ROYAL COLLEGE
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COLLÈGE ROYAL
DES MÉDECINS ET CHIRURGIENS DU CANADA

Sample Written Exam – Child and Adolescent Psychiatry

Question 1

A 6-year-old boy previously diagnosed with ADHD combined type has had good symptom response to his current medication Methylphenidate OROS (Concerta) 36mg. He now presents with new onset sleep difficulty.

a. List **TWO** strategies, other than pharmacological, to improve sleep.

   MODEL ANSWER (1 mark each, 2 marks total)

   - Regular bedtime
   - Regular waking time
   - No electronics in evening
   - Decrease overall electronics to less than 2 hours
   - Avoid caffeinated beverages

b. List **THREE** pharmacological strategies to improve sleep.

   MODEL ANSWER (1 mark each, 3 marks total)

   - Melatonin 3-6mg
   - Change to shorter acting form of methylphenidate-Biphentin, IR methylphenidate
   - Decrease dose of Concerta
   - Switch to amphetamine class medication
   - Switch to atomoxetine
   - Add or switch to alpha agonist (clonidine or guanfacin XR)
   - Ensure medication given as early as possible in the morning.

Reference:

Canadian Attention Deficit Hyperactivity Disorder Resource Alliance (CADDRA): Canadian ADHD Practice Guidelines, Third Edition, Toronto ON; CADDRA, 2011.

Question 2

Infants and young children show an organization of attachment behaviors based on their age.

Name **ONE** characteristic of normal attachment behaviour for each of the five phases listed below.

a. Birth to 2 months:

MODEL ANSWER (1 mark each, 1 mark total)

- Limited discrimination
- Preference limited to olfactory and auditory realm

b. 7-12 months:

MODEL ANSWER (1 mark each, 1 mark total)

- Preferred attachment
- Preference for small number of familiar caregivers
- Separation protest
- Stranger wariness

c. 12-18 months:

MODEL ANSWER (1 mark each, 1 mark total)

- Secure base
- Use attachment figure as base to explore venture out.
- Returns if danger.
- Proximity of caregiver promotes secure feeling

d. Older than 18 months:

MODEL ANSWER (1 mark each, 1 mark total)

- Goal oriented partnership
- Cooperates with caregiver in spite of conflicts.
- Increasing autonomy
- Verbal relatedness
- Reliance on caregiver for help

References:

Sadock, B and Sadock V. Kaplan and Sadock's Comprehensive Textbook of Psychiatry, 9th ed (2009)

AACAP. Practice Parameter for the assessment and treatment of children and adolescents with reactive attachment disorder of infancy and early childhood. J. Am. Acad. Child Adolesc. Psychiatry, 44:11 November 2005

Question 3

A 16-year-old male presents to the emergency department due to behavioural changes. He reports a 3-year history daily marijuana use combined with a ten-day period of daily 3,4-methlenedioxy-methamphetamine (MDMA/ecstasy/molly) use which he stopped two days ago.

a. Which neurotransmitter is primarily responsible for the psychiatric manifestations of MDMA (ecstasy/Molly) withdrawal?

   MODEL ANSWER (1 mark)

   - Serotonin depletion (the primary reason for psychiatric manifestation)

b. List **FOUR** psychiatric signs or symptoms of MDMA (ecstasy) withdrawal.

   MODEL ANSWER (1 mark each, 4 marks total)

   - Psychomotor agitation
   - Hallucinations-auditory or visual
   - Anxiety/panic attacks
   - Ideas of reference/paranoid ideation
   - Depression
   - Mood lability
   - Vivid unpleasant dreams
   - Cognitive impairment (confusion, memory loss)

References:

DSM5 -stimulant/hallucinogen withdrawal
Poisindex managements-Hallucinogenic Amphetamines
Drug Facts MDMA. Http://drugabuse.gov/publlications/drugfacts/mdma-ecstasy-or-molly

Question 4

A 6-year-old girl presents with fear of riding in a car following involvement in a motor vehicle accident, six weeks ago.

a. List **TWO** symptoms besides avoidance that would be seen in post-traumatic stress disorder in this child.

   MODEL ANSWER (1 mark each, 2 marks total)

   - Subjective sense of numbness, detachment, absence of emotional responsiveness
   - Reduction in awareness of her surroundings
   - Derealization
   - Depersonalization
   - Dissociative amnesia (inability to recall important aspects of the trauma)
   - Recurrent images, thoughts, dreams, illusions or flashbacks
   - A sense of reliving the experience
   - Distress on exposure to reminder of the traumatic event Marked symptoms of anxiety or increased arousal (difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, motor restlessness)

b. List **THREE** techniques employed in CBT for post-traumatic symptoms in this age group.

   MODEL ANSWER (1 mark each, 3 marks total)

   - Imagery
   - Self-talk
   - Characterization of the symptoms as persona
   - Encourage expression of feelings
   - Psychoeducation
   - Teach stress management techniques/relaxation training
   - Gradual exposure (joint child-caregiver session) to increase the ability to confront reminders of traumatic experience, gain perspective on experience

References:

DSM5

Lewis's child and adolescent psychiatry: a comprehensive textbook edn4

Question 5

A 16-year-old boy is seen for difficulty with attention and concentration, and drop in school grades. In the course of the history you find that he has a PC, a cell phone, gaming system and TV in his bedroom. You determine the first step is to provide psychoeducation on sleep hygiene.

List **FIVE** ways in which use of electronics is linked to poor sleep quality in adolescents.

MODEL ANSWER (1 mark each, 5 marks total)

- Delayed bedtime
- Delayed wake up time
- Decreased time in bed/shortened sleep
- Increased sleep onset latency
- Bright light suppresses melatonin delaying circadian rhythm
- Bright light delays circadian rhythm
- Bright light is activating
- Sleep deficit increases
- Disrupted sleep
- Delayed sleep phase
- Sleep interruption due to incoming messages
- Worse with > 4 hours of school exposure
- Increased number of devices increases risk of all of the above

References:

Gruber et al. Position statement on Pediatric Sleep for Psychiatrists, J Can Acad Child Adolesc Psychiatry, 23:3; September 2014

Hysing et al. Sleep and use of electronic devices in adolescence: results form a large population based study BMJ Open 2015;5:e006748. Doi:10.1136/bmjopen-2014-006748

Question 6

A 16-year-old adolescent boy presents to your office alone, requesting assistance. He has no history of depression or attempted suicide. He reports a persistent state of lack of energy, anhedonia (even in his favourite leisure activities), depressed mood every day, sleep disturbances, loss of appetite (weight loss of 5 kg), pessimism, and self-reproach. The symptoms have been clearly present for 4 weeks. His grades at school have fallen from 80% to 65% in the past 2 weeks even though he continues to do his best to study. He has stopped going out with his friends and no longer sees a "light at the end of the tunnel".

Name **FIVE** elements that you will look for to properly complete your assessment in order to determine the diagnosis, initiate treatment, and provide effective management of this patient's case.

MODEL ANSWER (1 mark each, 5 marks total)

- Verify if physical signs or symptoms
- Verify substance use/abuse (drugs/alcohol)
- Verify whether the patient has delusional ideas or hallucinations (dangerousness)
- Verify whether the patient has suicidal ideation (dangerousness)
- Verify whether the patient has homicidal ideation (dangerousness)
- Have the parents come to see you or contact them (or other collateral to informants) complete the assessment
- Verify the situation with the school
- Verify if there is a family history of psychiatric illness and suicide
- Verify if there is a personal history of psychiatric illness and suicide
- Verify if he is using drugs or medication
- Assess patient safety (verify whether the patient will be able to request help if suicidal or dangerous ideas develop before the next appointment, and whether the environment is adequate to help him)

References:

Morrison, J and K Flegel “Interviewing Children and Adolescents, Second Edition: Skills and Strategies for Effective DSM-5® Diagnosis” Sept. 2017, The Guilford Press.