**Insomnia Severity Index (ISI)**

The ISI is a brief self-report scale measuring the patient's subjective symptoms and consequences of insomnia 1. This instrument investigates the severity of sleep onset/sleep maintenance/early morning awakening problems, sleep dissatisfaction, difficulties with daytime functioning, noticeability of sleep problems by others and distress caused by the sleep difficulties. Each item has a 5-point Likert scale (e.g., 0 = no problem; 4 = very severe problem) and the total score, ranging from 0 to 28, is interpreted as follows: absence of insomnia (0–7); sub-threshold insomnia (8–14); moderate insomnia (15–21); and severe insomnia (22–28) 2 Both the original and the Italian3 ISI scale versions have been validated and proved to have good psychometric properties.

**5-level EuroQol 5-dimensional questionnaire (EQ-5D-5L)**

The EQ-5D-5L is a brief subjective health status measure composed of two different parts: a descriptive system that consists of 5 questions with Likert response options and a visual analog scale (EQ-VAS) 4. The descriptive system evaluates the following dimensions: mobility, self-care, usual activities, pain/discomfort and anxiety/depression. Every single item has 5 subitems (no problems, slight problems, moderate problems, severe problems and extreme problems). The EQ-VAS consists of a vertical visual analogue scale, whose extremes correspond to ‘The best health you can imagine’ and ‘The worst health you can imagine’(Feng et al., 2021).

**Sheehan Disability Scale (SDS)**

The SDS was released in 1983 as a brief measure of functional impairment applicable in different psychiatric disorders. It is a five-item, self-rated questionnaire that aims to measure the interference degree of a patient’s disability, illness or health problem on work/school, social life/leisure activities, and family life/home responsibilities during the past week. The first three items highlight how much symptoms influence a patient’s regular activities through a rating scale ranging from 0 (not at all) to 10 (extremely). Subscales are combined into a single total score from 0 to 30 representing the patient's global impairment.

The two last items, not included in the total score, ask the patient about the number of school/work days lost due to symptoms and how many days his symptoms made him less productive 6.

**Montgomery Asberg Depression Rating Scale (MADRS)**

The MADRS was developed by Montgomery and Asberg in 1979 7. It analyses the psychological symptoms of depression (e.g. sadness, tension, and pessimistic thoughts) and is made up of 10 items; each one is rated from 0 to 6, resulting in a maximum total score of 60 points. A result between 0 and 6 points represents a patient without depression, from 7 to 19 with “mild depression,” from 20 to 34 “moderate depression,” from 35 onwards “severe depression”, and a total score of 60 indicates “very severe depression” 8.

**Young Mania Rating Scale (YMRS)**

The YMRS was built up by Young in 1978 and it is an 11-item clinician-administered rating scale with five grades of severity 9. The analysed dimensions are: mood, motor activity/energy levels, interest in sex, sleep, irritability, rate and frequency of speech, flight of ideas, grandiosity, aggressive behaviour, appearance, and insight into current presentation. The first 7 items range from 0 to 4; while the other 4 from 0 to 8, and the total score is 0-60. A result ≤12 indicates remission, 13-19 minimal symptoms, 20-25 mild mania, 26-37 moderate mania and 38-60 severe mania (Lukasiewicz et al., 2013).

**Mini-International Neuropsychiatric Interview (M.I.N.I.)**

The M.I.N.I. is a structured diagnostic interview, developed in the United States and Europe, based on DSM-IV and ICD-10 criteria for the diagnosis of the 17 most common psychiatric disorders. Its administration time is about 15 minutes, thus is a short but accurate clinical instrument. Validation and reliability studies have been done 11.

**Personality Inventory for DSM-5-Brief Form (PID-5-BF)**

The PID-5-BF is an assessment instrument developed to detect patients’ maladaptive personality traits based on DSM-5 12. It investigates 5 principal traits (negative affectivity, detachment, antagonism, disinhibition and psychoticism) through 25 sentences: patient rates each of them from 0 (very/often false) to 3 (very/often false). The reliability and construct validity of the Italian version were assessed 13.

**Montreal Cognitive Assessment (MoCA)**

The MoCA is a short screening instrument developed for the detection of mild cognitive impairment 14. It examines six different cognitive domains: executive functions, visuospatial abilities, attention, verbal fluency, memory, and spatio-temporal orientation. The total score of the MoCA, which varies from 0 to 30, provides a global assessment of the cognitive performance of the subject. Regarding psychiatric disorders, the MoCA has proven to be valuable to assess cognitive impairment in patients with depression, bipolar disorder and schizophrenia15. We used the validated Italian version of MoCA (Pirrotta et al., 2015).

**Depression Anxiety Stress Scales (DASS-21)**

The original Depression Anxiety Stress Scales-42 (DASS-42) was developed by Lovibond and Lovibond 17 to maximise discrimination between self-reported anxiety and depression. Antony et al. (1998) subsequently confirmed that the shorter version, the DASS-21, provides a relevant measure of negative emotions that include mixed symptoms of depression, anxiety, and stress. It consists of 21 items, rating from 0 (never happened) to 3 (almost always), divided into three subscales (depression, anxiety and stress), whose score is calculated by summing up the single sentence’s points and multiplied by 2 to get the final score.

Recommended cut-off scores are as follows: depression 0-9 normal, 10-13 mild, 14-20 moderate, 21-27 severe, >28 extremely severe; anxiety 0-7 normal, 8-9 mild, 10-14 moderate, 15-19 severe, >20 extremely severe; stress 0-14 normal, 15-18 mild, 19-25 moderate, 26-33 severe, >34 extremely severe. We used the validated Italian version of DASS-21 18.

**Impact of Event Scale-Revised (IES-R)**

The Impact of Event Scale-Revised (IES-R) was developed by Daniel Weiss and Charles R. Marmar in 1996 (19 e used the IES-R to assess PTSD symptoms.

It is a self-administered test that consists of 22 items, scoring on a five-point Likert scale, and divided in three subscales (respectively investigating intrusion, avoidance and hyperarousal symptoms in the last 15 days). A score of 33 or higher on the IES-R is suggestive for a provisional diagnosis of PTSD, while a score of 24 or higher has been used to indicate partial PTSD 20 The Italian version of IES-R has been extensively validated 21.

**Hamilton Anxiety Rating Scale (HAM-A)**

Hamilton Anxiety Rating Scale (HAM-A) was designed to quantitatively assess the severity of anxiety symptoms by M. Hamilton in 1959 22. It consists of 14 items each representing a cluster of several symptoms (2 to 8) related to each other and the evaluated period is the week before.

Each item is rated on a 5-point scale ("absent," "mild," "moderate," "severe," "very severe").

The scale score can range, therefore, from 0 to 56. A total score higher than 17 is considered pathological.

Validity and reliability of the Italian version are proved.

**Hamilton Depression Rating Scale (HAM-D)**

The Hamilton Depression Rating Scale was structured by M. Hamilton in 1960 to provide a simple way to quantitatively assess the severity of depressive symptoms during the last week and to document their changes 23. It consists of 21 items variously rated: some (10) on a 5-point scale (0-4), some (2) on a 4-point scale (0-3) and the remaining (9) on a 3-point scale (0-2). The severity cutoff can be schematized as follows: ≥25 severe depression, 18-24 moderate depression, 8-17 mild depression, ≤7 no depression.

**Post-traumatic growth Inventory-Short Form (PTGI-SF)**

Tedeschi and Calhoun (1996) developed the Posttraumatic Growth Inventory (PTGI) to assess post-trauma growth and self-improvement a person undergoes.24.

Post traumatic growth was investigated through the Italian version of the PTGI-SF 25 a reduced version of the Post Traumatic Growth Inventory 26 aimed to assess post-traumatic growth features across five dimensions: appreciation of life, relating to others, personal strength, spiritual change, and new possibilities. The 21 items are coded on a 6-point Likert scale, with greater scores relating to higher levels of post traumatic growth.

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