Committee for Examinations
Objective Structured Clinical Examination

Station 7
Brisbane September 2016

The Royal Australian & New Zealand College of Psychiatrists

1.0 Descriptive summary of station:

In this viva station the candidate is expected to demonstrate their knowledge of the negative symptoms of schizophrenia, including historical factors, identification, differential diagnosis and their management.

1.1 The main assessment aims are:

- To demonstrate knowledge of the historical descriptions associated with negative symptoms in schizophrenia from classical psychiatric literature.
- To demonstrate the ability to identify negative symptoms of schizophrenia through the process of excluding other possible explanations like depression, response to severe positive symptoms and extrapyramidal side effects as part of the differential diagnosis.
- To demonstrate an awareness of the treatment of negative symptoms of schizophrenia.

1.2 The candidate MUST demonstrate the following to achieve the required standard:

- Identify at least one historical figure associated with the description of negative symptoms.
- Describe alternative causes for negative symptoms of schizophrenia that includes depression, extrapyramidal side effects and positive symptoms.
- Incorporate a BioPsychoSocial approach to treatment.

1.3 Station covers the:

- **RANZCP OSCE Curriculum Blueprint Primary Descriptor Category:** Psychotic Disorders
- **Area of Practice:** Adult Psychiatry
- **CanMEDS domains:** Scholar, Medical Expert
- **RANZCP 2012 Fellowship Program Learning Outcomes:** Scholar (Literature Knowledge), Medical Expert (Diagnosis; Management – Initial Plan)

References:

- Buchanan, R. (2007) Persistent Negative Symptoms in Schizophrenia: An Overview *Schizophrenia Bulletin. **33**: 1013–1022*
- Tanden R, Gaebel W, et al. Definition and description of schizophrenia in the DSM-5. *Schiz Res 2013 http://dx.doi.org/ 10.1016/j.schres.2013.05.028*
- Andreasen NC: Scale for the Assessment of Negative Symptoms (SANS). Iowa City, University of Iowa, 1984
- Vella, S. Cynthia. and Pai, N. B. (2015). Negative symptoms of schizophrenia: a historical, contemporary, and futuristic view. Archives of Medicine and Health Sciences, 3 (2), 329-334
- Castle, D., Copolov D., Wykes T., Mueser K. Pharmacological and psychosocial treatments in schizophrenia, Informa 2008

1.4 Station requirements:

- Standard consulting room; no physical examination facilities required.
- Four chairs (examiner x 1, role player x 1, candidate x 1, observer x 1).
- Laminated copy of 'Instructions to Candidate'.
- Pen for candidate.
- Timer and batteries for examiner.

2.0 Instructions to Candidate

You have **eight (8) minutes** to complete this station after **two (2) minutes** of reading time.

This is a VIVA station. There is no role player in this station.

You are working as a junior consultant in a community psychiatry clinic. One of your patients, Jason, is a 27-year-old man with a diagnosis of schizophrenia. He lives with his mother. During a routine review, his mother tells you that she is concerned that her son is spending his day sitting on the couch doing nothing.

You think he may have negative symptoms of schizophrenia.

Your tasks are to present:

- The historical aspects of the concept of negative symptoms in schizophrenia.
- Describe the differential diagnoses for negative symptoms of schizophrenia.
- Outline management options for negative symptoms of schizophrenia.

You will not receive any time prompts.

Station 7 - Operation Summary

Prior to examination:

- Check the arrangement of the room, including seating and other specifics to your scenario.
- On the desk, in clear view of the candidate, place:
  - A copy of 'Instructions to Candidate' and any other candidate material specific to the station e.g. investigation results.
  - Pens.
  - Water and tissues are available for candidate use.

During examination:

- Please ensure mark sheets and other station information, are out of candidate's view.
- At the **first bell**, take your places
- At the **second bell**, start your timer, check candidate ID number on entry.
- Your scripted introduction is:

  'Please proceed to complete your tasks.'
- TAKE NOTE – there are no cues or time prompts for you to give.
- DO NOT redirect or prompt the candidate unless scripted.
- If the candidate asks you for information or clarification say:

  'Your information is in front of you – you are to do the best you can.'
- At **eight (8) minutes**, as indicated by the timer, the final bell will ring. Finish the examination immediately.

At conclusion of examination:

- Retrieve all station material from the candidate.
- Complete marking and place your mark sheet in an envelope by / under the door for collection (**do not seal envelope**).
- Ensure room is set up again for next candidate. (See 'Prior to examination' above.)

If a candidate elects to finish early after the <u>final task</u>:

- You are to state the following:

  'Are you satisfied you have completed the tasks?

  If so, you <u>must</u> remain in the room and <u>NOT</u> proceed to the nest station until the bell rings.'
- If the candidate asks if you think they should finish or have done enough etc. refer them back to their instructions and ask them to decide whether they believe they have completed the task(s).

3.0 Instructions to Examiner

3.1 In this station, your role is to:

Observe the activity undertaken in the station and judge it according to the station assessment aims and defined tasks as outlined in 1.1 and 1.2.

When the candidate enters the room briefly check ID number.

Your scripted introduction is:

"Please proceed to complete your tasks."

There are no specific prompts.

3.2 Background information for examiners

This station aims to assess the candidates' ability to understand, identify and manage the negative symptoms of schizophrenia. The candidate is expected to demonstrate their theoretical knowledge of negative symptoms on which they can base their assessment, diagnosis and treatment. This includes formulating a differential diagnosis that incorporates severe positive symptoms, extrapyramidal symptoms and depressive symptoms.

In order to 'Achieve' this station the candidate **must**:

- Identify at least one historical figure associated with the description of negative symptoms.
- Describe alternative causes for negative symptoms of schizophrenia that includes depression, extrapyramidal side effects and positive symptoms.
- Incorporate a BioPsychoSocial approach to treatment.

History

The negative symptoms of schizophrenia, defined as the absence or diminution of normal behaviours and functions, have been recognised since Kraepelin and Bleuler. Kraepelin's description of the 'avolitional syndrome' manifested as a 'weakening of those emotional activities which permanently form the mainsprings of volition' and resulting in 'emotional dullness, failure of mental activities, loss of mastery over volition, of endeavour, and of ability for independent action' represents one of the most elegant descriptions of negative symptoms.

Following Kraepelin, Bleuler further theorised about the condition known as dementia praecox, which he renamed as schizophrenia in 1911. Bleuler ascertained that schizophrenia was a disturbance of association, affectivity, attention, and volition. This view of schizophrenia remained the prominent view until the 1960's when the emphasis shifted toward symptoms reflective of a disturbance of reality such as delusions and hallucinations. Positive symptoms reflective of a reality disturbance are much more easily identifiable being either present or absent, as oppose to the diminution of functioning apparent in the negative symptomatology described by Kraepelin and Bleuler.

A few theorists continued to identify the importance of negative symptoms with Andreasen recognising that although positive symptoms are readily identifiable, it is not the most fundamental characteristic of schizophrenia; hence, she developed the first scale for measuring negative symptomatology in schizophrenia in 1983; the scale for the assessment of negative symptoms (SANS). This instrument offered the first operational definition of the negative symptomatology construct. The SANS measures the following negative symptoms: alogia, affective blunting, avolition, apathy, anhedonia, asociality, and attentional impairment. Crow defined two types of schizophrenia; Type I being associated with positive symptoms and Type II being associated with negative symptoms, the latter being unchangeable by treatment and associated with poor long-term outcomes.

Negative Symptoms

Negative symptoms are identified as one of the core criteria of schizophrenia in both the DMS-5 and ICD-10. They include blunted affect or decline in emotional response, alogia, apathy, amotivation, avolition, asociality and anhedonia:

- Affective flattening or blunted affect
- Anhedonia relates to a lack of enjoyment
- Asociality refers to a tendency to isolate oneself
- Alogia is a lack of speech
- Apathy and avolition pertains to a lack of interest, enthusiasm or concern.

These symptoms tend to persist longer than positive symptoms and are more difficult to treat, and account for much of the long-term morbidity and poor functional outcome of patients with schizophrenia. Improvements in negative symptoms are associated with a variety of improved functional outcomes, including independent living skills, social functioning, and role functioning. Targeting these symptoms in the treatment of schizophrenia may have significant functional benefits.

In DSM-5, negative symptoms are classified under criterion A (Characteristic symptoms).

According to DSM-5, avolition and diminished emotional expression have been found to describe two distinguishable aspects of negative symptoms in schizophrenia, and diminished emotional expression better describes the nature of affective abnormality in schizophrenia than affective flattening.

Persistent negative symptoms include the negative symptoms of schizophrenia that:
1. are primary to the illness
2. interfere with the ability of the patient to perform normal role functions
3. persist during periods of clinical stability
4. represent an unmet therapeutic need

Prevalence

In clinical samples, patients with the deficit form of schizophrenia or primary negative symptoms represent about 20%–30% of patients, whereas in population-based samples approximating incidence samples, patients with the negative symptoms of schizophrenia comprise 14%–17% of patients with schizophrenia.

Assessment

The clinical assessment of persistent negative symptoms is based on cross-sectional and longitudinal evaluation of negative symptoms, in conjunction with the use of other symptom criteria designed to minimise the inclusion of secondary negative symptoms (such as medication side effects). Restricted affect, diminished emotional range, and poverty of speech are mainly evaluated by observation, while curbing of interest, diminished sense of purpose, and diminished social drive by interview.

The Scale for the Assessment of Negative Symptoms (SANS) or Positive and Negative Symptom Scale (PANSS) are currently the standard scales used to assess negative symptoms, but they have a number of limitations including insufficient number of items to assess the full range of negative symptoms, inclusion of nonspecific items that can be found in other psychiatric disorders, inadequately defined anchors, lack of standardised scoring methods or lack of sensitivity to change over brief periods of time.

Items included in SANS are:

Affective Flattening or Blunting (a diminution of emotional expression). • Unchanging Facial Expression • Decreased Spontaneous Movements • Paucity of Expressive Gestures • Poor Eye Contact • Affective Non-responsivity • Lack of Vocal Inflections • Inappropriate Affect • Global Rating of Affective Flattening	**Anhedonia** (inability to experience pleasure) **- Asociality** (general lack of interest in social relationships) • Recreational Interests and Activities • Sexual Interest and Activity • Ability to Feel Intimacy and Closeness • Relationships with Friends and Peers • Global Rating of Anhedonia-Asociality
Alogia (defined as a poverty of speech either in frequency or content) • Poverty of Speech • Poverty of Content of Speech • Blocking • Increased Latency of Response • Global Rating of Alogia	**Avolition** (defined as a general lack of motivation) **- Apathy** (lack of interest in general) • Grooming and Hygiene • Impersistence at Work or School • Physical Anergia • Global Rating of Avolition-Apathy
Attention • Social Inattentiveness • Inattentiveness During Mental Status Testing • Global Rating of Attention	

Differential Diagnosis:

The negative symptoms of schizophrenia can closely resemble the symptoms of a depressive episode (these include apathy, extreme emotional withdrawal, lack of affect, low energy and social isolation).

Negative symptoms may be medication related effects (secondary negative symptoms due to sedation and extrapyramidal symptoms - EPSE). These are known as the neuroleptic induced deficit syndrome. The bradykinesia, limb stiffness, and mask-like facies seen in Parkinsonism are a social and functional handicap. The development of symptoms is dose dependent and emerges in about 20 to 40 percent of patients. With continuation of medication, the Parkinsonian symptoms may gradually subside and tolerance may develop.

While cognitive symptoms of schizophrenia have been accepted for many years they are not specifically included in the diagnostic criteria for schizophrenia in DSM-5 because of the lack of specificity to the disorder.

Severe positive symptoms can cause reduced mobility and withdrawal secondary to preoccupation with auditory hallucinations or as a reaction to persecutory delusions. Hallucinations and delusions may lead to emotional and social withdrawal both as a response to the often threatening content of these psychotic phenomena, and to the attempt to reduce external stimuli in the face of being overwhelmed by emotional experiences. During acute psychotic episodes it may be impossible to distinguish between secondary negative symptoms originating from this cause and primary negative symptoms – such a distinction may be possible only in retrospect. Catatonia, although rare, needs to be kept in mind due to the psychomotor inhibition associated with this state.

Social isolation resulting from a chronic illness may in itself produce social withdrawal similar to primary negative symptoms and must be considered in each patient.

Management of Negative Symptoms

Negative symptoms are generally viewed as being resistant to treatment, but evidence suggests that they do respond to pharmacologic and social interventions. Most responsive to treatment are negative symptoms that occur in association with positive symptoms (psychotic-phase) and secondary negative symptoms caused by neuroleptic medication, depression, or lack of stimulation.

The most effective treatment for secondary symptoms is to target the underlying cause. Neuroleptic-induced akinesia may respond to anticholinergic agents, reduction in antipsychotic dose, or a change in antipsychotic. Using one of the newer-generation antipsychotics (clozapine, risperidone, olanzapine, quetiapine, or ziprasidone) may prevent EPS. Medication must be used in the lowest effective dose.

Psychosocial Treatments for Negative Symptoms

A psychosocial approach to schizophrenia builds on relationships between the patient and others and may involve social skills training, vocational rehabilitation, and psychotherapy. Activity-oriented therapies appear to be significantly more effective than verbal/talking therapies. This is in part due to their effect in reducing the environmental under-stimulation experienced by chronically unwell people due to their social isolation and lack of employment. The role of NGOs in this area is invaluable. An assessment by an occupational therapist to identify areas of strength and using a recovery-based approach can ensure a better outcome.

Goals of psychosocial therapy:

- set realistic expectations for the patient
- stay active in treatment in the face of a protracted illness
- create a benign and supportive environment for the patient and caregivers.

Social skills training designed to help the patient correctly perceive and respond to social situations, is the most widely studied and applied psychosocial intervention. The training is similar to that used in educational settings but focusses on remedying social rather than academic deficits. In schizophrenia, skills training programs address living skills, communication, conflict resolution, vocational skills, etc.

In early studies of social skills training, patients and their families described enhanced social adjustment, and hospitalisation rates improved. More recent studies have confirmed improved social adjustment and relapse rates but suggest that overall symptom improvement is modest.

Cognitive remediation involves using computer based training tasks with graduated levels of difficulty that challenges compromised cognitive abilities like attention, concentration and executive function. These exercises vary from those that target specific cognitive processes like facial recognition to others that use many integrated brain processes. They typically begin with simple tasks and build to more complex ones.

Cognitive behaviour therapy for negative symptoms aims to harness motivation, and promote social and emotional re-engagement by techniques like behaviour self-monitoring, activity scheduling and graded task assignments.

Psychoeducation should be aimed at helping family members, who are often more distressed by negative symptoms than the patients, to understand that these symptoms are not under the patient's control. An explanation of the blunted affect, psychomotor retardation and social withdrawal as being part of the illness would help them manage these situations better, and may aid in reducing high levels of expressed emotions.

Medication for Negative Symptoms
Comorbid depression may require adding an antidepressant, or it may respond directly to an antipsychotic. Lack of stimulation is best handled by placing the patient in a more appropriately stimulating (but not overstimulating) and supportive environment. Non-enduring primary or psychotic-phase negative symptoms respond to effective antipsychotic treatment of the positive symptoms.

Conventional first generation antipsychotics (e.g. haloperidol, chlorpromazine) clearly offer some benefit in treating positive symptoms. However, using higher-than-appropriate doses may result in severe EPS.

Two-thirds of the approximately 35 studies comparing conventional and second generation antipsychotics (SGAs) in treating negative symptoms have found SGAs to be significantly more effective (regardless of which atypical was used). In general, SGAs improve negative symptoms by about 25%, compared with 10 to 15% improvement with conventional agents.

Much of the greater benefit with SGAs appears to be related to their at least equivalent ability to improve positive symptoms without causing EPS. Consequently, the key to improved patient outcomes is appropriate dosing of SGAs that reduces positive symptoms optimally without EPS and without the need for an anticholinergic.

The significance of clozapine lies in its ability to provide clinical improvement in treatment resistant patients, resulting in an overall improvement in the quality of life, with effects on both positive and negative symptoms.

3.3 The Standard Required

Surpasses the Standard – the candidate demonstrates competence above the level of a junior consultant psychiatrist in several of the domains described below.

Achieves the Standard – the candidate demonstrates competence expected of a junior consultant psychiatrist. That is the candidate is able to demonstrate, *taking their performance in the examination overall*, that

i. they have competence as a ***medical expert*** who can apply psychiatric knowledge including medicolegal expertise, clinical skills and professional attitudes in the care of patients (such attitudes may include an ability to tolerate uncertainty, balance, open-mindedness, curiosity, 'common sense' and a scientific approach)

ii. they can act as a ***communicator*** who effectively facilitates the doctor patient relationship

iii. they can ***collaborate*** effectively within a healthcare team to optimise patient care

iv. they can act as ***managers*** in healthcare organisations who contribute to the effectiveness of the healthcare system, organise sustainable practices and make decisions about allocating resources

v. they can act as ***health advocates*** to advance the health and wellbeing of individual patients, communities and populations

vi. they can act as ***scholars*** who demonstrate a life-long commitment to learning as well as the creation, dissemination, application and translation of medical knowledge

vii. they can act as ***professionals*** who are committed to ethical practice and high personal standards of behaviour.

Below the Standard – the candidate demonstrates significant defects in several of the domains listed above.

Does Not Achieve the Standard – the candidate demonstrates significant defects in most of the domains listed above or the candidate demonstrates significant defects in the first domain of being a medical expert.

STATION 7 – MARKING DOMAINS

The Main Assessment Aims are:

- To demonstrate knowledge of the historical descriptions associated with negative symptoms in schizophrenia from classical psychiatric literature.
- To demonstrate the ability to identify negative symptoms of schizophrenia through the process of excluding other possible explanations like depression, response to severe positive symptoms and extrapyramidal side effects as part of the differential diagnosis.
- To demonstrate an awareness of the treatment of negative symptoms of schizophrenia.

Level of Observed Competence:

6.0 SCHOLAR

6.4 Did the candidate demonstrate knowledge of relevant history relating to the development of the concepts associated with negative symptoms of schizophrenia? (Proportionate value - 20%)

Surpasses the Standard (scores 5) if:
clearly achieves the standard overall with a superior knowledge presented systematically; supports presentation with references from the literature.

Achieves the Standard by:
displaying knowledge of the evolution of the historical concept of negative symptoms from Kraeplin to current times; describing the theories about negative symptoms; recognising contributions recorded by individuals in the literature; including development of techniques to assess negative symptoms; outlining the symptom descriptions that make up negative symptoms.

To achieve the standard ***(scores 3)*** the candidate **MUST**:

a. Identify at least one historical figure associated with the description of negative symptoms.

A score of 4 may be awarded if the candidate includes a number of historical and current figures involved in the evolution of this concept.

Below the Standard (scores 2 or 1):
scores 2 if the candidate does not meet (a) above, or has omissions that would detract from the overall quality response; significant omissions affecting quality scores 1.

Does Not Achieve the Standard (scores 0) if:
unaware of any of the historical aspects of negative symptoms; insufficient support from the literature.

6.4. Category: SCHOLAR – Literature Knowledge	Surpasses Standard	Achieves Standard		Below the Standard		Standard Not Achieved
ENTER GRADE (X) IN ONE BOX ONLY	5 ☐	4 ☐	3 ☐	2 ☐	1 ☐	0 ☐

1.0 MEDICAL EXPERT

1.9 Did the candidate formulate and describe relevant differential diagnoses for negative symptoms of schizophrenia? (Proportionate value - 40%)

Surpasses the Standard (scores 5) if:
clearly achieves the standard overall with a superior performance in a number of areas; is aware of the significance of social isolation and cognitive impairment in addition to depression, EPSE and severe positive symptoms; recognises the difficulties of differentiating these conditions.

Achieves the Standard by:
providing most of the likely differential diagnoses for this condition; demonstrating detailed understanding of the diagnostic criteria; adequate prioritising of conditions relevant to making the diagnosis; providing features that differentiate alternatives with details regarding the features of each which help in the diagnostic process; explaining how negative symptoms mimic other symptoms.

To achieve the standard ***(scores 3)*** the candidate **MUST:**

a. Describe alternative causes for negative symptoms of schizophrenia that includes depression, extrapyramidal side effects and positive symptoms.

A score of 4 may be awarded depending on the depth and breadth of additional factors covered; if the candidate includes most or all correct elements.

Below the Standard (scores 2 or 1):
scores 2 if the candidate does not meet (a) above, or has omissions that would detract from the overall quality response; significant omissions affecting quality scores 1.

Does Not Achieve the Standard (scores 0) if:
significant deficiencies such as giving irrelevant options or offers no differential diagnosis.

1.9. Category: DIAGNOSIS	Surpasses Standard	Achieves Standard		Below the Standard		Standard Not Achieved
ENTER GRADE (X) IN ONE BOX ONLY	5 ☐	4 ☐	3 ☐	2 ☐	1 ☐	0 ☐

1.13 Did the candidate adequately discuss a management plan for the negative symptoms of schizophrenia? (Proportionate value - 40%)

Surpasses the Standard (scores 5) if:
clearly achieves the standard overall with a superior performance in a number of areas; provides a broad, well-constructed biopsychosocial approach; recognising the roles of the MDT and NGOs in a recovery based framework; identifying limitations of treatments.

Achieves the Standard by:
demonstrating an understanding details of specific treatments; setting realistic goals and a supportive environment; prioritising a switch from first generation antipsychotics if prescribed; describing the role of medication to relieve extrapyramidal symptoms and change to antipsychotics that minimise these; considering the unique role of clozapine; providing details of psychosocial treatments such as social skills training, vocational rehabilitation, and psychotherapy; involving the family and applying psycheducation.

To achieve the standard ***(scores 3)*** the candidate **MUST**:
a. Incorporate a BioPsychoSocial approach to treatment.

A score of 4 may be awarded depending on the depth and breadth of additional factors covered; if the candidate includes most or all correct elements.

Below the Standard (scores 2 or 1):
scores 2 if the candidate does not meet (a) above, or has omissions that would detract from the overall quality response; significant omissions affecting quality scores 1.

Does Not Achieve the Standard (scores 0) if:
significant deficiencies such as having a disorganised approach; no relevant management options provided.

1.13. Category: MANAGEMENT – Initial Plan	**Surpasses Standard**	**Achieves Standard**		**Below the Standard**		**Standard Not Achieved**
ENTER GRADE (X) IN ONE BOX ONLY	**5** ☐	**4** ☐	**3** ☐	**2** ☐	**1** ☐	**0** ☐

GLOBAL PROFICIENCY RATING

Did the candidate demonstrate adequate overall knowledge and performance at the defined tasks?

Circle One Grade to Score	**Definite Pass**	**Marginal Performance**	**Definite Fail**