), being English speaker and in Family practice. More than a half had to have teaching or research activities.<sup>41</sup> In order to assess the representativeness of the panel by its diversity, the experts provided informations about their gender, years of practice, area of practice and publications.

### *Forward translation*

The PT sent the HSCL-25 English version to the NI who sent it to the forward translation team. This team translated HSCL-25 from English to Croatian aiming to retain the same meaning as the original.<sup>35, 38</sup>

### *Delphi rounds*

At the beginning of the first round, the NI emailed the English and the Croatian versions of every excerpt to the experts separately. A mailing list was not used, in order to assure anonymity which increased the reliability of responses and avoided contamination (discussion between experts).<sup>32</sup>

Experts expressed their level of agreement on each proposal by using a Likert scale. The Likert scale was an agree-disagree scale of 1 to 9.<sup>38, 42</sup> It was symmetrical and odd, and measured the intensity of experts' feelings on each proposal, taking into account the retention of the meaning between the original and the translation proposal, the ergonomic and the ease of understanding. Experts ranked the proposal from 1 (absolutely no agreement) to 9 (full agreement) and were asked to comment when rating less than 7. They were not aware of the following interpretation of data processing. Consensus was defined for the translation of an excerpt when it was rated 7 or above by over 70% of the panel. It was accepted directly and did not enter the following rounds; if not (the proposal didn't reach consensus), the NI and the forward official translator made a synthesis of the experts' comments to propose a new translation proposal for this excerpt.

The time between two rounds was to be less than four weeks. The following round began when the NI sent these documents to the experts individually for each excerpt those didn't reach consensus. He sent the original English version, the unaccepted proposal, the entire experts' comments on this proposal and the new proposal. Then, experts ranked the new proposal in the same way as for the first round. The following rounds followed an identical process. This process was repeated until a consensual translation was found for all excerpts, the number of rounds was not limited. At the end of the Delphi process, there was a consensus on a final Croatian version of the HSCL-25.

### *Backward translation*

The NI sent the final Croatian version of HSCL-25 to the backward translation team who had to translate it into English.<sup>43</sup> The team (different from the first one) should not have knowledge of the original version (blind back translation).<sup>39, 44-46</sup> Finally, he sent the backward English version to the PT.

## Results

### *Forward translation*

The first translation into Croatian was done by NI and the first official translator (consents shown on annex B), whose native language was Croatian and had knowledge in health care terminology (official translator of Zagreb medical university). The first forward translation (presented on annex C) was sent to 30 experts, not using a mailing list.

### *Panel's characteristics*

Of the 30 experts invited to participate by the NI (15 FPs with academic research and 15 FPs teachers), 16 (53,3%) experts agreed and completed the first round and 15 (50%) the second round. The participation of those who participated in the first round and at the second round was about 93,7%. The panel was made up of English speakers : medical practitioners' experience ranged from 4 to 35 years (average 19,2 years S.D 8,8), academic researchers' ranged from 7 to 30 years (average 13,8 years S.D 7,5) represented 56,2% of the panel (and 53,3% for second round). Teachers' ranged from 1 to 30 years (average 9,3 years S.D 8). Males only made up 18,7% of the panel. 87,5% came from big city, 6,25% from small city and 6,24% worked in rural cities (table 1). All consents were brought back to the NI.

Number of anonymity	Gender M : male F : female	English speaker Y: yes N: no	Family practice (years)	Academic research (years)	Publication Y : yes N :no	Years of teaching	Area A rural B small city C big city	Participation to first round (I) second round (II)
1	M	Y	10	10	Y	10	C	I/II
2	F	Y	23	10	Y	10	C	I/II
3	F	Y	30	None	N	10	C	I/II
4	F	Y	22	None	Y	15	B	I/II
5	F	Y	15	None	Y	4	C	I/II
6	F	Y	23	None	Y	20	C	I/II
7	F	Y	15	8	Y	3	C	I/II
8	M	Y	5	None	Y	1	C	I/II
9	F	Y	15	11	Y	10	C	I/II
11	F	Y	20	10	Y	15	C	I/II
15	F	Y	13	7	Y	3	A	I
17	F	Y	35	30	Y	30	C	I/II
18	F	Y	4	None	Y	1	C	I/II
20	M	Y	27	18	Y	12	C	I/II
21	F	Y	28	20	Y	4	C	I/II
26	F	Y	22	None	Y	1	C	I/II

n=16.

**Table 1: Panel's characteristics**



## First round

The first round began on the 12<sup>th</sup> August 2013 and continued until the 28<sup>th</sup> August 2013. The experts examined all items of HSCL-25. At the end of the two weeks, 11 items (34,4%) were problematic. 5 items (items 2, 3, 9, 10, and 15) had only gender problem (items talking about fear and loneliness) the NI decided not to have a second round in relation to these. The other 6 items (18,7%) on which consensus was not reached were items 11, 14, 16, 17, 20 and 21 (table 2).

Items	Answers rate $\geq 7$		Answers 3 < rate < 7		Answers rate $\leq 3$		Results
	n	%	n	%	n	%	
1	12	75	4	25	0	0	Appropriate without disagreement
2	11	68,7	5	31,3	0	0	Inapropriate
3	10	62,5	5	31,3	1	6,2	Inapropriate
4	12	75	4	25	0	0	Appropriate without disagreement
5	14	87,5	2	12,5	0	0	Appropriate without disagreement
6	13	81,2	3	18,8	0	0	Appropriate without disagreement
7	12	75	4	25	0	0	Appropriate without disagreement
8	14	87,5	2	12,5	0	0	Appropriate without disagreement
9	11	68,7	5	31,3	0	0	Inapropriate
10	11	68,7	5	31,3	0	0	Inapropriate
11	9	56,3	6	37,5	1	6,2	Inapropriate
12	12	75	4	25	0	0	Appropriate without disagreement
13	13	81,2	3	18,8	0	0	Appropriate without disagreement
14	10	62,5	5	31,3	1	6,2	Inapropriate
15	10	62,5	6	37,5	0	0	Inapropriate
16	9	56,3	7	43,7	0	0	Inapropriate
17	10	62,5	6	37,5	0	0	Inapropriate
18	13	81,2	3	18,8	0	0	Appropriate without disagreement
19	12	75	4	25	0	0	Appropriate without disagreement
20	10	62,5	6	37,5	0	0	Inapropriate
21	10	62,5	5	31,3	1	6,2	Inapropriate
22	15	93,8	1	6,2	0	0	Appropriate without disagreement
23	14	87,5	2	12,5	0	0	Appropriate without disagreement
24	14	87,5	2	12,5	0	0	Appropriate without disagreement
25	14	87,5	1	6,2	1	6,2	Appropriate without disagreement
1*	14	87,5	2	12,5	0	0	Appropriate without disagreement
2*	16	100	0	0	0	0	Appropriate without disagreement
3*	15	93,8	1	6,2	0	0	Appropriate without disagreement
4*	16	100	0	0	0	0	Appropriate without disagreement
T1*	12	75	4	25	0	0	Appropriate without disagreement
T2*	13	81,2	3	18,8	0	0	Appropriate without disagreement
S1*	16	100	0	0	0	0	Appropriate without disagreement

Data are number or % of total answers, n=16.

1\*: not at all; 2\*: a little; 3\*: quite a bit; 4\*: extremely; T1\*: first explication; T2\*: second explication;

S1\*: first sentence before items.

**Table 2: Results of the first round**

## Comments and no-agreement items

For these 6 items (items 11, 14, 16, 17, 20 and 21), few comments helped the NI and the first official translator to make other proposal for the second round (annex D).

## Second Delphi round

Using all these comments, the NI and the first translator made other propositions for these 6 items (annex E) and the second round began on the 29<sup>th</sup> August 2013 and ended on the 13<sup>th</sup> September 2013. For this second round, 15 participants answered (table 1). Agreement was reached on the 6 items at the end of the two weeks (table 3).

Items	Answers rate $\geq 7$		Answers $3 < \text{rate} < 7$		Answers rate $\leq 3$		Results
	n	%	n	%	n	%	
11	11	73,3	4	26,7	0	0	Appropriate without disagreement
14	12	80	3	20	0	0	Appropriate without disagreement
16	13	86,7	2	13,3	0	0	Appropriate without disagreement
17	11	73,3	4	26,7	0	0	Appropriate without disagreement
20	13	86,7	2	13,3	0	0	Appropriate without disagreement
21	12	80	3	20	0	0	Appropriate without disagreement

Data are number or % of total answers, n=15.

**Table 3: Results of second round**

At the end of the second round, the most frequently rate for all proposal was 9 (table 4).

Rate	% of answers
9	62,3
8	13
7	5,7
$4 \leq \text{rate} \leq 6$	18,5
$\leq 3$	0,5

**Table 4: Answers 'dispersion for each rate at the end of second round**

Adding first and second rounds, 115 answers ranked  $< 7$ , 33 comments were brought to the NI representing 28,5% of non agreement items which were comment (some comments shown in annex D). The national group reached a consensus. The final Croatian forward translation is proposed on annex F.

## Backward translation

The forward translation was done by two official translators (different from the first one) without previous knowledge of the HSCL-25 (were knowledgeable about health care terminology) (annex G) and whose native language was Croatian. Table 5 shows HSCL-25 English, forward and backward translations.

	English version	Forward translation	Backward translation
	Choose the best answer for how you felt over the past week:	Izaberite jedan odgovor koji najbolje opisuje kako ste se osjećali tijekom prošlog tjedna:	Choose one answer that best describes how you have been feeling in the past week:
	1 - Not at all 2 - A little 3 - Quite a bit 4 - Extremely	1 – Nimalo 2 – Malo 3 – Dosta 4 – Jako	1 - Not at all 2 - A little 3 - Quite a bit 4 - A lot
<b>1</b>	Being scared for no reason	Bili ste bezrazložno uplašeni	You have been scared for no reason
<b>2</b>	Feeling fearful	Bojali ste se	You have been afraid
<b>3</b>	Faintness	Bili ste slabi	You have been weak
<b>4</b>	Nervousness	Bili ste nervozni	You have been nervous
<b>5</b>	Heart racing	Ubrzano vam je lupalo srce	Your heart has been racing
<b>6</b>	Trembling	Drhtali ste	You have been trembling
<b>7</b>	Feeling tense	Bili ste napeti	You have been tense
<b>8</b>	Headache	Boljela vas glava	You have had a headache
<b>9</b>	Feeling panic	Bili ste u panici	You have been in panic
<b>10</b>	Feeling restless	Bili ste uznemireni	You have been upset
<b>11</b>	Feeling low in energy	Niste imali dovoljno energije	You haven't had enough energy
<b>12</b>	Blaming oneself	Okrivljavali ste se	You have blamed yourself
<b>13</b>	Crying easily	Bili ste plačljivi	You have felt like crying
<b>14</b>	Losing sexual interest	Niste bili zainteresirani za spolni odnos	You have not been interested in sexual intercourse
<b>15</b>	Feeling lonely	Bili ste usamljem	You have felt lonely
<b>16</b>	Feeling hopeless	Osjećali ste sebezadno	You have felt hopeless
<b>17</b>	Feeling blue	Bili ste sjetni	You have been melancholic
<b>18</b>	Thinking of ending one's life	Razmišljali ste da si oduzmete život	You have been thinking about taking your life
<b>19</b>	Feeling trapped	Osjećali ste sekao da ste u klopci	You have felt as if trapped
<b>20</b>	Worrying too much	Bili ste previše zabrinuti	You have worried too much
<b>21</b>	Feeling no interest	Bez interesa za bilo što	Without interest in anything
<b>22</b>	Feeling that everything is an effort	Sve vam je bilo naporno	Everything seemed too hard for you
<b>23</b>	Worthless feeling	Osjećali ste se bezvrijedno	You have felt worthless
<b>24</b>	Poor appetite	Imali ste slab apetit	You have had poor appetite
<b>25</b>	Sleep disturbance	Imali ste problema sa spavanjem	You had problem sleeping

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<p>English version first and last sentences</p>	<p>The HSCL 25 score is based on pencil-and-paper self-report of 25 questions about the presence and intensity of anxiety and depression symptoms over the last week. Participants answer to one of four categories for each item on a four-point scale ranging from 1 to 4.</p> <p>The HSCL-25 score is calculated by dividing the total score (sum score of items) by the number of items answered (ranging between 1, 00 and 4, 00). It is often used as the measure of distress.</p> <p>The patient is considered as a “probable psychiatric case” if the mean rating on the HSCL-25 is <math>\geq 1,55</math>. A cut-off value of <math>\geq 1, 75</math> is generally used for diagnosis of major depression defined as “a case, in need of treatment”. This cut-off point is recommended as a valid predictor of mental disorder as assessed independently by clinical interview, somewhat depending on diagnosis and gender.</p> <p>The administration time of HSCL 25 is 5 to 10 minutes.</p>
<p>Forward translation first and last sentences</p>	<p>HSCL-25 skor sastoji se od 25 pitanja koja se rješavaju jednostavno olovkom i papirom, a temelji se na samoprocjeni prisutnosti i intenzitetu anksioznih i depresivnih simptoma tijekom prošlog tjedna. Ispitanici odgovaraju jednom od četiri kategorija za svako pitanje na skali od 1-4.</p> <p>Skor HSCL-25 se izračunava dijeljenjem ukupnog zbroja (zbroj skora pojedinih pitanja) s brojem odgovorenih pitanje (raspon od 1,00 do 4,00). Obično se koristi za mjerenje distresa.</p> <p>Pacijent se smatra « vjerojatno psihijatrijskim slučajem » ako je srednja vrijednost na HSCL-25 <math>\geq 1,55</math>. Razdjelna točka (cut-off) <math>\geq 1,75</math> se koristi za dijagnozu velikog depresivnog poremećaja i to kao "slučaj koji zahtjeva liječenje". Razdjelna točka se preporuča kao validni prediktor mentalnog poremećaja podjednako kao i sama procjena neovisnim kliničkim intervjuom, dijelom ovisan o dijagnozi i spolu.</p> <p>Vrijeme za ispunjavanje HSCL-25 je 5-10 minuta.</p>
<p>Backward translation first and last sentences</p>	<p>HSCL-25 score consists of 25 items easily completed with pencil and paper, and is based on self-assessment of presence and on intensity of anxiety and depression symptoms in the past week. The respondents answer by one out of four categories for each item on a 1-4 scale.</p> <p>HSCL-25 score is calculated by dividing the total sum (sum of scores of individual items) by the number of answered items (range from 1.00 to 4.00). It is usually used for distress measurement.</p> <p>The patient is considered ‘a probable psychiatric case’ if the middle value at HSCL-25 <math>\geq 1.55</math>. The cut off point <math>\geq 1.75</math> is used for diagnosis of major depressive disorder as ‘a case requiring treatment. The cut off point is recommended as a valid predictor of mental disorder roughly the same as the assessment by independent clinical interview itself, partly dependent on diagnosis and gender.</p> <p>HSCL-25 completion time is 5-10 minutes.</p>

**Table 5: HSCL-25: original version, forward translation and backward translations**

## Discussion

The aim of this study was the translation of HSCL-25 into Croatian using a forward-backward translation by Delphi process. HSCL-25 was used in Croatian for several years without official translation to guaranteed the absence of loss of meaning between English and Croatian versions.<sup>22, 23</sup> HSCL-25 was already translated in Urdu and Tibetan without a cross-cultural method allowing FPs' expert (first port of call) to take part in HSCL-25 translation through the Delphi process.<sup>47, 48</sup>

The four rules of Delphi process were respected; emails permitted anonymous (avoided contamination and leader point of view) and process speed (two weeks for each round) without geographical constraints.<sup>29</sup> Panel (15 participants) was representative by gender and age. Each FP was English spoken and in academic research for half of them (all type of FPs were represented). The mix of FPs in family practice and FPs in academic research (each group with a long research or clinical experience) permitted to widen different point of view about subjective items in Croatian culture. There was 93,7% of participation between two rounds guaranteed Croatian FPs' interest. The HSCL-25 immediately demonstrated high internal consistency according to the 81,3% of items which had agreements at the end of the first round and the more than 62% of rate above 9 at the end of the second round. There was no lack of information because of the use of official translators for the forward-backward translation (moreover with the back translator who worked blind knowledge of HSCL-25 guaranteed no confusion bias) even if items in backward translation seemed to be different. A cultural check must be carried out to for this to be assessed.<sup>39, 49, 50</sup>

6 problematic items were translated by the NI and the first translator to be proposed again to the panel. The progression of consensus after the new proposal of the NI and the first translator for these 6 items was highly satisfying with more than 70% of agreement for each of these. For all these items, unless one comment was about the use of neutral gender which very important in Croatian. 25% of items about feeling made problem (4 problematic items out of 16 conveying feeling). Feeling low in energy (item 11), the first translation was about feeling of losing power or feeling weak. The participants' comments were about a lack of energy. For feeling hopeless (item 16), the 7 comments were more about desperation than the loss of hope. For feeling blue (item 17), the 5 comments were more about melancholy than sadness. For feeling no interest (item 21), the 5 comments were more about feeling indifference than any interest. For item 14 (losing sexual interest), the 5 comments were about the loss of interest while the first translation was about the absence of sexual relation. For item 20 (worrying too much), the 5 comments were about worrying beyond measure unless first translation was just about worrying. These problematic items and the need of neutral gender into Croatian must be validated by a cultural check to guarantee the absence of lost information between the original version of HSCL-25 and the backward translation into Croatian. It illustrated the difficulty to choose the good word according to Croatian cultural criteria and the necessity of a cross-cultural method for subjective psychiatric disorder like depression.<sup>39, 43</sup>

There was an information bias in the study; one limit of the study was the absence of 5 items in second round: items 2, 3, 9, 10, and 15. These 5 items didn't satisfy the consensus required by the study: there was no 70% of rate  $\geq 7$ . These items should have been proposed for the second round. The NI who was familiar with the Delphi process and HSCL-25, decided in agreement with the first official translator not to present these because of grammatical reason. The Croatian language has female, male and neutral genders for adjectives (explained complete sentence in the backward translation: you have and not only one adjective). The comments on these 5 items were only about the need of using the neutral gender "bili".

Confusion bias was limited by the use of cross-cultural process. The forward-backward process is an internationally validated process of translation and adaptation of instruments in cross-cultural research: one translator's knowledge about health-care terminology and the second's blind-knowledge about HSCL-25 assessed the process. The results of our study were made with a few comments ranked <7, posed no problems to make new proposals for the second round.

## **Conclusion**

Using a forward-backward translation through a Delphi process, this study completed the translation of HSCL-25 into Croatian. The use of a cross cultural instrument and a representativeness panel allowed the consensual translation of this scale. Two Delphi rounds were needed to assess the entire process. This third step of the global FPDM study required this consensus. Although national consensus was reached, a cultural check is needed to analyze the homogeneity of the forward and backward translations in all countries including Croatia. This will be undertaken during the EGPRN meeting in May 2014. The FPDM study will go on based on those results and the one of the other EGPRN countries'. Next year, the fourth step of FPDM will consist in testing the HSCL-25 in each language in order to assess the feasibility, reliability and efficiency of this tool in real practice. Obtaining the best possible tool to diagnose depression in primary care will enable collaborative studies throughout Europe. This will be the starting point of many studies about depression throughout Europe. It could be also a help for family physicians in everyday practice.

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## Annex A: Hopkins Symptom Checklist in 25 items English version

The HSCL 25 score is based on pencil-and-paper self-report of 25 questions about the presence and intensity of anxiety and depression symptoms over the last week. Participants answer to one of four categories for each item on a four-point scale ranging from 1 to 4.

Choose the best answer for how you felt over the past week:

	Items	Not at all	A little	Quite a bit	Extremely
1	Being scared for no reason				
2	Feeling fearful				
3	Faintness				
4	Nervousness				
5	Heart racing				
6	Trembling				
7	Feeling tense				
8	Headache				
9	Feeling panic				
10	Feeling restless				
11	Feeling low in energy				
12	Blaming oneself				
13	Crying easily				
14	Losing sexual interest				
15	Feeling lonely				
16	Feeling hopeless				
17	Feeling blue				
18	Thinking of ending one's life				
19	Feeling trapped				
20	Worrying too much				
21	Feeling no interest				
22	Feeling that everything is an effort				
23	Worthless feeling				
24	Poor appetite				
25	Sleep disturbance				

The HSCL-25 score is calculated by dividing the total score (sum score of items) by the number of items answered (ranging between 1, 00 and 4, 00). It is often used as the measure of distress.

The patient is considered as a “probable psychiatric case” if the mean rating on the HSCL-25 is  $\geq 1,55$ . A cut-off value of  $\geq 1, 75$  is generally used for diagnosis of major depression defined as “a case, in need of treatment”. This cut-off point is recommended as a valid predictor of mental disorder as assessed independently by clinical interview, somewhat depending on diagnosis and gender.

The administration time of HSCL 25 is 5 to 10 minutes.

## Annex B: Consent of the national investigator

### Consent Form

(for each leader with department of general practice, Brest, France)

#### International Investigator Senior Coordinator

Name: Nabbe Patrice

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#### National leader investigator name

Name : ĐURĐICA KASUBA LAZIĆ, STANISLAVA SPEHAR STOJANOVIĆ  
Address : ~~HITEL~~ ZOCKEFELJEVA 21. 10 000 ZAGREB  
University: UNIVERSITY OF ZAGREB, School of Medicine, Dpt. of Family Medicine

#### Asked me to participate in a forward/backward translation.

I had time to reflect on my involvement in this study. I am aware that my participation is completely voluntary and that the study will entail no additional cost to my charge.

I can, at any time, decide to leave the study without giving reasons for my decision and that it does without consequences.

I understood that the data collected during the research would be protected in accordance to confidentiality. They can only be accessed by persons subject to professional secrecy belonging to the team-investigating physician, mandated by the promoter.

I accept the computerized processing of personal data in accordance with the data protection act. I have been informed of my right to access and rectify data concerning me.

My consent does not absolve the responsibilities of the organizers of this research. I retain all my rights guaranteed by Law.

Done in two originals

at 17. 10. 2013, the dd/mm/yyyy

Name, first name of national leader:  
ĐURĐICA KASUBA LAZIĆ  
interviewee: STANISLAVA STOJANOVIĆ-SPEHAR

Name, first name of the

Signature:  
D.K. Lazić  
S. Stojanović-Spehar

## Annex C : First forward translation of Hopkins Symptom Checklist in 25 items

HSCL-25 skor sastoji se od 25 pitanja koja se rješavaju jednostavno olovkom i papirom, a temelji se na samoprocjeni prisutnosti i intenzitetu anksioznih i depresivnih simptoma tijekom prošlog tjedna. Ispitanici odgovaraju jednom od četiri kategorija za svako pitanje na skali od 1-4.

Izaberite jedan odgovor koji najbolje opisuje kako ste se osjećali tijekom prošlog tjedna:

	Pitanje	Nimalo	Malo	Dosta	Jako
1	Bili ste bezrazložno uplašeni				
2	Bojali ste se				
3	Bili ste slabi				
4	Bili ste nervozni				
5	Ubrzano vam je lupalo srce				
6	Drhtali ste				
7	Bili ste napeti				
8	Boljela vas je glava				
9	Bili ste u panici				
10	Bili ste uznemireni				
11	Osjećali ste gubitak energije				
12	Okrivljavali ste se				
13	Bili ste plačljivi				
14	Nije vam bilo do seksa				
15	Bili ste usamljeni				
16	Izgubili ste nadu				
17	Bili ste tužni				
18	Razmišljali ste da si oduzmete život				
19	Osjećali ste se kao da ste u klopci				
20	Bili ste jako zabrinuti				
21	Niste imali interes nizašto				
22	Sve vam je bilo naporno				
23	Osjećali ste se bezvrijedno				
24	Imali ste slab apetit				
25	Imali ste problema sa spavanjem				

Skor HSCL-25 se izračunava dijeljenjem ukupnog zbroja (zbroj skora pojedinih pitanja) s brojem odgovorenih pitanje (raspon od 1,00 do 4,00). Obično se koristi za mjerenje distresa.

Pacijent se smatra « vjerojatno psihijatrijskim slučajem » ako je srednja vrijednost na HSCL-25  $\geq 1,55$ . Razdjelna točka (cut-off)  $\geq 1,75$  se koristi za dijagnozu velikog depresivnog poremećaja i to kao „slučaj koji zahtjeva liječenje“. Razdjelna točka se preporuča kao validni prediktor mentalnog poremećaja podjednako kao i sama procjena neovisnim kliničkim intervjuom, dijelom ovisan o dijagnozi i spolu. Vrijeme za ispunjavanje HSCL-25 je 5-10 minuta.

## Annex D: Comments on non agreement 6 items after the first Delphi round

(number before the sentences are experts' number of anonymity)

Item 11: Feeling low in energy.

Translation: Osjećao sam gubitak energije/osjećao sam se slabo.

1. Osjećali kao da nemate energiju.
3. Osjećao sam manjak energije.
4. Kao da nemam dovoljno energije.
8. Osjećao sam nedostatak energije.
7. Osjećao sam manjak energije.
18. Osjećao/la.

Item 14: Losing sexual interest.

Translation: Nije mi bilo do seksa.

1. Niste imali interesa za seksom.
4. Kao da gubim interes za seks.
17. Izgubio sam interes za seks.
26. Izgubio sam interes za seks.
18. Nisam bio/bila zainteresiran/a za spolni odnos.

Item 16: Feeling hopeless.

Translation: Izgubio sam nadu.

1. Osjećali se beznadno.
2. Osjećao sam beznadnost.
4. Beznandno.
7. Osjećao se beznadno.
17. Osjećao sam se beznadno.
26. Osjećao sam beznadnost.
18. Izgubio/la.

Item 17: Feeling blue.

Translation: Bio sam tužan.

1. Bili tužni.
2. Tužan sam, sjetan.
4. Tužno.
26. Osjećao sam se tužan.
18. Bio/bila.

Item 20: Worrying too much.

Translation: Bio sam jako zabrinut.

1. Bili previše zabrinuti.
2. Pretjerano sam se brinuo.
4. Suviše zabrinut.
8. Bio sam zabrinut preko mjere.
18. Bio/la.

Item 21: Feeling no interest.

Translation: Nisam imao interes nizašto.

1. Ništa Vam nije bilo zanimljivo.
3. Osjećao sam gubitak interesa.
4. Bez interesa za bilo što.
26. Osjećao sam nezainteresiranost.
18. Nisam imao/la.

## Annex E : New propositions for second round

Item 11: Feeling low in energy.

First translation: Osjećao sam gubitak energije/osjećao sam slabo.

Second translation : Niste imali dovoljno energije.

Item 14: Loosing sexual interest.

First translation: Nije mi bilo do seksa.

Second translation: Niste bili zainteresirani za spolni odnos.

Item 16: Feeling hopeless.

First translation: Izgubio sam nadu.

Second translation: Osjećali ste se beznadno.

Item 17: Feeling blue.

First translation: Bio sam tužan.

Second translation: Bili ste sjetni.

Item 20: Worrying too much.

First translation: Bio sam jako sabrinut.

Second translation: Bili ste previše zabrinuti.

Item 21: Feeling no interest.

First translation: Nisam imao interes nizašto.

Second translation: Bez interesa za bilo što.

## Annex F: Final forward translation of Hopkins Symptom Checklist in 25 items

HSCL-25 skor sastoji se od 25 pitanja koja se rješavaju jednostavno olovkom i papirom, a temelji se na samoprocjeni prisutnosti i intenzitetu anksioznih i depresivnih simptoma tijekom prošlog tjedna. Ispitanici odgovaraju jednom od četiri kategorija za svako pitanje na skali od 1-4.

Izaberite jedan odgovor koji najbolje opisuje kako ste se osjećali tijekom prošlog tjedna:

	Pitanje	Nimalo	Malo	Dosta	Jako
1	Bili ste bezrazložno uplašeni				
2	Bojali ste se				
3	Bili ste slabi				
4	Bili ste nervozni				
5	Ubrzano vam je lupalo srce				
6	Drhtali ste				
7	Bili ste napeti				
8	Boljela vas glava				
9	Bili ste u panici				
10	Bili ste uznemireni				
11	Niste imali dovoljno energije				
12	Okrivljavali ste se				
13	Bili ste plačljivi				
14	Niste bili zainteresirani za spolni odnos				
15	Bili ste usamljem				
16	Osjećali ste sebezadno				
17	Bili ste sjetni				
18	Razmišljali ste da si oduzmete život				
19	Osjećali ste sekao da ste u klopci				
20	Bili ste previše zabrinuti				
21	Bez interesa za bilo što				
22	Sve vam je bilo naporno				
23	Osjećali ste se bezvrijedno				
24	Imali ste slab apetit				
25	Imali ste problema sa spavanjem				

Skor HSCL-25 se izračunava dijeljenjem ukupnog zbroja (zbroj skora pojedinih pitanja) s brojem odgovorenih pitanje (raspon od 1,00 do 4,00). Obično se koristi za mjerenje distresa.

Pacijent se smatra « vjerojatno psihijatrijskim slučajem » ako je srednja vrijednost na HSCL-25  $\geq 1,55$ . Razdjelna točka (cut-off)  $\geq 1,75$  se koristi za dijagnozu velikog depresivnog poremećaja i to kao „slučaj koji zahtjeva liječenje“. Razdjelna točka se preporuča kao validni prediktor mentalnog poremećaja podjednako kao i sama procjena neovisnim kliničkim intervjuom, dijelom ovisan o dijagnozi i spolu. Vrijeme za ispunjavanje HSCL-25 je 5-10 minuta.



## Annex G: Backward translation of Hopkins Symptom Checklist in 25 items

HSCL-25 score consists of 25 items easily completed with pencil and paper, and is based on self-assessment of presence and on intensity of anxiety and depression symptoms in the past week. The respondents answer by one out of four categories for each item on a 1-4 scale.

Choose one answer that best describes how you have been feeling in the past week:

	Items	Not at all	A little	Quite a bite	A lot
1	You have been scared for no reason				
2	You have been afraid				
3	You have been weak				
4	You have been nervous				
5	Your heart has been racing				
6	You have been trembling				
7	You have been tense				
8	You have had a headache				
9	You have been in panic				
10	You have been upset				
11	You haven't had enough energy				
12	You have blamed yourself				
13	You have felt like crying				
14	You have not been interested in sexual intercourse				
15	You have felt lonely				
16	You have felt hopeless				
17	You have been melancholic				
18	You have been thinking about taking your life				
19	You have felt as if trapped				
20	You have worried too much				
21	Without interest in anything				
22	Everything seemed too hard for you				
23	You have felt worthless				
24	You have had poor appetite				
25	You had problem sleeping				

HSCL-25 score is calculated by dividing the total sum (sum of scores of individual items) by the number of answered items (range from 1.00 to 4.00). It is usually used for distress measurement.

The patient is considered 'a probable psychiatric case' if the middle value at HSCL-25  $\geq 1.55$ . The cut off point  $\geq 1.75$  is used for diagnosis of major depressive disorder as 'a case requiring treatment'. The cut off point is recommended as a valid predictor of mental disorder roughly the same as the assessment by independent clinical interview itself, partly dependent on diagnosis and gender.

HSCL-25 completion time is 5-10 minutes.

DARGERE (Marine)-What is the translation of the Hopkins Symptom Checklist in 25 items into Croatian? A Delphi consensus procedure for forward-backward translation – 32f; tabl; annex.  
Th.: Méd. : Brest 2014

### **RESUME / ABSTRACT**

*Introduction* En Europe, la dépression est la seconde pathologie chronique prise en charge par les médecins généralistes (MGs). La Hopkins Symptom Checklist en 25 questions (HSCL-25) est un outil diagnostique validé de la dépression. Il a été sélectionné de façon consensuelle par des MGs experts européens. Cette étude avait pour but de traduire la HSCL-25 en Croate. *Méthode* Traduction aller-retour par méthode Delphi. Un investigateur national Croate (NI) a réuni un panel de MGs experts. Le NI s'était assuré des consentements et de l'anonymat. Les experts devaient être anglophones, Croates, MGs en exercice avec des activités d'enseignement ou de recherche. Un binôme constitué d'un traducteur officiel et du NI bilingue proposait une traduction aller en Croate. Une échelle de Likert permettait à chaque membre du panel de coter les propositions de traduction. Une traduction retour par un autre traducteur, aveugle de la traduction aller, devait être faite pour assurer l'homogénéité. *Résultats* Les membres du panel étaient tous croates et anglophones, MG depuis en moyenne 19,2 années, 56,2% étaient chercheurs. Le binôme de traducteur a proposé une traduction aller au panel. 16 experts ont participé à la première ronde Delphi. 6 propositions ont nécessité un second tour. Le second tour a été réalisé par 15 experts (93,7% d'experts communs entre les deux rondes). Pour assurer l'homogénéité, la traduction retour en anglais, par un traducteur ne connaissant pas la HSCL-25, a été réalisée. *Conclusion* Une traduction en Croate, homogène et consensuelle, de la HSCL-25 a été réalisée.

*Introduction* In Europe, depression is the second most common chronic disease in primary care. To diagnose depression in family practice, European experts in primary care selected by consensus the Hopkins Symptom Checklist in 25 items (HSCL-25). This study aimed to translate the original English HSCL-25 into Croatian. *Method* Forward-Backward translation by Delphi procedure. A Croatian national investigator (NI) recruited a panel of FPs (Family physician) experts. NI guaranteed consents and anonymity. Experts were English speaking, Croatian native, working in family practice and having teaching or research activities for half of them. A Likert scale was used to rate the forward proposals of two translators (an expert translator and a bilingual academic researcher in primary care). A back translation was produced by another translator (having no knowledge about HSCL-25). *Results* The panel characteristics were 100% English spoken and Croatian native, family practitioners since 19,2 years on average. 56,2% was academic researchers. 16 experts participated at a first Delphi round. 6 forward items needed a second Delphi round to achieve agreement. Second round was realized with 15 experts (93,7% common experts between each round). The forward Croatian translation was subjected to a back English translation, to ensure the whole of homogeneity. *Conclusion* A homogeneous consensual translation of the English HSCL-25 into Croatian was achieved.

### **MOTS -CLES**

DEPRESSION ; TRANSLATION ; HSCL-25 ; DELPHI ; CROATIAN

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Jeudi 27 Février 2014

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