



MINDFUL - Mental health information and determinants for the European level

Annex 6: Mental health survey methods and instruments

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Prepared by Prof. Viviane Kovess-Masfety

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Introduction

This work is the survey part of the MINDFUL project to set up a system across EU and Candidate Countries which allows monitoring of mental health on regular basis.

Because most of the persons suffering from mental health disorders will never be in contact with hospitals and specialised care, their disorders have to be measured by general population surveys.

The report "The State of Mental Health in the European Union" (available at http://ec.europa.eu/health/ph_projects/2001/monitoring/fp_monitoring_2001_frep_06_en.pdf) has reviewed extensively all mental health surveys in EU, including those organised at the EU level, in an attempt to compare mental health across EU and their determinants. Such review underlined how much need there is for scientifically comparative surveys to monitor and take full advantages of such comparisons.

The present project aims to compare the most recognised survey instruments used to measure mental health across diverse EU countries on their capacities to get close to a clinical diagnosis (gold standard). These results will allow choosing for EU mental health monitoring instruments on their capacity to adequately recognise the disorders across diverse countries in the diverse EU languages and cultures.

1. Methodology

Administration and Implementation

MGEN Foundation was coordinating five subpartners

- Carta Mauro, Cagliari University, Italy.
- Kittel France, Public Health, Université Libre de Bruxelles, Belgium.
- Tudorache Bogdana, Ligue Roumaine de Santé Mentale, Romania.
- Mateos Raimondo, Faculté de Médecine de Santiago de Compostelle, Spain.
- Martin Prince, Institute of Psychiatry, London, United Kingdom.

2 objectives: 5 validation and 5 pilot studies

The work was divided into two parts to be done successively:

- a part on clinical **validation** comparing surveys instruments versus clinician diagnosis (gold standard)
- a part on general population survey to pilot the validated instruments by conducting a **pilot survey** in each of participating countries

Part 1: Validation

The most recognised survey instruments for mental health were selected including those recommended in the MINDFUL indicator list:

- CIS-R (Clinical Interview Schedule – Revised),
- CIDI-SF (Composite International Diagnostic Interview Short Form) for depressive and anxiety disorders (diverse phobias, generalised anxiety, panic disorder)

- three subscales of the SF-36 (Short Form 36):
 - psychological distress measure: MH-5, in addition the General Health Questionnaire (GHQ) was used to ensure a sufficient number of cases
 - Positive mental health measures: EVA (energy and vitality which are positive mental health measures) and Sense of Mastery Scale
 - “Role Emotional” – Impairment : Role limitation items of the SF-36
- The SCID-I/NP (Structured Clinical Interview for DSM-IV-TR Axis I Disorders- Non Patient) was selected as the instrument to be used by the clinician who was an experienced psychiatrist or a psychologist trained for the use of the SCID-I/NP, as a gold standard to which instruments were compared.

The validation was conducted by interviewing volunteers selected in a primary care consultation (around 120 persons by country) using the survey instruments in a clinician interview (the order was randomised). General practitioner population was selected because it was close enough to general population and that their expected prevalence rates will be sufficiently high to obtain enough cases to be able to produce meaningful comparisons.

The following meetings were organised to set up methodology and follow progress over time:

Date	Type of the meeting		General Objectives
	Phone meeting	Face-to-Face meeting	
28-29 June 2004		X	Presentation of general information about the project Preparation of the diverser studies in agreement with the contract Establishment of a technical plan of work and planning for future meetings
4 October 2004	X		Approbation of the protocol agreed during the last face to face meeting (28/27 june 2004) Preparation of the field's work
7-8 January 2004		X	Bibliographic research on international cross-cultural surveys comparing instruments by each partners Preparation of the instruments Preparation of the field's work
3rd May 2005	X		Checking questionnaires and translation Progress on the field's work (validation)
19 July 2005	X		Administrative problems Progress on the field's work (validation)
7-9 October 2005		X	Presentation of preliminary results on validation results + discussion Presentation of the field's work and divergences in data Presentation of pilot survey methodology + firms
9 November 2005	X		Validation study first 20 results after checking data Presentation of problems with data entry Pilot Survey methodology and firms
10 February 2006	X		Validation Study: first results and decision Pilot survey: comments on methodology Decision on the instrument diagnosis
2 June 2006		X	Mindful project meeting

Each partner was given directives to manage the study. When translations were not available they had to translate the questionnaires into their own languages according a specific methodology using bilingual specialist with knowledge in the mental health domain.

Table 1. Translations of the different questionnaires by countries

Countries	CIS-R	SCID-I	CIDI-SF
Italy	Translated	Translated	Available from a former version to be adapted
Belgium/ France	Translated	Available from a Canadian version	Available from a former version to be adapted
Spain	Adjusted from a Chilean version	Available	Available and adjusted
United Kingdom	Available	Available	Available
Romania	Translated	Translated	Translated

The UK team having already access to English versions all questionnaires were not involved in this phase but their experience was very useful. On the other hand the Belgian team was unable to organise primary care interview so the interviews were conducted in France instead.

Interviews had to be entered into a coding sheet provided by the coordinator and to be forwarded to MGEN Foundation for Public Health in order to conduct appropriate analyses.

One site visit to each site was done in person by the coordinator to ensure data entry quality control.

Part 2: pilot surveys

Pilot surveys had previously been conducted in five countries (Germany, Finland, Norway, Greece and France) and this project allowed us to extend it to five new countries: UK, Italy, Spain, Belgium and Romania.

The pilot survey followed the validation survey in order to enable selection of the most appropriate instruments.

Phone interview strategy was chosen because of some advantages:

- No travel costs
- Minimal cautiousness by the participants (who are more reluctant to face to face interviews at home)
- Direct entry of the data which save entry costs and speed up availability of the data set
- Allows skip rules and quality control
- Phones are largely available, although mobile phone makes the method more complex but still feasible. Phone numbers were randomly dialled in order to avoid biases due to those on red lists but public sensibility to phone interviews varies across countries. This was not possible in UK where phone interviews are very expensive due to the difficulties to get people's acceptance and phone lists. In the remaining countries this was feasible.

Survey firms were selected for the general population pilot phone survey and the partners were supervising the firms' work. The survey firms were selected according to the following specifications:

- They had to be specialists in phone interview surveys.
- Random dial to fixed phones
- More than 15 calls to each number (to reach the selected subject)
- Calls from 2 to 9 pm plus Saturday mornings 9 to 15 (to decide with the Company and the cultural habits)
- 300 successful interviews (means that the subject answered the questionnaires)
- availability of software suited to this kind of study (to randomly select the phone numbers and to enter the questionnaires)
- A project manager or a coordinator in order to manage progress and give advice (could be the partners)
- Monitoring each week the of participation rates (delivering precise data about the refusals, the non-participants, fax numbers, unable to answer etc.)
- Monitoring of quality of the interviews (re-interview of 10 to 5 % of the sample and asking about the quality of the interview)
- Provision of possibility to listen in real time to some interview conversations.

The interviewed subjects had to be 18 years or over. The following groups were excluded:

- People who had difficulties to hear
- People who did not understand questions or the subject of the questions
- Incoherent people who had odd talk
- People who were under alcohol or drug effect
- People with a physical illness which made them feel uncomfortable talking in phone

The content of the interview follows the validation results and was:

1. Socio-demographic characteristics: gender, age, education, family composition
2. Psychological measures
 - a. Sense of Mastery (7-items scale)
 - b. Psychological well-being and distress (3-subcales of SF-36)
 - c. Impairment (Role limitation items of the SF-36, question on lost work days)
3. CIDI-SF : Depressive and anxiety disorders plus some questions on suicide
4. Use of care including psychotherapy
5. Questions on alcohol and drugs problems using a WHO recommended instrument: ASSIST: Alcohol, Smoking, and Substance Involvement Screening Test
6. Oslo 3-item social support scale, Social isolation scale (4) and Long lasting difficulties

2. Results

2.1. Results from part 1: Validation

a. Final Sample:

All persons aged 18 years and over and fitting the selection criteria were eligible to take part. Using an approach well established in local primary care research, GPs handed out study information sheets to those attending their clinic, and then approached them confidentially to enquire if they were interested to take part. Recruitment continued until 120 participants had been recruited.

Table 2. Methodology conditions by countries

Countries	Sample Size	Type of sample	Interviewers
Italy	120	Adult population attending a general practitioner's office	- 2 interviewers team with an interviewer post graduating in psychiatry and a graduated physician or medicine.
Romania	120	Adult population attending general practitioners (in collective setting)	- 2 groups of 2 psychiatrists (2 of them were residents).
Spain	119	Adult population attending several general practitioners at a primary care centre	- 1 senior psychiatrist (PhD), with experience in structured and semi-structured interviews - 3 PhD student (2 resident of Psychiatry and 1 doctor with clinical experience)
France	141	Adult population waiting for general practitioners or specialists (the MGEN Public Health mutual insurance centre).	- 1 psychiatrist with experience in structured and semi-structured interviews - 4 students in Psychology (Master 1) and 1 psychologist (PhD Student)
Total	500		

The diagnoses were computed for five types of disorders:

- Major depressive disorder
- Mood Disorders encompass a extended group adding to Major Depressive Disorder, Mood Disorder due to a General Medical Condition and Dysthymia
- Generalised anxiety
- Any Anxiety Disorder:
- Any disorders which includes all these diagnoses

The disorders could be on lifetime period (SCID-I/NP), one year period (CIDI SF) or current (CIS –R and SCID-I/NP) which render comparisons more difficult so SCID-I/NP was used in the current episode only which is similar to CIS R but different from the one year period covered by CIDI SF.

Table 3.

All countries (n=500)		SCID-I		CIDI-SF*		CIS-R	
	Types of disorders	n	%	n	%	n	%
		ANXIO DEPRESSIVE DISORDERS	Major Depressive Disorder Lifetime	107	21,4%		
	Mood Disorder [†] Lifetime	115	23,0%				
	Mood Disorder [†] Current	39	7,8%	68	13,6%		
	Severe Major Depressive Disorder	31	6,2%	16	3,2%	24	4,8%

Current

Any Anxiety Disorder Lifetime	157	31,4%				
Any Anxiety Disorder ^{††} Current	117	23,4%				
General Anxiety Disorder Current	22	4,4%	23	4,6%	47	9,4%
Any diagnosis Lifetime	214	42,8%				
Any diagnosis Current	132	26,4%	190	38,0%	71	14,2%

* For CIDI-SF one year prevalence

† Mood Disorder: Major Depressive Disorder, Mood Disorder due to a General Medical Condition and Dysthymia.

†† Any Anxiety Disorder: any Phobia (Specific, Social, Agoraphobia with or without Panic), General Anxiety Disorder, Panic Disorder, Posttraumatic Stress Disorder, Anxiety Disorder Not Otherwise Specified and Anxiety Disorder due to a General Medical Condition.

The analyses show that according to the gold standard (SCID-I/NP) there are large differences in prevalence between samples, which do not appear using CIS R but show up with CIDI SF.

The concordance measures were computed using the Kappa test and produce the results in the following tables. First line is for the data pooled together, following lines are by country, since they were few cases by country only any current diagnoses are presented for the diverse instruments.

Table 4	% SCID	% CIDI -SF	Sens.*	Spec.**	Kappa	SE	95% CI	
Any diagnosis Current								
All Countries	26,4%	38,0%	0,66	0,72	0,33	0,04	0,25	0,42
Italy	39,2%	32,5%	0,55	0,82	0,39	0,09	0,21	0,56
Romania	27,5%	27,5%	0,58	0,84	0,41	0,09	0,24	0,59
Spain	31,9%	42,0%	0,74	0,73	0,43	0,09	0,25	0,60
France	9,9%	48,2%	1,00	0,57	0,21	0,05	0,11	0,31

* Sensitivity

** Specificity

	% SCID	% CIS-R	Sens.*	Spec.**	Kappa	SE	95% CI	
Any diagnosis Current								
All Countries	26,4%	14,2%	0,32	0,92	0,28	0,04	0,20	0,36
Italy	39,2%	15,0%	0,32	0,96	0,31	0,08	0,17	0,46
Romania	27,5%	15,0%	0,33	0,92	0,29	0,09	0,13	0,46
Spain	31,9%	14,3%	0,32	0,94	0,30	0,08	0,14	0,46
France	9,9%	12,8%	0,29	0,89	0,16	0,08	-0,01	0,32

* Sensitivity

** Specificity

Globally the CIDI SF gives better results than CIS R specially taken in account the fact that he is covering an identical period when it is not exactly the case for CIDI SF in accordance with the previous study conducted by the UK team. In addition the interviewers consistently report to be more at ease with CIDI than CIS R and. So CIDI SF was selected for the pilot study. For France results were no so good but the prevalence was lower since we found 14 cases only, rendering the comparisons difficult to interpret

Comparing the scores across countries show no differences when all samples are pooled together but differences appear when cases only are selected, showing that the instrument is not perceived the same way in the diverse countries.

Conclusion: CIDI SF seems to act better than CIS R for measuring anxio-depressive DSM IV diagnoses in general population surveys. According the number of cases inter country comparisons were done on being a case only and the results seem globally identical across countries were prevalence were similar. As a consequence, it is not possible from this study to check the results for each diagnostic category.

So we recommend using the CIDI SF for European surveys

Results from part 2: The pilot survey

The procedure and samples are described in the following table

Table 5. Methodology conditions for the Pilot Study by countries

Countries	Sample Size	Type of sample	Interviewers	Mode of administration	Methodology	Commentaries
Italy	300	Adults from general population (from Sardinia)	Associazione Universita Europea del Mediterraneo,Cagliari	Telephone	A random sample of telephone numbers of the national telephone company + Kish method	
Romania	664	Adults from general population (all Romania)	S. C. GfK Romania market institute	Telephone	A random sample of telephone numbers of the national telephone company + Kish method	Abandoning of the questionnaire due to ASSIST
Spain	300	Adults from general population (Galicia)	Questdata, Society for phone telemarketing	Telephone	A random sample of telephone numbers of the national telephone company+ Kish method	
Belgium	280	Adults from general population (French areas)	Phonecom telemarketing	Telephone	A random sample of telephone numbers of the national telephone company+ Kish method	Clear list of French population areas telephone numbers
United Kingdom	300	Adults from residential areas (South of London)		Face-to-face	Three residential areas in South London; different socio-demographic characteristics + Kish Grid	Problem with the face-to-face administration and the Kish method
Total	1844					

Survey Mental Health Indicator
MGEN public Health Foundation , Paris 5 University

First follow-up statistics of the pilot survey (provisional)

	Romania		Belgium	
	Total	Percent.	Total	Percent.
Primary list with phone numbers	18960		19848	
Number of contacts	10144		10038	
Errors and Unassigned numbers	444		854	
No answer (more than 15 attempts)	5371		6969	
Busy (more that 15 attempts)	534		.	
Not household	46		.	
Not mother tongue	46			
Potential sample	3703			
numbers not contacted	354			
Final Potential sample	3349		2414	
Immediate refusal	1235	36.8%	987	40,8%
Deferred refusal or drop out during the questionnaire	725	21.6%	169	7%
Participation refusal after explanation	725	21.6%	956	39,6%
Successful interviews	664	19.8%	300	12,4%

The first results show an important difficulty in obtaining participation. The mental health subject is responsible for a sizable portion of interruption in Romania mainly due to questions on alcohol and drugs from ASSIST to which people were reluctant to answer. In Romania the population is skewed toward the most educated population.

These very first results do not correspond to what is experienced in other surveys although participation rates are dropping down in many countries. We are still expecting results from the three participating countries, which may be better.

Conclusions

Surveys have to be done if mental health is to be monitored as well as its determinants. We recommend CIDI SF as useful, clinically meaningful, and comparable instrument across the diverse EU countries.

Attention has to be given in order to stimulate participation of the people to surveys other wise results are not to be scientifically useful. A reflection on how to increase participation has to be conducted in order to be able to monitor health.