



Development and Evaluation of a Psychomotor Rehabilitation Nursing Plan for the Elderly with Mild Cognitive Impairment to Promote Cognitive Health

February 2025

Protocol ID: JZMULL2025230

Ethics Approval Number: USM/JEPeM/PP/24090806

RESEARCH INFORMATION

Research Title: Development and Evaluation of a Psychomotor Rehabilitation Nursing Plan for the Older

Adults with Cognitive Impairment to Promote Cognitive Health

Name of main and co-Researcher :

Main researcher: Wang Ying (China Health Professional Qualification no. for nursing: 2017121702320300001; China Health Professional Qualification no. for rehabilitation: 3022022072107022)

Co-researcher / Supervisor : Dr. Noor Mastura Binti Mohd Mujar (GCP no. 841129-08-5022)

INTRODUCTION

With the aging of the population, the number of older adults with mild cognitive impairment (MCI) has increased year by year, which has caused serious social and family burdens. At present, the existing drug treatment effect is limited. Studies show the application value of non-drug treatment in the older adults with mild cognitive impairment.

You (your family) are invited to take part voluntarily in an interventional research. This research is about to investigate a psychomotor rehabilitation nursing intervention plan to promote cognitive performance in older adults.

It is important that you read and understand this research information before agreeing to participate in this study. You will receive a copy of this form to keep for your records if you agree to participate.

Your participation in this study is expected to 3 months. This study is estimated to include up to 76 participants.

PURPOSE OF THE STUDY

The purpose of this study is to determine whether a PMT rehabilitation nursing plan is effective in improving the cognitive status of older adults.

PARTICIPANTS CRITERIA

The research team members will discussed your eligibility to participate in this study. It is important that you are completely truthful with the staff including your health history.

Inclusion criteria: 1. Older adults are aged 50 years and above. 2. Subjective cognitive complaints from the individual or caregiver. 3. Screening for MCI using the Mini-Cog scores between 0-2. 4. Basic language communication, listening, speaking, and understanding skills. 5. Ability to provide informed consent.

Exclusion criteria: 1. Diagnosed with severe psychiatric conditions (e.g., schizophrenia, major depressive disorder). 2. It is at the end stage of important functional organ diseases, such as malignant tumors, cardiac failure, etc. 3. Limb dysfunction. 4. Diagnosed with dementia.

Withdrawal criteria: 1. Withdrawal of consent by the participant. 2. Non-compliance with study requirements (e.g., missing >25% sessions). 3. Significant health deterioration affecting participation.

STUDY PROCEDURES

Older adults will be engaged in a 12-week PMT rehabilitation nursing plan involving 2 phases of relaxation and breathing exercises, face exercises, hand exercises and mind exercises to promote cognitive health. Phase 1 (Weeks 1-6): Includes relaxation and breathing exercises (10 minutes), facial exercises (10 minutes), bead maze activities (10 minutes), geometric shape puzzles (10 minutes), and finger exercises (20 minutes). Phase 2 (Weeks 7-12): Includes relaxation and breathing exercises (10 minutes), Tai Chi ball exercises (10 minutes), screw and nut assembly activities (10 minutes), tangram puzzles (10 minutes), and

upper limb music exercises (20 minutes). The experimental group will be given interventions, twice a week every Tuesday and Thursday 9-10 am along with the study intervention. Meanwhile, the control group will be given a standard health education on cognitive health.

I will use a questionnaire to assess cognitive status. First, I will collect some personal and social information from you. There are 7 questions in total, which will take no more than 5 minutes. Then, I will conduct questionnaire surveys before the intervention (baseline) and after the intervention (12 weeks). The questionnaires involved include MoCA, which has 11 questions and takes about 10 minutes; PANSS, which has 30 questions and takes about 20 minutes; HAMA-14, which has 14 questions and takes about 10 minutes; HAMD-17, which has 17 questions and takes about 15 minutes. All questionnaires will take no more than 60 minutes.

Participants are required to attend the intervention sessions on time, undergo regular cognitive assessments, and provide necessary health information and feedback. Participants are expected to cooperate with the research team and follow the study protocol.

RISKS

1. Fall or Injury Risk: Older adults may have weaker muscle strength, balance, and coordination, which makes them more prone to falls or injuries during rehabilitation activities. If participants fall or are injured during the intervention, necessary medical support will be provided.
2. Feelings of Frustration: If older adults do not experience the expected progress during rehabilitation, they may develop feelings of frustration, disappointment, or reduced self-efficacy. If participants experience any discomfort, psychological support will be provided, and they may withdraw from the study at any time.

REPORTING HEALTH EXPERIENCES.

Please contact, at any time, the following researcher if you experience any health problem either directly or indirectly related to this study.

Wang Ying [China Health Professional Qualification no. for nursing: 2017121702320300001; China Health Professional Qualification no. for rehabilitation: 3022022072107022] at <phone No. +86 18640669145>.

PARTICIPATION IN THE STUDY

1. Your taking part in this study is entirely voluntary. You may refuse to take part in the study or you may stop your participation in the study at anytime, without any penalty or loss of benefits to which you are otherwise entitled.
2. Your participation also may be stopped by the research team without your consent if in any form you have violated the study eligibility criteria. The research team member will discussed with you if the matter arises.
3. Participants will be compensated for any medical expenses related to study interventional-related injuries, and all healthcare costs incurred due to study interventional-related events will be covered by the research team.
4. If the participant experiences disability or death due to a study interventional-related injury, the participant or their family will receive appropriate compensation as per the study's legal coverage.

POSSIBLE BENEFITS [Benefit to Individual, Community, University]

1. This study finding may benefit older adults who live in care institutions, rehabilitation hospitals, communities, and families to improve physical function and promote cognitive function.
2. It can lower societal healthcare costs and long-term caregiving expenses and help delay the health decline of older adults, assisting society in addressing the health and economic challenges an aging population poses.
3. Older adults' participation in this study provides universities with important research subjects, advancing academic research, particularly in geriatric medicine, rehabilitation medicine, psychology, and nursing, and promoting the development and application of innovative intervention programs.
4. You will not receive any compensation from this study. However you may get reimbursement for your travelling cost while in the study duration.
5. If the study intervention is proven safe and effective, participants will be given the opportunity to continue receiving the intervention after the study concludes.

QUESTIONS

If you have any question about this study or your rights, please contact;

**Wang Ying & < China Health Professional Qualification no. for nursing: 2017121702320300001;
China Health Professional Qualification no. for rehabilitation: 3022022072107022 >
<Department of Community Health>
<Advanced Medical & Dental Institute>
<USM>
<Contact No. +86 18640669145>**

If you have any questions regarding the Ethical Approval or any issue / problem related to this study, please contact;

**Mr. Mohd Bazlan Hafidz Mukrim
Secretary of Human Research Ethics Committee USM
Division of Research & Innovation (R&I)
USM Health Campus
Tel. No. : 09-767 2354 / 09-767 2362
Email : bazlan@usm.my**

OR

**Miss Nor Amira Khurshid Ahmed
Secretariat of Human Research Ethics Committee USM
Research Creativity & Management Office (RCMO)
USM Main Campus, Penang
Tel. No. : 04-6536537
Email : noramira@usm.my**

CONFIDENTIALITY

1. Your information and study data will be kept confidential by the researchers and will not be made publicly available unless disclosure is required by law. At the end of the study, all personally identifiable information will be destroyed, and remaining data will be stored anonymously for future analysis.
2. Data obtained from this study that does not identify you individually will be published for knowledge purposes. Upon completion of the study, all participants will receive a summary report of the study findings, including any health-related recommendations.
3. Your original records may be reviewed by the researcher, the Ethical Review Board for this study, and regulatory authorities for the purpose of verifying the study procedures and/or data. Your information may be held and processed on a computer. Only research team members are authorized to access your information. Participants have the right to access their study-related records at any time, including health assessments and intervention progress reports.

OTHER

The investigator in this study serves as an investigator and the services provider for the study intervention.

By signing this consent form, you authorize the record review, information storage and data process described above.

SIGNATURES

To be entered into the study, you or a legal representative must sign and date the signature page **[ATTACHMENT S and ATTACHMENT P]**

**Subject Information and Consent Form
(Signature Page)**

Research Title: Development and Evaluation of a Psychomotor Rehabilitation Nursing Plan
for the Older Adults with Cognitive Impairment to Promote Cognitive Health

Researcher's Name : Wang Ying (China Health Professional Qualification no. for nursing: 2017121702320300001; China Health Professional Qualification no. for rehabilitation: 3022022072107022)

Co-researcher / Supervisor: Dr. Noor Mastura Binti Mohd Mular (GCP no. 841129-08-5022)

To become a part of this study, you or your legal representative must sign this page. By signing this page, I am confirming the following:

- I have read all of the information in this Patient Information and Consent Form **including any information regarding the risk in this study** and I have had time to think about it.
- All of my questions have been answered to my satisfaction.
- I voluntarily agree to be part of this research study, to follow the study procedures, and to provide necessary information to the doctor, nurses, or other staff members, as requested.
- I may freely choose to stop being a part of this study at anytime.
- I have received a copy of this Participant Information and Consent Form to keep for myself.

Participant Name

Participant I.C No

Signature of Participant or Legal Representative

Date (dd/MM/yy)

Name of Individual

Conducting Consent Discussion

Signature of Individual

Conducting Consent Discussion

Date (dd/MM/yy)

Name & Signature of Witness

Date (dd/MM/yy)

Note: i) All participants who are involved in this study will not be covered by insurance.

Participant's Material Publication Consent Form
Signature Page

Research Title: Development and Evaluation of a Psychomotor Rehabilitation Nursing Plan for the Older Adults with Cognitive Impairment to Promote Cognitive Health

Researcher's Name : Wang Ying (China Health Professional Qualification no. for nursing: 2017121702320300001; China Health Professional Qualification no. for rehabilitation: 3022022072107022)

Co-researcher / Supervisor: Dr. Noor Mastura Binti Mohd Mular (GCP no. 841129-08-5022)

To become a part of this study, you or your legal representative must sign this page.

By signing this page, I am confirming the following:

- I understood that my name will not appear on the materials published and there have been efforts to make sure that the privacy of my name is kept confidential although the confidentiality is not completely guaranteed due to unexpected circumstances.
- I have read the materials or general description of what the material contains and reviewed all photographs and figures in which I am included that could be published.
- I have been offered the opportunity to read the manuscript and to see all materials in which I am included, but have waived my right to do so.
- All the published materials will be shared among the medical practitioners, scientists and journalist world wide.
- The materials will also be used in local publications, book publications and accessed by many local and international doctors world wide.
- I hereby agree and allow the materials to be used in other publications required by other publishers with these conditions:
- The materials will not be used as advertisement purposes nor as packaging materials.
- The materials will not be used out of context – i.e.: Sample pictures will not be used in an article which is unrelated subject to the picture.

Participant Name

Participant I.C No.

Participant's Signature

Date (dd/MM/yy)

Name and Signature of Individual
Conducting Consent Discussion

Date (dd/MM/yy)

Note: i) All participants who are involved in this study will not be covered by insurance.

APPENDICES

Data Collection Form

Name:

ID :

Elderly's General information:

1.Sex

-Female : _____

-Male : _____

2.Age (years) : _____

3.Education Level

-Illiteracy : _____

-Primary school : _____

-Middle school : _____

-College or above : _____

4.Family history of dementia (Yes or No) : _____

5.Marital status

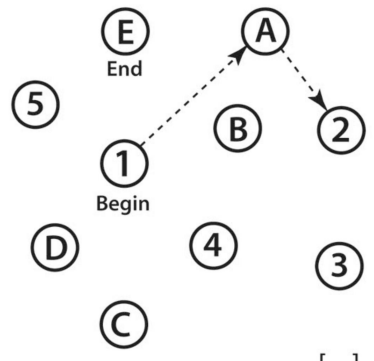
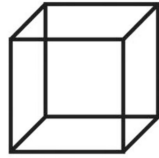
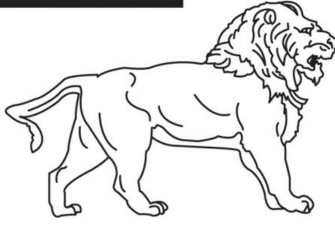
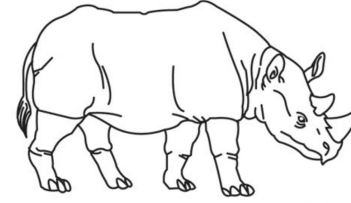
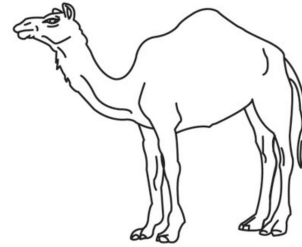
-Single / Divorced / Widowed : _____

-Married : _____

6.Personal annual income : _____

7.Chronic disease (Yes or No. If yes, please write the specific disease name)

: _____

VISUOSPATIAL / EXECUTIVE		NAMING		MEMORY		ATTENTION		LANGUAGE		ABSTRACTION		DELAYED RECALL		Optional		ORIENTATION		POINTS																																																																															
 <div style="text-align: center; margin-top: 20px;">[]</div>		 <div style="text-align: center; margin-top: 20px;">[]</div>		<p>Copy cube</p> <p>Draw CLOCK (Ten past eleven) (3 points)</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">[] Contour</div> <div style="text-align: center;">[] Numbers</div> <div style="text-align: center;">[] Hands</div> </div>		___/5		<div style="display: flex; justify-content: space-around;">    </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">[]</div> <div style="text-align: center;">[]</div> <div style="text-align: center;">[]</div> </div>		___/3		<p>Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th></th> <th>FACE</th> <th>VELVET</th> <th>CHURCH</th> <th>DAISY</th> <th>RED</th> </tr> <tr> <td>1st trial</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2nd trial</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>			FACE	VELVET	CHURCH	DAISY	RED	1st trial						2nd trial						No points		<p>Read list of digits (1 digit/ sec.). Subject has to repeat them in the forward order [] 2 1 8 5 4</p> <p>Subject has to repeat them in the backward order [] 7 4 2</p>		___/2		<p>Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors</p> <p style="text-align: center;">[] FBACMNAAJKLBAFAKDEAAAJAMOFAAAB</p>		___/1		<p>Serial 7 subtraction starting at 100 [] 93 [] 86 [] 79 [] 72 [] 65</p> <p style="text-align: center;">4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt</p>		___/3		<p>Repeat : I only know that John is the one to help today. []</p> <p style="text-align: center;">The cat always hid under the couch when dogs were in the room. []</p>		___/2		<p>Fluency / Name maximum number of words in one minute that begin with the letter F [] ____ (N ≥ 11 words)</p>		___/1		<p>Similarity between e.g. banana - orange = fruit [] train - bicycle [] watch - ruler</p>		___/2		<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>Has to recall words</th> <th>FACE</th> <th>VELVET</th> <th>CHURCH</th> <th>DAISY</th> <th>RED</th> <th rowspan="3">Points for UNCUED recall only</th> </tr> <tr> <td>WITH NO CUE</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> </tr> <tr> <td>Category cue</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Multiple choice cue</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		Has to recall words	FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUED recall only	WITH NO CUE	[]	[]	[]	[]	[]	Category cue						Multiple choice cue							___/5		<p>Optional</p>		<p>Date [] [] [] Month [] [] Year [] [] Day [] [] Place [] [] City [] []</p>		___/6		<p>© Z.Nasreddine MD www.mocatest.org Normal ≥ 26 / 30</p> <p>Administered by: _____</p>		<p>TOTAL ___/30</p> <p style="font-size: small;">Add 1 point if ≤ 12 yr edu</p>	
	FACE	VELVET	CHURCH	DAISY	RED																																																																																												
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POSITIVE AND NEGATIVE SYNDROME SCALE (PANSS)

ITEMS	SCORE
POSITIVE SCALE (P):	
P1. DELUSIONS - Beliefs which are unfounded, unrealistic and idiosyncratic.	<input type="checkbox"/>
P2. CONCEPTUAL DISORGANISATION - Disorganized process of thinking characterized by disruption of goal-directed sequencing, e.g. circumstantiality, loose associations, tangentiality, gross illogicality or thought block.	<input type="checkbox"/>
P3. HALLUCINATORY BEHAVIOUR - Verbal report or behavior indicating perceptions that are not generated by external stimuli. These may occur in the auditory, visual, olfactory, or somatic realms.	<input type="checkbox"/>
P4. EXCITEMENT - Hyperactivity as reflected in accelerated motor behavior, heightened responsivity to stimuli, hypervigilance or excessive mood lability.	<input type="checkbox"/>
P5. GRANDIOSITY - Exaggerated self-opinion and unrealistic convictions of superiority, including delusions of extraordinary abilities, wealth, knowledge, fame, power and moral righteousness.	<input type="checkbox"/>
P6. SUSPICIOUSNESS/PERSECUTION - Unrealistic or exaggerated ideas of persecution, as reflected in guardedness, and distrustful attitude, suspicious hypervigilance or frank delusions that others mean harm.	<input type="checkbox"/>
P7. HOSTILITY - Verbal and nonverbal expressions of anger and resentment, including sarcasm, passive-aggressive behavior, verbal abuse, and assaultiveness.	<input type="checkbox"/>
NEGATIVE SCALE (N):	
N1. BLUNTED AFFECT - Diminished emotional responsiveness as characterized by a reduction in facial expression, modulation of feelings and communicative gestures.	<input type="checkbox"/>
N2. EMOTIONAL WITHDRAWAL - Lack of interest in, involvement with, and affective commitment to life's events.	<input type="checkbox"/>
N3. POOR RAPPORT - Lack of interpersonal empathy, openness in conversation and sense of closeness, interest or involvement with the interviewer. This is evidenced by interpersonal distancing and reduced verbal and nonverbal communication	<input type="checkbox"/>
N4. PASSIVE/APATHETIC SOCIAL WITHDRAWAL - Diminished interest and initiative in social interactions due to passivity, apathy, anergy or avolition. This leads to reduced interpersonal involvements and neglect of activities of daily living.	<input type="checkbox"/>
N5. DIFFICULTY IN ABSTRACT THINKING - Impairment in the use of the abstract-symbolic mode of thinking, as evidenced by difficulty in classification, forming generalizations, and proceeding beyond concrete or egocentric thinking in problem-solving tasks.	<input type="checkbox"/>
N6. LACK OF SPONTANEITY AND FLOW OF CONVERSATION - Reduction in the normal flow of communication associated with apathy, avolition, defensiveness or cognitive deficit. This is manifested by diminished fluidity and productivity of the verbal interactional process.	<input type="checkbox"/>
N7. STEREOTYPED THINKING - Decreased fluidity, spontaneity and flexibility of thinking, as evidenced in rigid, repetitious or barren thought content.	<input type="checkbox"/>

GENERAL PSYCHOPATHOLOGY SCALE(G):

- G1. **SOMATIC CONCERN** - Physical complaints or beliefs about bodily illness or malfunctions. This may range from a vague sense of ill being to clear-cut delusions of catastrophic physical disease. ☐
- G2. **ANXIETY** - Subjective experience of nervousness, worry, apprehension or restlessness, ranging from excessive concern about the present or future to feelings of panic. ☐
- G3. **GUILT FEELINGS** - Sense of remorse or self-blame for real or imagined misdeeds in the past. ☐
- G4. **TENSION** -Overt physical manifestations of fear, anxiety, and agitation, such as stiffness, tremor, profuse sweating and restlessness. ☐
- G5. **MANNERISMS AND POSTURING** – Unnatural movements or posture as characterized be an awkward, stilted, disorganised, or bizarre appearance. ☐
- G6. **DEPRESSION** - Feelings of sadness, discouragement, helplessness and pessimism. ☐
- G7. **MOTOR RETARDATION** – Reduction in motor activity as reflected in slowing or lessening or movements and speech, diminished responsiveness of stimuli, and reduced body tone. ☐
- G8. **UNCOOPERATIVENESS** - Active refusal to comply with the will of significant others, including the interviewer, hospital staff or family, which may be associated with distrust, defensiveness, stubbornness, negativism, rejection of authority, hostility or belligerence. ☐
- G9. **UNUSUAL THOUGHT CONTENT** - Thinking characterized by strange, fantastic, or bizarre ideas, ranging from those that are remote or atypical to those that are distorted, illogical, and patently absurd. ☐
- G10. **DISORIENTATION** - Lack of awareness of one's relationship to the milieu, including persons, place and time, which may be due to confusion or withdrawal. ☐
- G11. **POOR ATTENTION** - Failure in focused alertness manifested by poor concentration, distractibility from internal and external stimuli, and difficulty in harnessing, sustaining or shifting focus to new stimuli. ☐
- G12. **LACK OF JUDGEMENT AND INSIGHT** - Impaired awareness or understanding of one's own psychiatric condition and life situation. This is evidenced by failure to recognize past or present psychiatric illness or symptoms, denial of the need for psychiatric hospitalization or treatment, decisions characterized by poor anticipation or consequences, and unrealistic short-term and long-range planning. ☐
- G13. **DISTURBANCE OF VOLITION** – Disturbance in the wilful initiation, sustenance, and control of one's thoughts, behavior, movements, and speech. ☐
- G14. **POOR IMPULSE CONTROL** - Disordered regulation and control of action on inner urges, resulting in sudden, unmodulated, arbitrary or misdirected discharge of tension and emotions without concern about consequences. ☐
- G15. **PREOCCUPATION** - Absorption with internally generated thoughts and feelings and with autistic experiences to the detriment of reality orientation and adaptive behavior. ☐
- G16. **ACTIVE SOCIAL AVOIDANCE** - Diminished social involvement associated with unwarranted fear, hostility, or distrust. ☐

(Adapted from SR Kay, A Fiszbein, LA Opler, 1987)

HAMILTON ANXIETY RATING SCALE (HAM-A)

Below is a list of phrases that describe certain feelings that people have. Rate the patients by finding the answer that best describes the extent to which he/she has these conditions. Select one of the five responses for each of the 14 questions.

	0 = Not present	1 = Mild	2 = Moderate	3 = Severe	4 = Very severe
1. Anxious mood Worries, anticipation of the worst, fearful anticipation, irritability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Tension Feelings of tension, fatigability, startle response, moved to tears easily, trembling, feelings of restlessness, inability to relax.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Fears Of dark, of strangers, of being left alone, of animals, of traffic, of crowds.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Insomnia Difficulty in falling asleep, broken sleep, unsatisfying sleep and fatigue on waking, dreams, nightmares, night terrors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Intellectual Difficulty in concentration, poor memory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Depressed mood Loss of interest, lack of pleasure in hobbies, depression, early waking, diurnal swing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Somatic (muscular) Pains and aches, twitching, stiffness, myoclonic jerks, grinding of teeth, unsteady voice, increased muscular tone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Somatic (sensory) Tinnitus, blurring of vision, hot and cold flushes, feelings of weakness, pricking sensation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Cardiovascular symptoms Tachycardia, palpitations, pain in chest, throbbing of vessels, fainting feelings, missing beat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Respiratory symptoms Pressure or constriction in chest, choking feelings, sighing, dyspnea.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Gastrointestinal symptoms Difficulty in swallowing, wind abdominal pain, burning sensations, abdominal fullness, nausea, vomiting, borborygmi, looseness of bowels, loss of weight, constipation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Genitourinary symptoms Frequency of micturition, urgency of micturition, amenorrhea, menorrhagia, development of frigidity, premature ejaculation, loss of libido, impotence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Autonomic symptoms Dry mouth, flushing, pallor, tendency to sweat, giddiness, tension headache, raising of hair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Behaviour at interview Fidgeting, restlessness or pacing, tremor of hands, furrowed brow, strained face, sighing or rapid respiration, facial pallor, swallowing, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Scoring: Each item is scored on a scale of 0 (not present) to 4 (very severe), with a total score range of 0–56, where <17 indicates mild severity, 18–24 mild to moderate severity, 25–30 moderate to severe and 31–56 severe to very severe.

Copyright notice: The HAM-A is in the public domain.

References: 1. Hamilton M. The assessment of anxiety states by rating. *Br J Med Psychol* 1959;32:50-5. 2. Maier W, Buller R, Philipp M, Heuser I. The Hamilton Anxiety Scale: reliability, validity and sensitivity to change in anxiety and depressive disorders. *J Affect Disord* 1988;14(1):61-8. 3. Borkovec T and Costello E. Efficacy of applied relaxation and cognitive behavioral therapy in the treatment of generalized anxiety disorder. *J Clin Consult Psychol* 1993;61(4):611-9.

HAMILTON DEPRESSION RATING SCALE (HAM-D17)

1 DEPRESSED MOOD (*sadness, hopeless, helpless, worthless*)

- 0 ☐ Absent.
 1 ☐ These feeling states indicated only on questioning.
 2 ☐ These feeling states spontaneously reported verbally.
 3 ☐ Communicates feeling states non-verbally, i.e. through facial expression, posture, voice and tendency to weep.
 4 ☐ Patient reports virtually only these feeling states in his/her spontaneous verbal and non-verbal communication.

2 FEELINGS OF GUILT

- 0 ☐ Absent.
 1 ☐ Self reproach, feels he/she has let people down.
 2 ☐ Ideas of guilt or rumination over past errors or sinful deeds.
 3 ☐ Present illness is a punishment. Delusions of guilt.
 4 ☐ Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations.

3 SUICIDE

- 0 ☐ Absent.
 1 ☐ Feels life is not worth living.
 2 ☐ Wishes he/she were dead or any thoughts of possible death to self.
 3 ☐ Ideas or gestures of suicide.
 4 ☐ Attempts at suicide (any serious attempt rate 4).

4 INSOMNIA: EARLY IN THE NIGHT

- 0 ☐ No difficulty falling asleep.
 1 ☐ Complains of occasional difficulty falling asleep, i.e. more than ½ hour.
 2 ☐ Complains of nightly difficulty falling asleep.

5 INSOMNIA: MIDDLE OF THE NIGHT

- 0 ☐ No difficulty.
 1 ☐ Patient complains of being restless and disturbed during the night.
 2 ☐ Waking during the night – any getting out of bed rates 2 (except for purposes of voiding).

6 INSOMNIA: EARLY HOURS OF THE MORNING

- 0 ☐ No difficulty.
 1 ☐ Waking in early hours of the morning but goes back to sleep.
 2 ☐ Unable to fall asleep again if he/she gets out of bed.

7 WORK AND ACTIVITIES

- 0 ☐ No difficulty.
 1 ☐ Thoughts and feelings of incapacity, fatigue or weakness related to activities, work or hobbies.
 2 ☐ Loss of interest in activity, hobbies or work – either directly reported by the patient or indirect in listlessness, indecision and vacillation (feels he/she has to push self to work or activities).
 3 ☐ Decrease in actual time spent in activities or decrease in productivity. Rate 3 if the patient does not spend at least three hours a day in activities (job or hobbies) excluding routine chores.
 4 ☐ Stopped working because of present illness. Rate 4 if patient engages in no activities except routine chores, or if patient fails to perform routine chores unassisted.

8 RETARDATION (slowness of thought and speech, impaired ability to concentrate, decreased motor activity)

- 0 ☐ Normal speech and thought.
 1 ☐ Slight retardation during the interview.
 2 ☐ Obvious retardation during the interview.
 3 ☐ Interview difficult.
 4 ☐ Complete stupor.

9 AGITATION

- 0 ☐ None.
 1 ☐ Fidgetiness.
 2 ☐ Playing with hands, hair, etc.
 3 ☐ Moving about, can't sit still.
 4 ☐ Hand wringing, nail biting, hair-pulling, biting of lips.

10 ANXIETY PSYCHIC

- 0 ☐ No difficulty.
 1 ☐ Subjective tension and irritability.
 2 ☐ Worrying about minor matters.
 3 ☐ Apprehensive attitude apparent in face or speech.
 4 ☐ Fears expressed without questioning.

11 ANXIETY SOMATIC (physiological concomitants of anxiety) such as:

- gastro-intestinal – dry mouth, wind, indigestion, diarrhea, cramps, belching
cardio-vascular – palpitations, headaches
respiratory – hyperventilation, sighing
urinary frequency
sweating
 0 ☐ Absent.
 1 ☐ Mild.
 2 ☐ Moderate.
 3 ☐ Severe.
 4 ☐ Incapacitating.

12 SOMATIC SYMPTOMS GASTRO-INTESTINAL

- 0 ☐ None.
 1 ☐ Loss of appetite but eating without staff encouragement. Heavy feelings in abdomen.
 2 ☐ Difficulty eating without staff urging. Requests or requires laxatives or medication for bowels or medication for gastro-intestinal symptoms.

13 GENERAL SOMATIC SYMPTOMS

- 0 ☐ None.
 1 ☐ Heaviness in limbs, back or head. Backaches, headaches, muscle aches. Loss of energy and fatigability.
 2 ☐ Any clear-cut symptom rates 2.

14 GENITAL SYMPTOMS (symptoms such as loss of libido, menstrual disturbances)

- 0 ☐ Absent.
 1 ☐ Mild.
 2 ☐ Severe.

15 HYPOCHONDRIASIS

- 0 ☐ Not present.
 1 ☐ Self-absorption (bodily).
 2 ☐ Preoccupation with health.
 3 ☐ Frequent complaints, requests for help, etc.
 4 ☐ Hypochondriacal delusions.

16 LOSS OF WEIGHT (RATE EITHER a OR b)

- | a) According to the patient: | b) According to weekly measurements: |
|--|---|
| 0 <input type="checkbox"/> No weight loss. | 0 <input type="checkbox"/> Less than 1 lb weight loss in week. |
| 1 <input type="checkbox"/> Probable weight loss associated with present illness. | 1 <input type="checkbox"/> Greater than 1 lb weight loss in week. |
| 2 <input type="checkbox"/> Definite (according to patient) weight loss. | 2 <input type="checkbox"/> Greater than 2 lb weight loss in week. |

17 INSIGHT

- 0 ☐ Acknowledges being depressed and ill.
 1 ☐ Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, etc.
 2 ☐ Denies being ill at all.

Total score:

Ratings should be based upon symptoms over the past one week.

Ratings should be based on a clinical interview, supplemented, where necessary, by collateral history from caregivers.

Hamilton, M. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery, and Psychiatry*, 23(1), 56–62. <https://doi.org/10.1136/jnnp.23.1.56>

