

Supplementary file 1: Study instruments

Wong-Baker Faces_ Pain Rating Scale (WBFPRS): It is consisted of six faces showing the effect of the pain on individual's emotion. This instrument is widely used in pediatric researches and could get a score from 0 (no pain at all) to 5 (severe pain). For using this instrument, the child was asked to show the face that could better describe him/her during the episodes of pain (1).

Children's Depression Inventory (CDI): This instrument is consisted of 27 items; each could be scored from 0 to 2 and includes 5 different subscales. This inventory would finally provide a total score ranged from 0 to 54 with higher scores indicative of more depressive symptoms (2).

Revised Children's Manifest Anxiety Scale (RCMASTM): This survey contains 37 items: 28 items assess the severity and type of the stress in the child in three different subscales and the remaining 9 items assessing the truthfulness of responses, which itself shows another type of stress. Each item could be answered as yes (1 point) or no (0 point). The final score based on the main 28 questions determine the level of anxiety in the child with more severe anxiety for higher scores (3).

Children's Somatization Inventory-Revised Form (CSI-24): Also known as Children's Somatic Symptoms Inventory (CSSI), is consisted of two forms for the patient and their parents regarding the patient's symptoms. This tool asks for the frequency of experiencing 24 symptoms of somatization in the past 2 weeks in Likert scale, with 0 meaning not at all to 4 meaning really a lot. This instrument can measure the somatization in the subscales of gastrointestinal (GI) and non-GI symptoms and could provide a total score of 0 to 96 with higher scores indicative of more somatization in the child (4, 5).

Clinical Global Impression Severity and Improvement scales (CGI-S, CGI-I): These brief scales contain 7 possible situations that a patient can have regarding the severity of the illness (for

CGI-S), and improvement of the disease through the administered medication (for CGI-I). A single physician subjectively gives each patient a score from 1 to 7 in CGI-S scale (normal to among the most extremely ill patients respectively), and in CGI-I scale (with so much improved to very much worse, respectively) (6).

Sleep Disturbance Scale for Children (SDSC): This questionnaire contains 29 items assessing different aspects of sleep problems and each item can get a score from 1 to 5 based on a Likert scale. A total score would be obtained by adding up the scores from all 29 questions. Higher scores show more severe sleep problems in the child. This scale can determine sleep disturbances in 6 different sub scales of sleep onset and maintaining problems, disorders of arousal from sleep, breathing problems during sleep, sleep-wake transition abnormalities, excessive somnolence, and hyperhidrosis during sleep (7).

Farsi translation and standardization processes of RCMASTM and CSI-24 questionnaires:

We standardized these two questionnaires and assessed the validity and reliability of their Persian version in a pilot study. We followed the standard suggested validation process including translation, translation back, asking for expert opinions, and evaluating children's perception on the questions. We assessed RCMASTM on 108 children aged 6 to 18 years old, and CSI on 67 children with the same age range and their parents. Reliability of the questionnaires using the internal consistency method through Cronbach's alpha were obtained. Cronbach's alpha for RCMAST total scale was 0.8, and above 0.6 for its three subscales. Also, CSI children and parents' forms showed a Cronbach's alpha of 0.9. So, the validity and reliability of both questionnaires were confirmed.

References:

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