



**THE ROYAL AUSTRALIAN AND NEW ZEALAND COLLEGE OF  
PSYCHIATRISTS**

# **MOCK WRITTENS EXAMINATION**

(from the Auckland New Zealand program)

**2015**

**PAPER II**

## **Model Answers**

Note that these Mock Writtens papers are produced by local psychiatrists with no connection to the Examination Committee and are not vetted, test driven and perfected by committee in the way that the real papers are. The main point is not to get fixated about whether the question writers were “right” and you were “wrong” in the model answers, but to practice the marathon of doing 2 full 3-hour papers and practising the technique of the various question types. If you disagree with the factual detail of an answer, research the issue and decide for yourself.

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Alprazolam
- B Buspirone
- C Citalopram
- D Clomipramine
- E Flumazenil
- F Lorazepam
- G Moclobemide
- H Nitrazepam
- I Nortriptyline
- J Venlafaxine
- K Zopiclone

Which medication listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

1. Can cause tardive dyskinesia      B
2. Shown by meta-analysis to be the most effective psychopharmacological intervention for obsessive-compulsive disorder      D
3. Blocks transporter reuptake of serotonin, norepinephrine and dopamine      J

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A aripiprazole
- B benztropine
- C carbamazepine
- D clonazepam
- E clozapine
- F lamotrigine
- G lithium carbonate
- H olanzapine
- I procyclidine
- J quetiapine
- K risperidone
- L sodium valproate
- M ziprasidone
- N zopiclone

Which medication listed above is **MOST** associated with each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 4. Agranulocytosis                      E
- 5. Raised serum prolactin level                      K
- 6. Prolongation of succinylcholine's neuromuscular blockade                      G
- 7. QTc prolongation                      M

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Absence of post-ictal suppression
- B Consultation with a neurosurgeon required before ECT
- C Consultation with an orthopaedic surgeon required before ECT
- D Delay ECT until condition stabilised
- E Depressed patient is on moclobemide before ECT
- F Depressed patient takes long-term clonazepam for severe GAD
- G ECT can be used with careful electrode placement
- H Motor seizure of less than 20 seconds
- I Motor seizure of 20 seconds
- J Patient on theophylline has a history of past prolonged seizures
- K Patient takes quetiapine for insomnia
- L Strong interhemispheric coherence
- M Weak intrahemispheric coherence

Which term listed above is the **MOST** appropriate choice for each of the following examples.

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 8. ECT-induced seizure of good expected clinical efficacy L
- 9. Metal plate in patient's head after head injury 20 years ago G
- 10. Untreated phaeochromocytoma D
- 11. ECT-induced seizure of poor expected clinical efficacy A
- 12. Unstable angina and resistant depression D
- 13. Medication should be ceased before ECT course J

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A De Clerambault's syndrome
- B Delusional mood
- C Delusions of control
- D Mood congruent delusions
- E Delusions of poverty
- F Referential delusions
- G Religious delusions
- H Frégoli delusions
- I Grandiose delusions
- J Ideas of Reference
- K Jealous delusions
- L Othello syndrome
- M Primary delusion

Which abnormality of thinking listed above is the MOST appropriate choice for each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

- 14. A delusional misidentification syndrome                    H
- 15. Nihilistic delusions in psychotic depression                    D
- 16. Can contribute to control override and higher risk to others                    C
- 17. "It's our vicar, doctor—he's in love with me. I can tell by the hymns he chooses and the way he gazes into my eyes."                    A
- 18. Lesions in the right temporal lobe and the fusiform gyrus                    H
- 19. "Homeland Security's orchestrating it, and the CIA—even the news announcers are talking about me on TV. It's everywhere."                    F

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A. Phenomenological qualitative research
- B. Unstructured interview data collection
- C. Snowball sampling
- D. Data collection using video recordings
- E. Selection bias in qualitative research
- F. Latent level of analysis
- G. Data collection by note-taking
- H. Data collection using documentation
- I. Semi-structured interview data collection
- J. Grounded Theory
- K. Focus group data collection
- L. Constant Comparative Analysis
- M. Ethnographic qualitative research
- N. An extended case study
- O. Manifest level of analysis
- P. Highly structured interview data collection

**Which aspect of qualitative research listed above is the MOST appropriate choice for each of the following examples.**

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 20. A qualitative study describing and analysing organisational change in the restructuring of a community service, across a period of two years.      N
- 21. Originated with Glaser and Strauss' work in the 1960s on the interactions between health care professionals and dying patients.      J
- 22. A qualitative researcher studying a mental health service gathers up the organisation's policies, mission statements, annual reports, minutes of meetings, codes of conduct, memos and notices pinned to notice boards.      H
- 23. A qualitative research project looks at the experience and concept of "carers" - what does "caring" actually mean and what is it like to be a "carer"?      A

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Anticipation
- B Autistic fantasy
- C Denial
- D Devaluation
- E Displacement
- F Distortion
- G Humour
- H Idealisation
- I Intellectualisation
- J Magical thinking
- K Projection
- L Projective identification
- M Rationalisation
- N Reaction formation
- O Repression
- P Regression
- Q Splitting
- R Sublimation
- S Suppression
- T Undoing

Which defence listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

24. After realizing she'd inadvertently insulted her husband, Marie spent the next hour praising the dinner he'd made and how neat and tidy the house was looking. T
25. Chloe tells her nurse "You're the only one who really understands me. The doctors just want to kick me out." Q
26. A shy 15-year-old boy dreams of being the world chess champion. He spends nearly all his time alone studying the game and avoids socialising, especially with girls. B
27. Anxious about how their first date will go, Helen wears her lucky bracelet. J

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Agranulocytosis
- B Benztropine overdose
- C Hypercalcaemia
- D Hyponatremia
- E Neuroleptic malignant syndrome
- F Neurosyphilis
- G Normal pressure hydrocephalus
- H Opiate overdose
- I Pheochromocytoma
- J Porphyria
- K Tardive dyskinesia
- L Thrombocytopenia
- M Wernicke's encephalopathy
- N Wilson's disease

Which problem listed above is the **MOST** appropriate choice for each of the following questions.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

28. Kayser-Fleischer ring around the iris                      N
29. Ophthalmoplegia, ataxia, confusion                      M
30. Blepharospasm                      K
31. Constricted pupils and drowsiness                      H
32. Argyll-Robertson Pupils                      F
33. Hot as a hare, blind as a bat, dry as a bone, red as a beet, mad as a hatter                      B



# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Adherence therapy
- B Admit acutely under the Mental Health Act
- C Reduce lithium dose to 1200mgs nocte and arrange serum level the next morning
- D CBT for depressive symptoms
- E Cease lithium, repeat serum level and restart lower dose after 1-2 days
- F Family psychoeducation
- G Intensive psychodynamic psychotherapy
- H Interpersonal social rhythm therapy
- I Prescribe a loading dose of lithium
- J Prescribe a loading dose of sodium valproate
- K Mindfulness training for emotional regulation
- L Motivational interviewing to address substance abuse
- M Optimise mood stabiliser dose before starting antidepressant
- N Set up a relapse prevention plan meeting with support network

Which option listed above is the **MOST** appropriate next management step for each of the following.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

34. A 33 year old woman who responded well to acute Lithium loading (1500 mgs daily) as an inpatient is discharged early to free up a bed on the ward. Two days later she develops weakness, tremor and vomiting and calls the Crisis Team.      E
35. An 18 year old man is arrested by police running naked up the motorway. He says he is 'Captain America' but is otherwise incoherent.      B
36. A 23 year old youth is placed in respite after his third hypomanic relapse in a year. He admits to intermittent cannabis abuse at parties.      L
37. A 24 year old woman is acutely admitted with her first manic episode. Her father also has bipolar disorder and takes lithium.      I
38. A 20 year old youth is acutely admitted with his first manic episode. He lacks insight and binge-drinks alcohol with friends at the weekends.      J
39. A 42 year old woman with bipolar disorder develops moderately severe depression four months after her last admission with mania. She agrees to a respite placement.      M

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Acute manic episode
- B Antisocial personality disorder
- C Borderline personality disorder
- D Catatonic excitement
- E Delusional disorder
- F Drug-induced psychosis
- G Exhibitionism
- H Histrionic personality disorder
- I Hypomania
- J Intermittent explosive disorder
- K Major depressive disorder
- L Narcissistic personality disorder
- M Paranoid schizophrenia
- N Schizotypal personality disorder

Which diagnosis listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

40. “Hey, doc, who doc, Dr Who, hahahaha! Man, I feel really really great why you wearing that t-shirt? Shirt, flirt—see what I mean? Gonna sing a song now, ding dong ding dong that’s my song I’m a poet and I know it, king of the road king of the world, yeah!” A
41. “I’m dead inside, got no feelings for anything. That won’t change.” K
42. “They monitor me all the time—they aren’t my parents; they’re aliens. They can do that, you know. It’s called mirroring. Like an android.” M
43. “Oh, hi doc, yeah, it’s Damian. He suddenly ran across the ICU and banged into the far wall, and now he’s gone mute again, standing there like a post. Doesn’t seem to be injured, though.” D

# Extended Matching Questions

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- J Intermittent explosive disorder
- K Major depressive disorder
- L Narcissistic personality disorder
- M Paranoid schizophrenia
- N Schizotypal personality disorder

Which diagnosis listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

44. “I *am* being followed. I have notes of all the car registrations and there’s a clear pattern. Plus all their cars are white. I’m not taking those pills you prescribed—they made me drowsy at work and I can’t afford to mess up the stocktaking.” E
45. “I’m having a ball—finished three paintings this week. Yeah, I know it’s Spring and I’ll be paying later, but for now, I want to enjoy it while it lasts.” I
46. “Darling, you know you’re my best doctor *ever*. I’d kiss you if you didn’t keep going on about those silly rules! Anyway, this new stylist is amazing—we just clicked!” H
47. “You’re like all the rest of them—people constantly disappoint me. I thought at first you were different, but you haven’t understood me at all. I want a new therapist.” L

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A. Nigrostriatal system
- B. Hypothalamus
- C. Mammillary bodies
- D. Cerebellum
- E. Frontal cortex
- F. Right temporal area
- G. Spinothalamic pathway
- H. Tuberoinfundibular pathway
- I. Dominant parietal region
- J. Amygdala
- K. Temporal cortex
- L. Occipital cortex

Which brain area or structure listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 48. A 50 y.o. woman with metastatic lung cancer is referred by her GP for an assessment after developing a non-fluent dysphasia which her doctor thinks may be a conversion disorder. On examination she also has problems with writing and arithmetic and has finger agnosia. I
- 49. A 25 y.o. man commenced on risperidone 4 days previously presents to ED with torticollis. A
- 50. A 33 y.o. man develops persistent personality change with irritability, disinhibition and emotional lability after an accident in which he sustained a significant head injury. E
- 51. A 4 y.o. child presents to ED with opisthotonus after ingesting her mother's metoclopramide tablets. A

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A 1952
- B 1962
- C 1972
- D 1980 - Publication of DSM-III-R
- E 1984 - Publication of DSM-III-R
- F 1986 - Publication of DSM-III-R
- G Concept of dissociative identity disorder
- H Concept of borderline personality disorder
- I Concept of schizotypal personality disorder
- J DSM-I and DSM-II
- K ICD-10, DSM-III and DSM-IV
- L Publication of DSM-I
- M Publication of DSM-III
- N Publication of DSM-V

Which option listed above is the **MOST** appropriate choice for each of the following examples.

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

52. Original concepts of the diagnosis were from psychoanalytic theory                      H
53. The “neo-Kraepelinian revolution”                      M
54. Year first version of DSM was published                      A
55. Intended to be descriptive classificatory systems                      K
56. Intended to be explanatory classificatory systems                      J
57. Homosexuality removed entirely from DSM diagnostic categories from this point                      F

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Echoic memory
- B Engrams
- C Episodic memory
- D Implicit memory
- E Paradigms
- F Procedural memory
- G Schemata
- H Semantic memory
- I Sensory memory
- J Short-term memory
- K Working memory

Which aspect of memory listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

58. Personal experiences and specific objects, people and events experienced at particular times and places. C
59. The transient holding and processing of new and already stored information. K
60. General knowledge and facts about the world. H

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A. Cytochrome P450 2B6 induction
- B. First pass effect
- C. Reduced renal clearance
- D. Plasma protein binding
- E. Cytochrome P450 1A2 induction
- F. Narrow therapeutic index
- G. Delayed elimination of active metabolites
- H. Cytochrome P450 2E1 inhibition
- I. Genetic variation in enzyme systems
- J. Body weight altering drug distribution area
- K. A local drug effect
- L. Cytochrome P450 2D6 inhibition

**Which of the pharmacology-related effects listed above is the MOST likely to be associated with each of the following examples:**

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 61. A patient recovering from mania becomes toxic on 1200mgs lithium carbonate per day. F
  
- 62. Better clinical response to an intramuscular depot antipsychotic than to the same dose equivalent of an oral phenothiazine. B
  
- 63. Nortriptyline dose needs reducing when fluoxetine is added to therapy. A

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A** Autonomy, beneficence, non-maleficence, right not to be abused
- B** Autonomy, beneficence, non-maleficence, right not to be abused, justice
- C** Autonomy, right to be informed about one's treatment and follow-up, beneficence, non-maleficence, justice
- D** Beneficence, non-maleficence, right not to be abused
- E** Justice, right to be able to access mental health services
- F** Justice, right to be able to access mental health services, right to be assessed or treated without prejudice or bias
- G** Right to privacy, autonomy, right to be treated with dignity

**Which option listed above is the MOST appropriate choice for each of the following examples of ethical and rights breaches.**

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 64.** A solo mother works 9am-5pm to support her family. She has depression but is unable to access a CBT group as the local CMHC is not open after hours or weekends. E
- 65.** Incarceration and forced treatment of Soviet dissidents in psychiatric hospitals under spurious diagnoses. B
- 66.** A fax of a GP letter containing a patient's sensitive history of sexual abuse is accidentally sent to a packaging company. G
- 67.** Patients based rurally, 90% of whom are from the minority indigenous culture, receive less frequent follow-up than those in the city. As a group, they have higher durations of untreated psychosis. F
- 68.** Tuskegee syphilis infection follow-up study. C
- 69.** A psychodynamic psychotherapist going through a difficult divorce allows a sexual relationship to develop with his patient who has a markedly sexualised transference. D



# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Aaron Beck
- B Carl Jung
- C Emil Kraepelin
- D Erik Kandel
- E Erving Goffman
- F Eugene Bleuler
- G Fuller Torey
- H Glen Gabbard
- I Irvin Yalom
- J Jean Piaget
- K John Cade
- L Karl Jaspers
- M Kurt Schneider
- N Mary Ainsworth
- O Richard von Krafft-Ebbing
- P Sigmund Freud
- Q Thomas Szasz
- R Ugo Cerletti

Which person listed above is **MOST** associated with each of the following.

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

70. Introversion and extroversion            B

71. The 'Strange Situation'            N

72. The four "givens" of the human condition: isolation, meaninglessness, mortality and freedom            I

73. The 'Total Institution'            E

74. Use of lithium carbonate to treat mood disorders            K

75. The super-ego            P

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A. Mixed receptive-expressive language disorder
- B. Developmental coordination disorder
- C. Attention deficit/hyperactivity disorder
- D. Autistic spectrum disorder
- E. Expressive language disorder
- F. Disorder of written expression
- G. Childhood disintegrative disorder
- H. Mild mental retardation
- I. Mathematics disorder
- J. Rett's disorder
- K. Lesch–Nyhan syndrome

Which diagnosis listed above is **MOST** appropriate for each of the following.

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

76. A six year old boy fails to respond when others try to interact socially with him, has no friends and often sits alone and rocks repetitively. He did not begin to speak until age four and now speaks little and uses repetitive, idiosyncratic language. He becomes agitated if his routines are altered.     D
77. A ten year old boy interacts clumsily with other children, making few friends. He appears readily frustrated and at times has tantrums and hits other children. He collects rocks and the tops of bottled water containers which he makes into spinning tops, with which he plays repetitively. His speech is normal apart from being slightly stilted, and he does reasonably well in classes, especially in maths and science.     D
78. A two year old girl develops normally in early infancy but after the first six months loses purposeful hand movements and begins making stereotyped handwashing gestures. She has delayed speech with no whole words as yet. She can stand briefly and crawl stiffly and clumsily, but is not yet walking. She is socially withdrawn and on examination her head circumference is below normal.     J

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Abbreviated grief
- B Acceptance stage of grief
- C Anger stage of grief
- D Anticipatory grief
- E Bargaining stage of grief
- F Complicated grief
- G Delayed grief
- H Denial stage of grief
- I Depression stage of grief
- J Identification phenomena

Which option listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

79. A year after his wife's death, Michael has not worked through his grief and has developed vegetative symptoms of depression with ruminative thoughts about his wife, focussing on his regrets and thoughts of wanting to join her. F
80. After a stormy initial period in which she rails against the diagnosis and refuses to accept it, Chandni finally comes to terms with her terminal illness and gains some peace, from meditation and from time spent with family. B
81. Millie nurses her husband, who has leukaemia. She experiences considerable grief on initially hearing his diagnosis and over several months while caring for him, and in the end, his death in a hospice is almost a relief. D
82. "Do not go gentle into that good night.  
Rage, rage, against the dying of the light." C
83. Moana quickly finds a new boyfriend after her previous boyfriend, Sam, is killed in a car crash. She is soon too busy to think about Sam. A

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A. Sleep terror disorder
- B. Primary Hypersomnia
- C. Caffeine induced insomnia
- D. Catalepsy
- E. Sleep disorder due to a general medical condition
- F. Periodic Leg Movement Disorder
- G. Insomnia related to an Axis II disorder
- H. Cataplexy
- I. Narcolepsy
- J. Major Depression
- K. REM Behaviour Disorder
- L. Restless Legs Syndrome
- M. Sleepwalking disorder
- N. Primary Insomnia

Which diagnosis listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

**84.** A 30 year old man is unable to drive due to unpredictable bouts of daytime somnolence which last for about five minutes when they occur.     I

**85.** A woman presents with tearfulness, tiredness, reduced appetite, weight loss and inability to sleep past 4 a.m., three months after a miscarriage.     J

**86.** A 4 year old boy sometimes wakes before midnight, screaming and appearing very distressed and unable to be comforted. He has no recall of these episodes in the morning.     A

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Implosion therapy
- B "ABC" analysis
- C Star charts for behavioural change
- D Flooding
- E Extinction
- F In vivo exposure
- G Social skills training
- H Aversion therapy
- I Habit reversal
- J Imaginal exposure

Which option above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

87. Patients with alcohol dependence were once given alcohol mixed with an emetic. H
88. Pavlov's dog eventually stopped salivating to the bell after the bell had been sounded repeatedly but no food came. E
89. In the office, Jeannie's therapist talks her through a scenario in which she envisages seeing a small, non-venomous snake. Jeannie uses relaxation techniques. J
90. Carla's diary shows that anxieties about her exams trigger a cereal binge, followed by feelings of disgust and self-induced vomiting. B

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Trust vs. Mistrust
- B Autonomy vs. Shame and Doubt
- C Initiative vs. Guilt
- D Industry vs. Inferiority
- E Identity vs. Role Confusion
- F Intimacy vs. Isolation
- G Generativity vs. Stagnation
- H Ego Integrity vs. Despair

Which option listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

91. In the throes of a mid-life crisis, Eric buys a Porsche and has an affair. G
92. Bruce, post-retirement, spends more time with his grandchildren and at the bowling club reminiscing with other returned servicemen. H
93. Rose has a severe avoidant attachment disorder. A
94. Towards the end of his career as an advertising executive, John becomes increasingly involved with local philanthropic activities. G
95. Letitia goes through a “goth-emo” phase with many piercings and heavy black eye-liner. She quits the school choir and becomes a singer in a band, at weekends. E

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Smaller third ventricle and caudate nucleus, and enlarged temporal lobes
- B Cortical tissue loss, lateral ventricular enlargement and frontotemporal deficits
- C Fourth ventricular enlargement, parietal deficits and thalamic enlargement
- D Neuroimaging findings in schizophrenia are largely due to measurement artefacts
- E Neuroimaging findings in schizophrenia indicate that the changes are primarily neurodevelopmental
- F Neuroimaging findings in schizophrenia indicate that the changes are both neurodevelopmental and neurodegenerative
- G Occipital
- H Parietal
- I Temporal
- J Third ventricle
- K No ventricles are enlarged
- L Fourth ventricle

**Which option listed above is the MOST appropriate choice for each of the following examples, regarding neuroimaging findings.**

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

96. The volume of which brain lobes is reduced, in schizophrenia I
97. Which ventricle is commonly enlarged, in schizophrenia J
98. The cause of neuroimaging abnormalities, in schizophrenia F
99. Commonest cluster of abnormalities seen in many studies, in schizophrenia B

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Acute Posttraumatic Stress Disorder
- B Acute Stress Disorder
- C Amnestic Disorder Due to Head Trauma
- D Anorexia nervosa
- E Binge Eating Disorder
- F Bulimia nervosa
- G Conversion Disorder
- H Delusional disorder
- I Delusional disorder, somatic type
- J Depersonalization disorder
- K Dissociative amnesia
- L Dissociative Identity Disorder
- M Malingering
- N Somatization Disorder

Which diagnosis listed above is the **MOST** likely to be demonstrated by each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 100.** Three weeks after being injured in a train derailment, Vinod still has nightmares and intrusive memories of the crash.    B
- 101.** Betty, aged 22, admits to bingeing on cereals when feeling low. Afterwards she suffers some transient depressed feelings.    E
- 102.** Mario receives compensation for a back injury, but plays club rugby at weekends.    M
- 103.** Peter is admitted to a forensic unit after attempting to kill his plastic surgeon.    I



# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Alcohol
- B Benzodiazepines
- C Cocaine
- D Greyhound betting
- E Heroin
- F Horse-race betting
- G Lotto
- H Lysergic acid (LSD)
- I Marijuana
- J Methamphetamine
- K On-line blackjack
- L Pokie machines
- M Tobacco

Which option listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

104. The leading preventable cause of disease, disability, and death in the USA      M
105. The most rapidly addictive type of gambling      L
106. Once sold legally to treat obesity      J
107. Used in research to mimic psychosis and enhance psychotherapy      H

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A. alcohol
- B. benzodiazepines
- C. benztropine
- D. caffeine
- E. cocaine
- F. ketamine
- G. lysergic acid
- H. opiates
- I. psilocybin
- J. solvents
- K. tobacco

Which of the substances listed above, if abused, is the MOST likely to be the physical cause of each of the following presentations.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

108. Structurally similar to the neurotransmitter serotonin. I

109. Used in dissociative anaesthesia. F

110. Enhance the effect of the neurotransmitter GABA at the GABA(a) receptor. B

111. Can cause psychoorganic syndrome. J

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A chromosome 22q deletions
- B Codons
- C Exons
- D Intermediate P450 2D6 metabolizer phenotypes
- E Introns
- F Mitochondrial DNA
- G P450 1A2 polymorphisms
- H P450 3A4 polymorphisms
- I Plasmid
- J Polymerase chain reaction
- K Probe
- L Restriction fragment length polymorphisms
- M Serotonin receptor gene
- N Serotonin transporter gene 5HTT
- O Single nucleotide polymorphisms
- P Transcription
- Q Translation
- R Ultra-rapid P450 2D6 metabolizer phenotypes

Which option listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 112. Common sequence variations in genetic code    O
- 113. Sequences of three nucleotides each.    B
- 114. Patients with the "LL" genotype do better with SSRI therapy than those with the "SS" genotype.    N
- 115. Synthesis of a protein from an mRNA template.    Q
- 116. Circular loop of bacterial DNA    I
- 117. Linked with velocardiofacial syndrome and schizophrenia.    A

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Acute stress disorder
- B Adjustment disorder with disturbance of conduct
- C Amnestic fugue
- D Antisocial personality disorder
- E Borderline personality disorder
- F Depersonalisation disorder
- G Dissociative amnesia
- H Dissociative identity disorder
- I Factitious disorder
- J Malingering
- K Posttraumatic stress disorder

Which option listed above is the **MOST** appropriate choice for each of the following examples.

**Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 118.** Physically and sexually abused in childhood, Billy uses drugs, binge drinks and joins a criminal gang at age 18. He has poor aggression control and a criminal record of assaults and thefts.      D
- 119.** Physically and sexually abused in childhood, Shaylee uses drugs, binge drinks and takes her first paracetamol overdose at age 18. She occasionally cuts herself superficially and is referred to a DBT programme by her local mental health service.      E
- 120.** A man is admitted to a psychiatric ward, where he is vague and unable to recall personal details. Later, it transpires that he had been very stressed and had vanished from home six months earlier and been living under another name in a different city.      C
- 121.** Martin claims to be suicidal after his wife died while working in Africa in an Ebola epidemic. He is otherwise vague about personal details and his story keeps changing.      I
- 122.** Jillian, aged 28, develops retrograde autobiographical memory loss for several days, after a car accident in which her close friend died.      G

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Attention deficit disorder inattentive type
- B Attention deficit disorder with hyperactivity
- C Autism
- D Chronic motor tic disorder
- E Conduct disorder
- F Expressive language disorder
- G Feeding disorder of infancy or early childhood
- H Hypochondriasis
- I Mild mental retardation
- J Oppositional defiant disorder
- K Pervasive developmental disorder
- L Prader-Willi syndrome
- M Reactive attachment disorder
- N Rett's disorder
- O Selective mutism
- P Separation anxiety disorder

Which diagnosis listed above is the most likely to be demonstrated by each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

123. A boy is restless and disorganised, often impulsive. He is distractible, disruptive and frequently loses things. B
124. A young girl stays home from school and complains of stomach pains when her mother tries to take her. She clings to her mother's leg when her teacher tries to lead her into the school. P
125. A boy found living on the streets after being abandoned is tense and watchful. He isolates himself and avoids others. M

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A. Sleep terror disorder
- B. Primary Hypersomnia
- C. Caffeine induced sleep disorder (insomnia)
- D. Cataplexy
- E. Sleep disorder due to a general medical condition
- F. Periodic Leg Movement Disorder
- G. Insomnia related to an Axis II disorder
- H. Catalepsy
- I. Major Depression
- J. REM Behaviour Disorder
- K. Restless Legs Syndrome
- L. Circadian rhythm disorder
- M. Primary Insomnia

Which sleep problem listed above is best demonstrated by each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

126. Mary developed initial insomnia after prolonged stress at work. Although she is now feeling calmer she is still unable to fall asleep for 2-3 hours after she goes to bed. M
127. Sarah sees herself as a “night owl” and routinely stays up until 2am. She is tired at work the next day but catches up on her sleep at weekends. L
128. Andrew suffered from childhood sexual abuse and has long-term coping problems including initial insomnia and broken sleep. G
129. When startled or laughing James loses control of his head and neck muscles and his speech becomes slurred. He does not lose consciousness. D

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Bitemporal hemianopia
- B Brainstem lesion
- C Corpus callosum lesion
- D Dominant parietal lesion
- E Homonymous hemianopia
- F Nucleus accumbens lesion
- G Left parietal lobe lesion
- H Lesion to Broca's area
- I Lesion to Wernicke's area
- J Right hemisphere lesion
- K Substantia Nigra lesion

Which central nervous system problem listed above is the **MOST** appropriate choice for each of the following examples.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

130. Sensory aphasia I

131. Cogwheeling K

132. Problems learning from adverse experiences F

133. Aphasia with right-sided weakness H

134. Pituitary tumour A

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark

- A Adaptationist psychology
- B Black sheep effect
- C Collective narcissism
- D Collective sense of self
- E Group homogeneity
- F Group norms
- G Group polarization
- H Groupthink
- I Intergroup conflict reduction
- J Optimal distinctiveness
- K Social dominance orientation
- L The ingroup
- M The outgroup

Which aspect of group dynamics listed above is the MOST appropriate choice for each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

135. "It's a dog-eat-dog world and I just want to get my share." K
136. Intense *esprit de corps* among the members of an ingroup, resulting in irrational and dehumanizing actions directed against outgroups. H
137. The desire to be similar to others, but also to differentiate oneself. J
138. The tendency of a group to make decisions that are more extreme than the initial inclination of its members. G
139. Human behaviour seen as the output of psychological changes that evolved to solve recurrent problems in ancestral environments. A
140. "Psychiatrists are, of course, more sensitive and socially aware than surgeons." C





**THE ROYAL AUSTRALIAN AND NEW ZEALAND COLLEGE OF  
PSYCHIATRISTS**

# **CRITICAL ANALYSIS PROBLEMS**

**MOCK EXAMINATION**

**Paper II**

**2015**

## **DIRECTIONS**

**Do not answer questions in this booklet.  
Use the separate answer sheet and pencil provided.**

## Third-wave cognitive therapy versus mentalisation-based treatment for major depressive disorder: a randomised clinical trial

Janus Christian Jakobsen,<sup>1,2</sup> Christian Gluud,<sup>2</sup> Mickey Kongerslev,<sup>1</sup> Kirsten Aaskov Larsen,<sup>3</sup> Per Sørensen,<sup>4</sup> Per Winkel,<sup>2</sup> Theis Lange,<sup>5</sup> Ulf Søgaard,<sup>3</sup> Erik Simonsen<sup>1,6</sup>

### ABSTRACT

**Objective:** To compare the benefits and harms of third-wave cognitive therapy versus mentalisation-based therapy in a small sample of depressed participants.

**Setting:** The trial was conducted at an outpatient psychiatric clinic for non-psychotic patients in Roskilde, Denmark.

**Participants:** 44 consecutive adult participants diagnosed with major depressive disorder.

**Interventions:** 18 weeks of third-wave cognitive therapy (n=22) versus 18 weeks of mentalisation-based treatment (n=22).

**Outcomes:** The primary outcome was the Hamilton Rating Scale for Depression (HDRS) at end of treatment (18 weeks). Secondary outcomes were: remission (HDRS <8), Beck's Depression Inventory, Symptom Checklist 90 Revised and The WHO-Five Well-being Index 1999.

**Results:** The trial inclusion lasted for about 2 years as planned but only 44 out of the planned 84 participants were randomised. Two mentalisation-based participants were lost to follow-up. The unadjusted analysis showed that third-wave participants compared with mentalisation-based participants did not differ significantly regarding the 18 weeks HDRS score (12.9 vs 17.0; mean difference -4.14; 95% CI -8.30 to 0.03; p=0.051). In the analysis adjusted for baseline HDRS score, the difference was favouring third-wave cognitive therapy (p=0.039). At 18 weeks, five of the third-wave participants (22.7%) were in remission versus none of the mentalisation-based participants (p=0.049). We recorded no suicide attempts or suicides during the intervention period in any of the 44 participants. No significant differences were found between the two intervention groups on the remaining secondary outcomes.

**Conclusions:** Third-wave cognitive therapy may be more effective than mentalisation-based therapy for depressive symptoms measured on the HDRS. However, more randomised clinical trials are needed to assess the effects of third-wave cognitive therapy and mentalisation-based treatment for depression.

### Critical Analysis Question 1 (20 marks)

Having regard to the abstract above and your other knowledge:

- A Case series.
- B Crossover randomized study.
- C Double blind randomised controlled study.
- D Randomized controlled trial.
- E Observational study.
- F Two-arm parallel group pragmatic trial.

Correct = D

#### QUESTION 1.11 (1 mark)

Please select the answer listed above which best describes this trial.

- A All subjects serve as their own controls.
- B Blinding is less likely.
- C Group sizes can be unequal.
- D It is not expensive.
- E There is no volunteer bias.
- F There is unbiased distribution of confounders.

Correct = F

**QUESTION 1.12 (1 mark)**

**Please select one advantage of this type of study from the list above.**

- A Patients with symptoms of depression.
- B Patients with mood disorders.
- C Patients at risk of suicide.
- D Patients with non-psychotic depression or psychotic depression.
- E Patients with major depressive disorder.

Correct = E

**QUESTION 1.13 (1 mark)**

**The aim of this study was to compare cognitive therapy versus mentalisation-based treatment in which type of patients listed above? Select ONE answer.**

**Excerpt: Inclusion of participants**

The trial was conducted at a public psychiatric out-patient clinic only treating patients on sick leave due to a psychiatric disorder. Patients were referred from general practitioners, psychiatrists in private practice and medical and psychiatric departments. No special announcement of the trial was made to the referrers. All patients referred to the psychiatric clinic had a full psychiatric examination by a physician who made the preliminary psychiatric diagnoses (Diagnostic and Statistical Manual-IV-TR, DSM-IV-TR). Eligible patients were then interviewed by the principal investigator (JCJ) who used the depression part of the structured clinical interview for DSM-IV axis I disorders (SCID I) interview to assess whether the patient fulfilled the criteria for a major depressive disorder (DSM-IV-TR). Before randomisation baseline, assessments were carried out for all outcome measures and all eligible patients were assessed with the structured clinical Interview for DSM-IV axis II disorders (SCID II). We chose to perform the SCID II assessments because we wanted to compare personality disorders at baseline in the two intervention groups and to exclude patients with schizotypal personality disorder. The participant had to meet all of the inclusion criteria and none of the exclusion criteria.

***Inclusion criteria***

1. Age from 18 years to 65 years.
2. Major depressive disorder, whether first episode or recurrent (DSM-IV-TR).
3. Beck's Depression Inventory (BDI II) score >13 points.
4. Written informed consent.

***Exclusion criteria***

1. Current psychosis, schizophrenia or schizotypal personality disorder (DSM-IV-TR).
2. A significant alcohol or substance abuse (assessed during the preliminary consultations).
3. Initiated or changed medical antidepressive treatment less than 6 weeks before randomisation.
4. Pregnancy.
5. No written informed consent.

**Having regard to the abstract and the statements regarding inclusion and exclusion criteria above please answer the following questions:**

- A Patients who had read and understood the consent form but did not sign it.
- B Patients who had only just turned 18.
- C Patients who scored 12 on BDI-II.
- D Patients whose major depressive disorder impaired their ongoing functioning at work.
- E Patients whose major depressive disorder was recurrent and they were not responding to a four week trial of medication.

Correct = B

**QUESTION 1.21 (2 marks)**

**Which answer listed above is an inclusion criterion for patients with major depressive disorder, for this study?**

- A They had both major depression and obsessive compulsive disorder.
- B They had schizoid personality disorder.
- C They had two schizotypal personality traits.
- D They regularly drank alcohol.
- E They started antidepressants 40 days before the study.
- F They were an occasional smoker of nicotine cigarettes.

Correct = E

**QUESTION 1.22 (2 marks)**

**Which answer listed above is a reason why patients would have been excluded from this study?**

**Excerpt: Randomisation**

Eligible patients with major depressive disorder were randomised 1:1 to third-wave cognitive therapy versus mentalisation-based treatment. The Copenhagen Trial Unit performed the randomisation centrally, using a computer generated block randomisation sequence that was unknown to the investigators. Participant inclusion began in February 2010 and the last patient was randomised in July 2011. Owing to an unequal allocation of the trial participants to one of the two groups in the beginning of the trial (there were only a few participants in one of the groups), the block size was reduced from 12 to 4 and a stratification variable (HDRS score  $\geq 22$  points) was removed. The block sizes were at all times unknown to the trial investigators, and the Copenhagen Trial Unit performed these changes without informing the investigators of the changes. Otherwise, the methodology was not changed after trial began.

**Having regard to the above extract, the abstract and your other knowledge:**

- A It allows different prognostic variables to be in different groups.
- B It does not influence the statistical analysis chosen.
- C It eliminates selection bias.
- D It forms groups of different sizes and constitution.
- E It is predictable.

Correct = C

**QUESTION 1.31 (1 mark)**

**Please select the statement listed above which is most accurate regarding Block Randomisation.**

**Excerpt:**

**Reliability of the HDRS interviews**

During the trial both psychologists Hamilton-interviewed 21 patients at the same time point. The mean difference between these two HDRS ratings performed on the same patient at the same time point was 0.29 points (SD 2.21; intra-class correlation coefficient 0.96; Spearman correlation 0.94). All these 29 interviews were performed with both HDRS-raters present simultaneously. One rater interviewed and rated the interviewee and the other rater only rated the interviewee. The interviewers were not allowed to discuss the results before each interviewer had registered the HDRS result.

**Having regard to the extract above and your other knowledge:**

- A** The two psychologists having different roles during the interview invalidated the findings, as regards inter-rater reliability.
- B** Both psychologists being present at the interview invalidated the findings, as regards inter-rater reliability.
- C** A Spearman correlation of 0.94 between the two interviewing psychologists shows a very weak correlation.
- D** A Spearman correlation of 0.94 between the two interviewing psychologists shows a very strong correlation.
- E** The extract shows there was very good test-retest reliability between the two interviewing psychologists.

Correct = D

**QUESTION 1.41 (2 marks)**

**Please choose the SINGLE most accurate statement, from the list above.**

Having regard to the extract below and your other knowledge select the best answer from the following for each of the following questions:

**Excerpt: Outcomes**

*Primary outcome*

- Score on the HDRS after end of treatment at week 18.

*Secondary outcomes*

- The proportion of participants in remission after cessation of treatment at week 18. We defined remission as HDRS below 8.
- Global Severity Index score (GSI-score) on the Symptom Checklist 90 Revised (SCL-90-R) after cessation of treatment at week 18.
- Score on the WHO-Five Well-being Index 1999 (WHO 5) after cessation of treatment at week 18.
- Score on the BDI II after cessation of treatment at week 18.

- A BDI II
- B GSI
- C HDRS
- D Primary Outcome
- E Remission
- F Secondary Outcome
- G SCL 90
- H WHO-Five Well-being Index

Which option listed above is the MOST appropriate choice for each of the following examples.

**QUESTION 1.51 (1 mark)**

A categorical variable.  
Correct = E

**QUESTION 1.52 (1 mark)**

Informs the sample size calculation.  
Correct = D

**QUESTION 1.53 (1 mark)**

Could be used in Fisher's Exact Test.  
Correct = E

Having regard to the excerpt below and your other knowledge:

**Excerpt: A priori sample size estimate**

With a 'minimal relevant mean difference' (MIREDIFF) between the two interventions of 5 HDRS points, an  $\alpha$  of 0.05 (type I error), a power of 0.90 (type II error of 10%) and a SD of 7 HDRS points, the sample size calculation showed that a total of 84 participants would be necessary. We estimated that we would need an inclusion period of about 2 years to recruit 84 participants.

- A Associated with rejection of a true null hypothesis.
- B Associated with failing to reject a false null hypothesis.
- C Associated with failing to reject a true null hypothesis.
- D It is called alpha.
- E It lowers when alpha lowers.

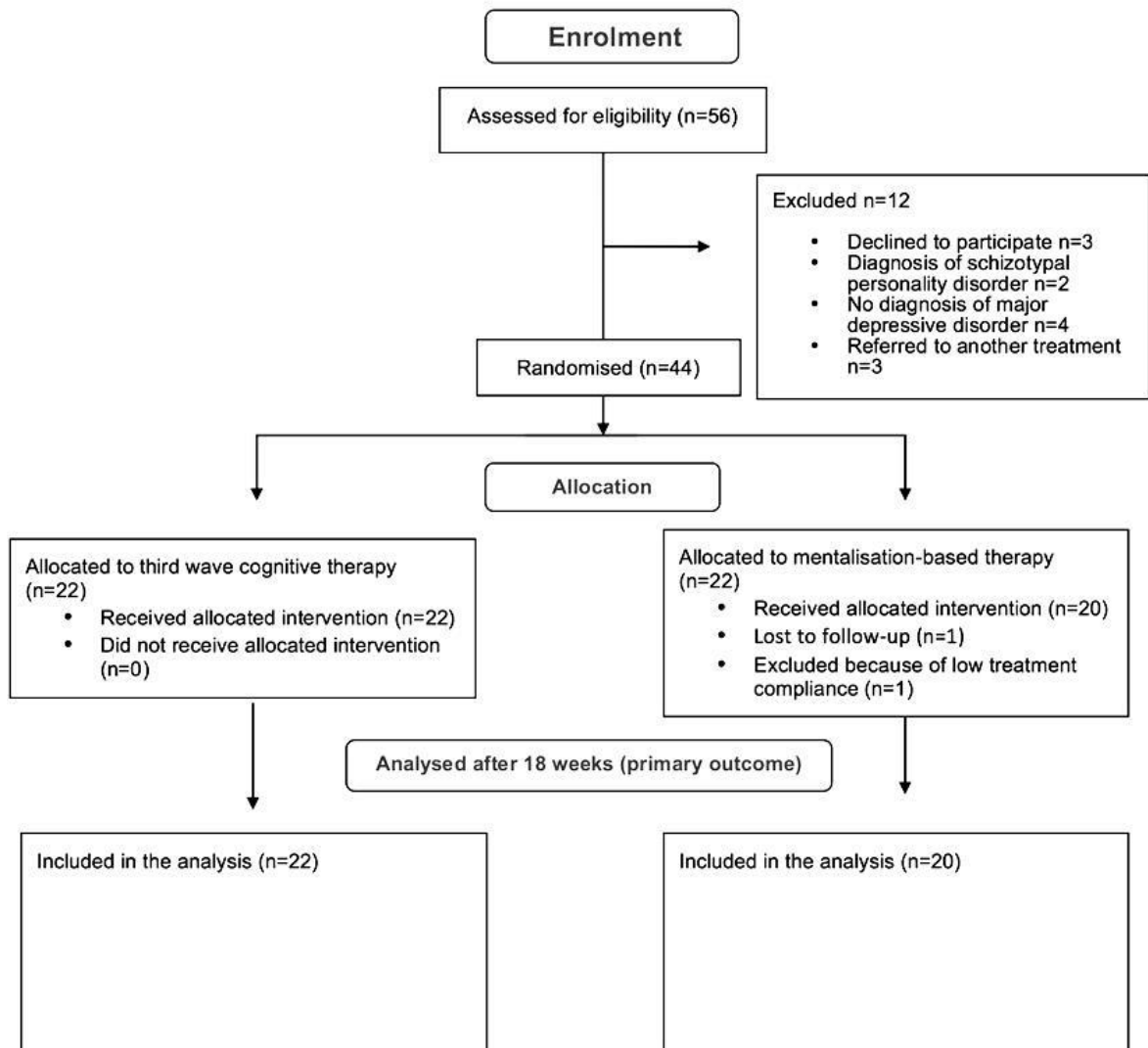
Correct = B

**QUESTION 1.61 (2 marks)**

Please choose the statement above which is true of a type II error.



## CONSORT 2010 Flow Diagram



Having regard to the above consort flow chart and your other knowledge:

- A Because 2 patients dropped out of mentalisation-based therapy the allocation was then not random.
- B Patients excluded after assessment for eligibility could be used in analyses to compare untreated patients with the two therapies.
- C The patient excluded from mentalisation-based therapy did not enjoy the treatment.
- D The 12 patients excluded did not fulfil inclusion criteria.
- E There were 14 dropouts.
- F There were 2 dropouts.

Correct = F

### QUESTION 1.71 (1 mark)

Please choose the statement above which is correct.

Table 2 Effects of third-wave cognitive therapy versus mentalisation-based treatment

Outcome measure	Group randomised to third-wave cognitive therapy (N=22)		Group randomised to mentalisation-based treatment (N=22)		p Value of unadjusted analysis at end of treatment	p Value of adjusted analysis* at end of treatment
	Baseline	End of treatment	Baseline	End of treatment		
<b>HDRS</b>						
N	22	22	21	20	0.051	0.039
Mean	22.1	12.9	22.5	17.0		
95% CI	19.5 to 24.8	9.81 to 15.9	20.3 to 24.8	14.0 to 20.0		
Remission (HDRS<8) N/total	0/22	5/22	0/21	0/20	0.049	Not possible to calculate
<b>BDI II</b>						
N	21	21	22	17	0.46	0.46
Mean	36.8	17.6	36.3	20.5		
95% CI	32.5 to 41.1	12.2 to 23.0	32.1 to 40.6	14.5 to 26.4		
<b>SCL 90-R (GSI score)</b>						
N	22	22	22	20	0.52	0.66
Mean	1.80	0.88	1.84	1.00		
95% CI	1.54 to 2.05	0.62 to 1.15	1.66 to 2.02	0.74 to 1.25		
<b>WHO 5</b>						
N	22	22	21	20	0.54	0.46
Mean	3.55	10.5	4.33	9.45		
95% CI	1.84 to 5.25	7.66 to 13.4	3.13 to 5.53	7.18 to 11.7		

\*Adjusted for baseline values of each outcome. BDI, Beck's Depression Inventory; GSI, Global Severity Index score; HDRS, Hamilton Depression Rating Scale (17-item); N, number of participants; SCL 90-R, Symptom Checklist 90 Revised; WHO 5, WHO-Five Well-being Index 1999, a high score associates to a high level of well-being.

Having regard to the above table, the abstract and your other knowledge:

- A Adjusting for baseline scores gives a more precise treatment effect estimate
- B All patients filled out baseline and end-treatment self-reports
- C Patients randomized to third wave therapy compared to mentalisation-based therapy differed significantly in the unadjusted analysis
- D Some self-report questionnaires were misplaced
- E The difference between baseline and end treatment scores for each therapy was significant but did not differ across the therapies
- F The same patients' data are missing on end treatment HDRS, SCL-90 and WHO 5 scores

Correct = A

**QUESTION 1.81 (2 marks)**

Please choose the most accurate option from the list above.

**Excerpt:**

A large proportion of the included participants were diagnosed with cluster C personality disorders (anxious or fearful personality disorders). It has been debated if a diagnosis of a personality disorder is accurate when patients are acutely depressed. Our results indicate that comorbid personality disorder and depression does not lead to a poorer outcome compared to patients with depression alone...

**Having regard to the extract above, Table 2, the abstract and your other knowledge:**

- A** As effective as mentalisation-based treatment
- B** Effective as a treatment for comorbid personality disorder
- C** Less effective than mentalisation-based treatment
- D** More effective for depressive symptoms measured on the HDRS
- E** Should be a first line treatment for major depressive disorder
- F** Should be used in combination with medication
- G** Significantly improves patient functioning compared to mentalisation-based treatment

Correct = D

**QUESTION 1.91 (2 marks)**

**Please choose the statement from the list above which best describes the main conclusion from this study about third-wave cognitive behaviour therapy.**

## Critical Analysis Question 2 (20 marks)

BMJ, doi:10.1136/bmj.38782.575868.7C (published 16 March 2006)

### Effect of enhanced psychosocial care on antipsychotic use in nursing home residents with severe dementia: cluster randomised trial

Jane Fossey, Clive Ballard, Edmund Juszczak, Ian James, Nicola Alder, Robin Jacoby, Robert Howard

#### Abstract

**Objective:** To evaluate the effectiveness of a training and support intervention for nursing home staff in reducing the proportion of residents with dementia who are prescribed neuroleptics.

**Design:** Cluster randomised controlled trial with blinded assessment of outcome.

**Setting:** 12 specialist nursing homes for people with dementia in London, Newcastle, and Oxford.

**Participants:** Residents of the 12 nursing homes; numbers varied during the study period.

**Intervention:** Training and support intervention delivered to nursing home staff over 10 months, focusing on alternatives to drugs for the management of agitated behaviour in dementia.

**Main outcome measures:** Proportion of residents in each home who were prescribed neuroleptics and mean levels of agitated and disruptive behaviour (Cohen-Mansfield agitation inventory) in each home at 12 months.

**Results:** At 12 months the proportion of residents taking neuroleptics in the intervention homes (23.0%) was significantly lower than that in the control homes (42.1%); average reduction in neuroleptic use 19.1% (95% confidence interval 0.5% to 37.7%). No significant differences were found in the levels of agitated or disruptive behaviour between intervention and control homes.

**Conclusions:** Promotion of person-centred care and good practice in the management of patients with dementia with behavioural symptoms provides an effective alternative to neuroleptics.

Having regard to the abstract above, and your other knowledge:

- A A cluster of individuals are controls
- B Clusters are randomly allocated to intervention groups
- C Patients are recruited in sequential clusters
- D Randomisation occurs within different clusters
- E The randomisation process is clustered

Correct = B

#### QUESTION 2.11 (2 marks)

Which answer above is the most accurate description of a Cluster Randomised Trial.

- A To evaluate the effect of an intervention on neuroleptic dose in rest homes
- B To evaluate the effect of an intervention on neuroleptic use in rest homes
- C To reduce neuroleptic use in rest homes
- D To reduce the dose of neuroleptics in rest homes
- E To reduce the use of medication in rest homes

Correct = B

**QUESTION 2.12 (1 mark)**

**From the list above, please choose the main aim of the trial.**

- A All statements apply
- B A greater number of participants is required
- C The trial design is more complex
- D It is more difficult to achieve adequate power
- E Analysis of the results is more complex

Correct = A

**QUESTION 2.13 (1 mark)**

**From the list above, please choose the answer which best describes the main disadvantage(s) of a Cluster Randomised Trial design.**

**Having regard to the abstract, your other knowledge and the extract below:**

**Participants and randomisation:**

We recruited residents within 12 nursing homes, four each in London, Newcastle, and Oxford. Eligible homes were those registered to accept elderly mentally impaired people and with a minimum of 25% of residents with dementia who were taking neuroleptic drugs.

- A** Patients were excluded if their family did not live in London, Newcastle or Oxford
- B** Patients taking more than one neuroleptic drug were excluded
- C** Patients with dementia could be included if they were not taking neuroleptic medication
- D** Patients without dementia were excluded
- E** Only dementia rest homes were included

Answer = C

**QUESTION 2.21 (1 mark)**

**Which of the statements above is true with regard to inclusion and exclusion criteria.**

Having regard to the following excerpts, the abstract and your other knowledge, choose your answers to the following questions from the list below:

**Assessments and measures**

Each patient's daily dose of drugs was translated into chlorpromazine daily equivalents according to the *British National Formulary*. The Cohen-Mansfield agitation inventory was used to measure the reported agitated and disruptive behaviours of residents. Dementia care mapping, an observational tool for quality of life research, was used to develop person-centred care practice. Baseline assessments were carried out by the trial's clinicians and psychology research assistants. Assessments at 12 months were carried out by a psychology research assistant who had not been employed during the intervention period. This member of staff was blind to the homes' intervention: the trial's staff did not identify the intervention homes to the researcher and nursing home staff were asked not to discuss their homes' intervention with the researcher. [excerpt truncated]

**Data analysis**

Primary outcomes (at the cluster level) were the proportion of patients receiving neuroleptic treatment at 12 months and the mean dose of neuroleptic. Secondary outcomes were agitation, patient level quality of life, proportion of patients taking other psychotropic drugs, adverse events (including documented falls), and incidents involving irritable behaviour directed at staff or other residents. [excerpt truncated]

- A Baseline assessment period
- B Chlorpromazine daily equivalent dose
- C Cohen-Mansfield agitation inventory
- D Dementia care mapping
- E House Fire
- F Number of neuroleptic medications
- G Nursing home staff
- H Psychology research assistant
- I Falls
- J Trial's clinicians
- K Twelve-month assessment period

**QUESTION 2.31 (1 mark)**

Main cause of reduced bias in the study. (correct = K)

**QUESTION 2.32 (1 mark)**

A possible adverse event. (correct = I)

**QUESTION 2.33 (1 mark)**

A primary outcome measure. (correct = B)

**QUESTION 2.34 (1 mark)**

A secondary outcome measure. (correct = C)

**QUESTION 2.35 (1 mark)**

Allowed comparison of different neuroleptic medications. (correct = B)

**Having regard to the excerpts and your other knowledge:**

- A** Robust results would be found even if there was an intention to apply the intervention but with missing primary outcome data.
- B** Subjects were only included if the researchers intended to treat them.
- C** The researchers were looking for a pragmatic estimate of the benefit from the intervention.
- D** The researchers would not include data from dropouts.
- E** The analysis took into account deviations from protocol that would not occur in the usual clinical setting.

Answer = C

**QUESTION 2.41 (2 marks)**

**In this study, the data was analysed on an “intention to treat” basis.  
Please choose the most accurate answer listed above, regarding what that meant.**



Having regard to the table below, the abstract and your other knowledge:

**Table 1** Baseline personal and clinical characteristics of residents of care homes assigned to focused training and support package or usual care (control). Values are numbers (percentages) of residents unless stated otherwise

Characteristics	Control homes (n=6; 168 residents)	Intervention homes (n=6; 181 residents)
Median (range) age (years)	82 (53-101)	82 (60-98)
Men	102/168 (61)	117/181 (65)
Taking neuroleptics	83/167 (50)	85/181 (47)
Median (range) dose of neuroleptic in chlorpromazine equivalents (No of patients)	100 (12.5-630) (n=83)	100 (10-1200) (n=84)
Taking other psychotropics	89/168 (53)	98/181 (54)
A least one fall in past 12 months	98/168 (58)	101/169 (60)
Median (range) Cohen-Mansfield agitation inventory*	37 (29-118) n=163	39 (29-114) n=167
At least one episode of aggression in past 12 months	26/168 (15.5)	11/169 (6.5)
Clinical dementia rating:		
None, questionable, or mild	37/163 (23)	25/170 (15)
Moderate	32/163 (20)	46/170 (27)
Severe	94/163 (58)	99/170 (58)
Median (range) wellbeing†‡ (No of patients)	0.9 (-2.5 to 2.6) (n=145)	0.8 (-1.7 to 2.5) (n=160)
Spending some (>0%) time asleep‡	111/145 (77)	124/160 (78)
Spending some (>0%) time withdrawn‡	98/145 (68)	103/160 (64)
*Range 29-203; higher scores mean more agitation (scores >40 usually accepted as clinically significant).		
†Range -5 to 5.		
‡Estimated using dementia care mapping.		

- A All rest homes had equal rates of baseline aggression
  - B Characteristics of residents in both arms are similar
  - C There were significantly more males than females in each of the rest homes
  - D Those on neuroleptics were prescribed this for schizophrenia
  - E Those with a clinical dementia rating of 'none' would not be included in the analyses
- Answer = B

**QUESTION 2.51 (2 marks)**

Please choose the most accurate statement from the list above.

**Table 2** Main outcomes at 12 months. Values are numbers (percentages) of nursing home residents unless stated otherwise

Outcome	Control homes (n=6; 170 residents)	Intervention homes (n=6; 176 residents)	Weighted mean difference (95% CI)*	P value*	Intracluster correlation coefficient
Taking neuroleptics	69/164 (42)	40/174 (23)	19.1 (0.5 to 37.7)	0.045	0.10
Mean† (SD) median dose in chlorpromazine equivalents (No of patients)	107.1 (15.4) (n=69)	102.1 (23.1) (n=40)	4.9 (-20.0 to 29.9)	0.67	0‡
Taking other psychotropics	92/162 (57)	109/174 (63)	-5.9 (-27.2 to 5.5)	0.56	0.080
At least one fall in past 12 months	90/165 (55)	91/175 (52)	2.6 (-18.7 to 23.8)	0.27	0.061
Mean† (SD) Cohen-Mansfield agitation inventory‡ total (No of patients)	42.0 (5.9) (n=162)	41.6 (7.2) (n=172)	0.3 (-8.3 to 8.9)	0.94	0.087
At least one episode of aggression in past 12 months	16/165 (10)	14/173 (8)	1.6 (-12.7 to 15.8)	0.25	0.10
Mean† (SD) wellbeing¶** (No of patients)	0.9 (0.35) (n=153)	1.1 (0.04) (n=149)	-0.2 (-0.5 to 0.2)	0.29	0.075
Spending some time (>0%) asleep**	114/153 (75)	110/149 (74)	0.7 (-8.5 to 9.9)	0.87	0‡
Spending some time (>0%) withdrawn**	71/153 (46)	56/149 (38)	8.8 (-25.2 to 42.8)	0.58	0.22

\*Adjusted for clustering (estimated from weighted t test).

†Mean of medians (data skewed, therefore median appropriate as summary statistic for each cluster).

‡Truncated at zero.

§Range 29-203; higher scores mean more agitation (scores >40 usually accepted as clinically significant).

¶Range -5 to 5.

\*\*Estimated using dementia care mapping.

**Having regard to Table 2 above and your other knowledge, please answer the following questions.**

- A** Any differences in the table can only be interpreted across nursing homes rather than residents.
- B** More patients took more psychotropics in the intervention homes because they were advised not to take neuroleptics.
- C** More patients were withdrawn and asleep in the control homes because they were taking higher doses of neuroleptics.
- D** The difference in agitation across the control and intervention groups is highly significant.
- E** The dementia care mapping measures are invalid because they were estimated.

Correct = A

**QUESTION 2.61 (2 marks)**

**Choose the most accurate statement listed above.**

- A** This supports the null hypothesis.
- B** There is a 0.045% probability this occurred by chance alone.
- C** There is a 0.45% probability this occurred by chance alone.
- D** There is a 4.5% probability this occurred by chance alone.
- E** This is highly significant.

Correct = D

**QUESTION 2.62 (1 mark)**

**Choose the most accurate statement above as to what  $p=0.045$  implies regarding 'taking neuroleptics', in Table 2.**

- A** Both are averages.
- B** The chlorpromazine dose is nominal data thus the mean can be calculated.
- C** The median is the difference between the biggest and the smallest number.
- D** The median is the value that appears the most often.
- E** The sum of both median and mean is the mode.

Correct = A

**QUESTION 2.63 (1 mark)**

**Choose the most accurate statement listed above regarding the mean and the median.**

**Having regard to the abstract , the tables and your other knowledge:**

- A** Levels of agitation and aggressive behaviour did not increase in all the homes.
- B** The intervention had an effect on the secondary outcome measures.
- C** The nursing home staff did not believe in the intervention.
- D** The nursing staff did not participate fully in training.
- E** The percentage of residents still prescribed neuroleptics in intervention homes was half that of the control homes.
- F** Withdrawal of neuroleptics may worsen behavioural disturbance in dementia.

Correct = E

**QUESTION 2.71 (2 marks)**

**Choose the answer above which most accurately gives a conclusion that can be drawn after 12 months of the study.**