STAKES

MINDFU - Mental health information and determinants for the European level

MINDFUL Project Recommendations for the European Health Interview Survey (EHIS) Health Determinants Module

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Rationale

Mental and physical health is determined by a multitude of biological, behavioural, psychological and social factors. A broad surveillance of health determinants in the European population is crucial for health policy. The importance of psycho-social health determinants in increasing. Many of these determinants are common to mental health and physical health.

The current proposal for the European Health Interview Survey (EHIS) Health Determinants Module (EHDM) focuses on physical determinants of health, such as exercise, nutrition, smoking, alcohol and drug use. These are important health determinants, but research indicates that psycho-social factors may be even more important. Psycho-social factors interact with behavioural health determinants; people with a high level of psychosocial risk factors use more alcohol, smoke more, and exercise less.

The MINDFUL project strongly recommends that Eurostat takes a modern view on health determinants and expands the Determinants Module to encompass the following population measures of psychosocial determinants of mental health (presented in priority order):
1. Sense of mastery (7 items)
2. Social support (3 items)
3. Life events (12 items)
4. Self-esteem
5. Childhood adversities

1. Sense of mastery

The health determinant "Sense of mastery" is included in the ECHI short list, section 3.1.2. (shortlist section 4).

Sense of mastery is a form of perceived personal control, a sense of control over the events in one's life. Low levels of sense of mastery have been linked to mental and general ill-health. A high level of sense of mastery is associated with positive mental helth. Sense of mastery acts as a mediator between stress factors and various health outcomes.

Measurement: Sense of mastery is measured with seven item scale developed by Pearlin and Schooler [1]. Each item is ranked on a four-point scale ranging from "strongly agree" to "strongly disagree". The coding on the last two items is reversed. The responses to all items are summed (maximum score is 28). High scores indicate superior mastery and scores of less than 20 are categorized as having low mastery [2].

Use in population surveys: Pearlin's Sense of Mastery scale has been extensively used in population studies, e.g. in the Canadian National Population Health Survey 1994/95 [3], 2000/01, 2002/03 and 2004/05; in the US National Longitudinal Survey of Youth (1992), and in the US Survey "Children of the National Longitudinal Survey of Youth" 1994, 1996, 1998, 2000, and 2002. A shorter, non-validated five-item version was used in the European Mental Health Indicators Pilot Study [4]. However, as the properties of the shorter scale have not been clarified, MINDFUL recommends use of the seven-item version.

Validity: Low level of mastery has been shown to have a positive correlation with mental and general ill-health [2, 3, 4, 5, 6], e.g with general health [7] and with depression [1] .

High level of mastery is positively associated with measures of social support and coping (2).

In the Canadian population, male respondents tend to show a higher level of sense of mastery, and sense of mastery declined with increasing age ([8]). The same study also found a high negative correlation between perceived mastery and current stress. Also low level of social support and perceived childhood adversities were associated with a low level of perceived mastery.

Reliability: The scale has evidenced satisfactory internal reliability (Cronbach's ἀ = 0,76) in the Canadian population survey (3). Correlations (LISREL) between sense of mastery scores at time 1 and at time 2 four years later was 0.44 (2).

Instrument. The instrument is already available in several European languages.

The personal mastery scale
"In the following I will present you 7 statements about your experience of your ability to control and master things in your life. I will present you with 4 options for each statement. Do not spend too much time thinking about your answer as your immediate response is likely to be the most accurate."
"I would like you to tell me whether you "strongly agree", "agree", "disagree", or "strongly disagree".

1. There is really no way I can solve some of the problems I have.
2. Sometimes I feel that I'm being pushed around in life.
3. I have little control over the things that happen to me.
4. I can do just about anything I really set my mind to.
5. I often feel helpless in dealing with the problems of life.
6. What happens to me in the future mostly depends on me.
7. There is little I can do to change many of the important things in my life.

2. Social Support

The indicators "Social support" and "Social isolation/participation" are included in the ECHI list, section 3.3.3. (shortlist section 2)

Social support is a protective factor in times of stress. Low levels of social support have been linked to increased rates of depression, somatic illnesses and mortality.

Social support has been proposed to buffer against stress outcomes and depression. Prospective studies do not provide much support to the stress-buffering hypothesis, but

indicate that social support has an independent influence on mental health (i.e. chronic strain hypothesis) (9).

Measurement: The instruments suggested for measuring social isolation and social support by ECHI-2 and previous mental health information projects have less than satisfactory scale properties.

The three-item Oslo-3 scale was suggested for measuring social support by previous mental health indicator projects. The European Mental Health Indicator pilot survey evidenced that the internal reliability of this three-item instrument is unsatisfactory (Cronbach's alpha is low). MINDFUL recommends that the three questions of the Oslo-3 instrument are included in the EHDM. However, these items should not used for calculating a sum score, as the three questions measure separate dimensions of social support.

The four-item instrument developed by Statistics Canada was suggested for measuring social isolation by previous mental health indicator projects. The pilot survey of the European Mental Health Indicator project confirmed previous findings from Canada, which show that the instrument has an unsatisfactory sensitivity. Approx. 85 % of respondents score maximally. This ceiling effect makes the instrument unsuitable for longitudinal surveys. MINDFUL does not recommend inclusion of this instrument.

Social support can also be measured with the six item Brief Social Support Questionnaire (BSSQ). This is an abridged version of Social Support Questionnaire (27 items) (10). The first part of each item assesses the number of available others the individual feels he/she can turn to in times of need. The second part of each item measures the individual's degree of satisfaction with the perceived support available.

Instrument. The three questions from Oslo-3 exist in most European languages, because they were included in Eurobarometer 58.2.

"In the following I will make 3 questions about how your experience your social relationships. I emphasise that I am inquiring about your immediate, personal experience. Choose one of the options I give for each question."

1) How many people are so close to you that you can count on them if you have serious personal problems (choose one option)?
    1. None
    2. 1 or 2
    3. 3-5
    4. More than 5

2) How much concern do people show in what you are doing (choose one option)?
    5. A lot of concern and interest
    4. Some concern and interest
    3. Uncertain
    2. Little concern and interest
        1. No concern and interest

3) How easy is it to get practical help from neighbours if you should need it (choose one option)?
    5. Very easy
    4. Easy
    3. Possible
    2. Difficult
    1. Very difficult

Use in population surveys: Oslo-3 has been used in Eurobarometer 58.2, in the European Mental Health Indicator Pilot Survey and in several national surveys.

3. Life events

Life events is included in the ECHI list, section 3.3.3. (shortlist section 4)

Threathening life events is major determinant of stress-related and depressive mental disorders, but is also associated with physical disorders.

Life events can be defined as major occurrences in one's life that require psychological adjustment to some degree. Studies indicate that major life events judged as undesirable, uncontrollable or life threatening are risk factors for mental ill-health and physical illnesses.

Measurement: Life events are measured by the 12-item List of Threatening Experiences (survey measure probing various stressful events in a person's life (11).

Use in population surveys: Has been used in several population surveys (12,13,14,15).

Validity: Concurrent validity: for events prior 6 months to the data collection the sensitivity was 0.89 and specificity 0.74 using Bedford College Life Events and Difficulties Scales (LEDS) as a gold standard, for events 3 months to the data collection the sensitivity was 0.89 and 0.74 respectively (11).

Reliability: Cohen's κ values ranged between 0.78 and 1 for the 12 items. Agreement ratings with other informants on the events reached Cohen's κ values ranging from 0.7 to 0.9. Agreement of LEDS interview with relative informants` LTE ratings at 3 months was 0.84 and at 6 months 0.66 (11).

Instrument: The List of Threatening Experiences ia available in most European languages. "In the following I will inquire about events that may or may not have happened to you during the last **six months**. You may give the answer by simply stating, "yes" or "no" to each item. Have any of the following events or problems happened to you during the last 6 months?"

Life event	YES (=0)	NO (=1)
You yourself suffered a serious illness, injury or assault		
A serious illness, injury or assault happened to a close relative		
Your parent, child or spouse died		
A close family friend or another relative (aunt, cousin, grandparent) died		
You had a separation due to marital difficulties		

| You broke off a steady relationship |
| You had a serious problem with a close friend, neighbour or relative |
| You became unemployed or were seeking work unsuccessfully for more than one month |
| You were sacked from your job |
| You had a major financial crisis |
| You had problems with the police and a court appearance |
| Something you valued was stolen or lost |

MINDFUL recommendation: Cutpoint: 2 events within half a year

4. Self-Esteem Scale

Self-esteem is a major component in positive mental health and a determinant of mental health. Regrettably, self-esteem is not included among the ECHI indicators.

Background: Global self-esteem is defined as one's overall sense of worthiness as a person. Self-esteem is negatively associated with neuroticism (negative emotionality) and functions thus as an anxiety buffer. Self-esteem consists of two dimensions: self-liking (the self as a social object, sense of self as a good person, as socially relevant contributing to group harmony) and self-competence (self as a causal agent, sense of self-confidence and capability, efficaciousness). Individualistic cultures may give emphasis to self-competence whereas collectivist cultures may give emphasis to self-liking.

Description: 10-item survey indicator, Rosenberg Self Esteem Scale (SES). Items are answered on a four point scale - from strongly agree to strongly disagree. It displays a transparent factor structure and has been translated to most Indo-European languages.

Use in population surveys: SES was recently used in a survey study among 53 nations from different cultures (16). SES is the most widely used measure of self-esteem.

Validity: Factor structure has been fairly well replicated across many nations and several cultures (average Tucker's congruence = 0.987). Negatively associated with neuroticism (negative emotionality) and positively associated with extraversion (positive emotionality).

Reliability: Mean reliability across several nations α = 0.81. Guttman split-half reliability = 0.73.

Instrument: Further information can be found at http://www.bsos.umd.edu/socy/grad/socpsy_rosenberg.html

BELOW IS A LIST OF STATEMENTS DEALING WITH YOUR GENERAL FEELINGS ABOUT YOURSELF. IF YOU **STRONGLY AGREE**, CIRCLE **SA**. IF YOU **AGREE** WITH THE STATEMENT, CIRCLE **A**. IF YOU **DISAGREE**, CIRCLE **D**. IF YOU **STRONGLY DISAGREE**, CIRCLE **SD**.

		1. STRONGLY AGREE	2 AGREE	3. DISAGREE	4. STRONGLY DISAGREE
1.	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
2.	I feel that I have a number of good qualities.	SA	A	D	SD
3.	All in all, I am inclined to feel that I am a failure.**	SA	A	D	SD
4.	I am able to do things as well as most other people.	SA	A	D	SD
5.	I feel I do not have much to be proud of.**	SA	A	D	SD
6.	I take a positive attitude toward myself.	SA	A	D	SD
7.	On the whole, I am satisfied with myself.	SA	A	D	SD
8.	I wish I could have more respect for myself.**	SA	A	D	SD
9.	I certainly feel useless at times.**	SA	A	D	SD
10.	At times I think I am no good at all.**	SA	A	D	SD

MINDFUL Recommendation: The mean of SES can be used for international benchmarking

5. Childhood adversities

Childhood adversities are significantly associated with physical and mental ill health.

Description: Survey indicator (17). MINDFUL suggests a five-item instrument from the U.S. National Comorbidity Study (NCS).

Instrument:
1.You were raped (someone had sexual intercourse with you when you did not want to by threatening you or using some degree of force) (<18 years of age)

2.   You were sexually molested (someone touched you or felt your genitals when you did not want them to) (<18 years of age)
3.   You were physically abused as a child
4.   You were seriously neglected as a child

Use in population surveys: Has been used as a measure in the U.S. National Comorbidity Survey: Life event history section (17).

Validity: Correlates positively with major depression (OR= ca. 3) and cardiovascular diseases (OR= ca. 9).

Reliability: No studies reporting reliability are available.

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