

A New Method of Teaching about Psychopathology and the Mental Status Examination

José Carlos Souza¹, Bruno Massayuki Makimoto Monteiro¹, Vítor Cruz Rosa Pires de Souza², Elaine Cristina Pettengill³, Carlos Alfredo Pettengill⁴, Neomar Herculano de Souza⁵

¹School of Medicine, Universidade Estadual de Mato Grosso do Sul (UEMS), Campo Grande, Brazil

²School of Medicine, Universidade para o Desenvolvimento do Estado e da Região do Pantanal (UNIDERP), Campo Grande, Brazil

³School of Psychology, Centro Universitário Unigran Capital, Campo Grande, Brazil

⁴Department of Education, Escola Municipal José Rodrigues Benfica, Campo Grande, Brazil

⁵Department of Psychology, Hospital Nosso Lar, Campo Grande, Brazil

Email: neomarsouza@uol.com.br, josecarlossouza@uol.com.br, brunoftmakimoto@hotmail.com, crpsvitor@gmail.com, elapettengill@hotmail.com, carlospettengill@gmail.com

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Abstract

The mental status examination (MSE) is an important component of clinical assessment. Medical training programs must adjust their teaching methods to facilitate MSE learning. This study aimed to describe a set of playful and purposeful strategies developed in a public university in Brazil to teach about psychopathology and the MSE. The teaching strategies were developed in the form of word search, crosswords, and syllable puzzles to catch students' attention and enhance their training process. They were designed to help improve visual perception, focused attention, processing speed and agility, vocabulary, and familiarity with specialized terminology. The results showed that the teaching strategies created a relaxed environment, providing instant feedback and allowing for productive failure. All students reported satisfaction with the learning experience. Games and creative activities, such as crosswords, word search, and syllable puzzles, can be effective teaching methods to be applied in medical schools or similar institutions where psychopathology and the MSE are taught.

Keywords

Education, Medical, Mental Health, Psychopathology, Learning

1. Introduction

Psychopathology is an independent science that investigates phenomena affect-

ing the human mind, as perceived through patients' personal experiences and relationships to the environment (Stanghellini & Broome, 2014). These processes are assessed using the mental status examination, which is the most effective technique for assessing and interpreting mental phenomena and their variants. From a broader health perspective, it is as important as physical examination (Neubauer et al., 2019).

Psychopathology is viewed as both a science and a discipline that assesses and makes sense of abnormal and pathological human behaviors and subjectivity; it is at the heart of psychiatry. In medical training, it should be included as a mandatory educational prerequisite in the curriculum for mental health professionals. It is also a key element of the shared cognitive and intellectual identity of clinicians and researchers in this field (Stanghellini & Broome, 2014).

There are many ways to teach the basic concepts of psychopathology and psychiatry. For instance, the theoretical content depicted in the arts can become an effective educational tool. Psychiatry is the medical specialty that most commonly features in films, which have become increasingly used as an ancillary educational tool in the teaching of psychopathology and psychiatry topics. Cinema can also be useful, therapeutically through cinematherapy. Some patients with first-hand experience of psychopathology report that watching films revolving around a mental illness theme has contributed to their recovery and psychoeducation (Hankir et al., 2015; Van Duppen et al., 2015). In Germany, at Witten/Herdecke University, a new interdisciplinary course used, among others, the film "Keep on the open road" to clarify complex aspects of palliative care and incorporated it as part of the palliative care education of undergraduate medical students (Dietz et al., 2012). In Brazil, some experiences making a connection between national film themes and different mental illnesses have also proven to be effective (Maia et al., 2005).

An expanded health concept considers all aspects of an individual, including physical, mental, social, spiritual, and cultural characteristics, as well as one's surroundings and relationships (Neubauer et al., 2019). Mental health assessment cannot be dissociated from physical health assessment and must be as thorough as possible, requiring close attention to all the nuances and peculiarities of human behavior and subjectivity. In order to understand the deeper layers of human experience, researchers have long used phenomenology, a research approach that seeks to investigate human experiences and how they are perceived through inner subjectivity (Rosário et al., 2020). In this context, the work of Karl Jaspers is particularly significant for its contribution to the understanding of the human psyche (Stanghellini et al., 2013).

Mental illness is a leading cause of occupational disability worldwide, and as such, clinicians and medical students must be familiar with diagnostic and treatment strategies for these conditions (Schnyder et al., 2017). The mental status examination is the most practical and inexpensive method for assessing psychological functioning and related clinical or psychopathological features in a

range of settings from primary care to emergency care. This tool has adequate sensitivity and specificity for most neurological, psychiatric, and clinical disorders. Every change in mental status must be interpreted in the context of clinical observation by differentiating between a number of systemic and metabolic disorders as well as neurological conditions that can interfere with consciousness. Given the lack of guidelines to direct further testing in case of an abnormal mental status examination, testing is predominantly guided by clinical judgment (Voss & Das, 2020). However, because the mental status examination is a complex procedure with its own terminology, students often feel confused and struggle over the course of this process.

A successful examination requires a solid theoretical basis, and a thorough introduction to psychopathological phenomena should therefore be included in medical training. This has led to a pedagogical shift in medical education to facilitate knowledge acquisition, with most medical schools adopting a purposive and motivational teaching style where students play an active role in knowledge transfer and teachers take on the role of facilitators (Monteiro et al., 2020). This approach to teaching and learning is in line with the ideas of David Ausubel, whose theories serve as the basis for many pedagogical strategies in this field (Agra et al., 2019).

Medical training programs provide students with an integrated view of the human body, moving away from Cartesian mind-body dualism and from any stigma or prejudice against mental illness. In this setting, the use of symbolic and playful activities can make learning more interesting. Therefore, the aim of this study was to present some playful and purposeful activities designed to teach about psychopathology and the mental status examination from a phenomenological perspective, in line with the active approach to learning proposed by David Ausubel.

2. Methods

This study is an account of our experience with the development of a set of playful activities in a public university in Brazil to teach third-year medical students about psychopathology and the mental status examination. Students need to be familiar with the terms used in this examination and to comprehend the complexity of the assessment of human behavior and subjectivity. During psychiatric examination, depending on the circumstances and objectives, people can lie, speak the truth, omit important details, and overstate or understate their complaints, feelings, and emotions. It is not uncommon to have persons with serious alcohol problems say they “only drink socially,” when in fact the consumption of alcohol has made them experience serious physical, psychological, and social losses; or to have persons say they have not slept “at all” for a week, when in fact they have had a few interruptions to their usual sleep time.

Medicine and its specialties rely on a shared vocabulary that is universal yet specific to these areas. Psychiatry, in particular, relies on the knowledge of psychopathology and the detailed description of mental phenomena, rather than on

origins and conscious or unconscious motivations. The science of psychopathology is a continuous process, where theoretical concepts, psychoanalytic, cognitive, or other, are minimized in favor of the patient's experience. Therefore, the language of psychopathology allows for knowledge sharing among clinicians from different theoretical backgrounds, fostering a dialogical relationship and facilitating communication on the topic of mental illness.

In 1918, Adolf Meyer developed a standardized method to evaluate the patient's mental status, referred to as the mental status examination. The purpose was to identify, diagnose and monitor the evolution of phenomenological signs and symptoms of normal and pathological mental functioning. The examination includes items that assess different areas of mental functioning, addressing issues related to appearance, dress, and grooming; level of consciousness, vigilance, psychomotor activity, voluntary and involuntary attention; recent, remote and short-term memory; orientation to self, time and place; intelligence; thought structure and content; quantitative and qualitative aspects of sensation and perception; imagination; affect; emotions; life and death instincts; sleep; eating; speech; and mood and insight into illness (Voss & Das, 2020).

The teaching of psychopathology in the context of the mental status examination involves several cognitive functions and complex concepts that are difficult to comprehend and memorize, and the use of playful, active, purposeful methods can enhance the training process. Some methodological strategies used for this purpose include syllable, word search, and crossword puzzles. The history of the latter dates back to Ancient Egypt, when rudimentary crossword puzzles were used, but the modern version of the activity is credited to British journalist Arthur Wynne who published such a puzzle in the *New York World* newspaper in 1913. His greatest innovation was in the clues provided to help readers solve the puzzle. The British armed forces also used crossword puzzles as a codebreaking tool during World War II (Patrick & Thompson, 2015).

David Ausubel is a prominent scholar in the field of active teaching and creator of the Meaningful Learning Theory (MLT), which states that a student's prior knowledge plays a crucial role in the learning and retention of new information, in a process referred to as "subsumption." According to MLT, knowledge acquired throughout life creates a cognitive structure on which new information will anchor. This is why the method is known as meaningful learning: any new concept, idea or proposition will become more meaningful if the student can link it to preexisting knowledge. As a result, these anchors are also important for retrieving previously learned information (Agra et al., 2019; Monteiro et al., 2020).

Playful activities (Figures 1-4) were developed to catch the attention of students or health professionals interested in learning about psychopathology and the mental status examination. They were designed to help improve visual perception and focused attention, increase processing speed and agility, enrich vocabulary and familiarity with specialized terminology, and improve concentration. All activities presented in this study aim to improve students' cognitive, af-

fective, and psychomotor functioning, as well as the skills and attributes required to work as a clinician or other health professional.

In the activity in **Figure 1**, participants must locate words written forward or backward in a horizontal, vertical, or diagonal direction. The definitions of the words hidden in the puzzle are provided below the image.

The words in this puzzle are written horizontally, vertically and diagonally. Some words are written backwards.

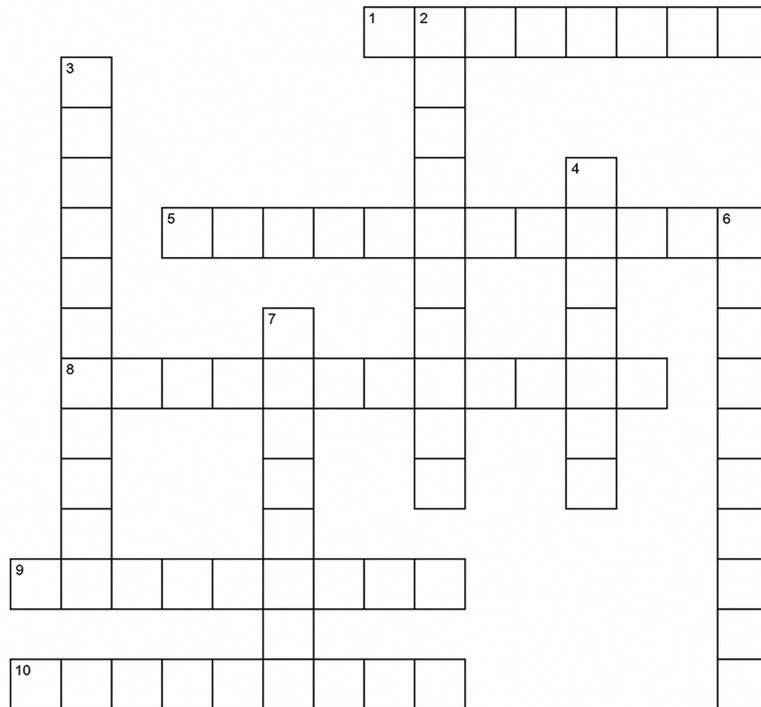
Y M I E E F N B T E R R W P E E N C
 T O D E I T B A M H O F S R L P M S
 I N E S N O E O C R I R R A L G E L
 E O G N I L R I W T A M C D H N T E
 N M N S T E V N M A G R E E E I E A
 T A A E G E O M N T M R N S C R R E
 D N G P Y S M S C D A R E I I E O O
 E I N T R O P U N I T I V E O T D T
 E A Z D E I O C O W Z L B A I T H D
 G A S S N T C E E U I N N A E U H D
 T W Y D L O V E R A C T I V I T Y A
 D X B Y S H N E E K Y A P L D S L M

1. Turning anger inward toward oneself. Commonly observed in depressed patients.
2. Mental state characterized by preoccupation with one subject.
3. Abnormality in motor behavior that can manifest itself as psychomotor agitation, hyperactivity (hyperkinesia), tics, sleepwalking, or compulsions.
4. An attack or sudden onset of certain symptoms, such as convulsions, loss of consciousness, and psychic or sensory disturbances; seen in epilepsy and can be substance induced. For types of seizures, see the specific term.
5. Frequent repetition or prolongation of a sound or syllable, leading to markedly impaired speech fluency.
6. Sign present in autistic children who continually rotate in the direction in which their head is turned.

Y M I E E F N B T E R R W P E E N C
 T O D E I T B A M H O F S R L P M S
 I N E S N O E O C R I R R A L G E L
 E O G N I L R I W T A M C D H N T E
 N M N S T E V N M A G R E E E I E A
 T A A E G E O M N T M R N S C R R E
 D N G P Y S M S C D A R E I I E O O
 E I N T R O P U N I T I V E O T D T
 E A Z D E I O C O W Z L B A I T H D
 G A S S N T C E E U I N N A E U H D
 T W Y D L O V E R A C T I V I T Y A
 D X B Y S H N E E K Y A P L D S L M

1. INTRO PUNITIVE - 2. MONOMANIA - 3. OVERACTIVITY 4. SEIZURE - 5. STUTTERING - 6. TWIRLING

Figure 1. Word search.



1. Weakness and fatigability, characteristic of neurasthenia and depression.
2. Compulsion to drink alcoholic beverages.
3. Abnormal spontaneous tactile sensation, such as a burning, tingling, or pins-and-needles sensation.
4. Mental activity that follows a totally subjective and idiosyncratic system of logic and fails to take the facts of reality or experience into consideration. Characteristic of schizophrenia. See also autistic thinking.
5. Rare condition in which a nonpregnant patient has the signs and symptoms of pregnancy, such as abdominal distention, breast enlargement, pigmentation, cessation of menses, and morning sickness.
6. Frequent repetition or prolongation of a sound or syllable, leading to markedly impaired speech fluency.
7. Normal range of mood, implying absence of depressed or elevated mood.
8. State in which a person experiences hallucinations without any impairment of consciousness.
9. Gesticulation; psychodrama without the use of words.
10. Dilation of the pupil; sometimes occurs as an autonomic (anticholinergic) or atropine-like adverse effect of some antipsychotic and antidepressant drugs.

R.: 1. ADVYAMIA - 2. DIPLOMATA - 3. PARESTHESIA - 4. DEREISM - 5. PSEUDOCYCLIS - 6. STUTTERING - 7. EUTHYMI - 8. HALLUCINOSIS - 9. PANTOMIME - 10. MYDRIASIS

Figure 2. Crossword puzzle.

The activity in **Figure 2** requires that students fill in the squares according to the clues provided below the image.

In the activity in **Figure 3**, each item (1-11) contains a definition that must be used to fill in the corresponding blanks. All squares are numbered so that those with equal numbers correspond to equal letters. Squares with no numbers are filled intuitively over the course of the activity.

The activity in **Figure 4** requires that students combine the syllables or word fragments to yield answers to each clue. This can be quite challenging, especially when the fragments do not correspond to the syllables of the target words.

Fill in the quadruples below, in each definition.
 Each square corresponds to a numbered letter, equal numbers correspond to equal letters.
 In the unnumbered spaces, the name given to a "Momentary forgetting of a name or proper noun" will appear.

False belief.

1.

Feeling of grief or desolation.

2.

Lack of coordination, physical or mental.

3.

Headache.

4.

Loss of normal speech melody.

5.

Aimless plucking or picking.

6.

Also called paraphasia.

7.

Emotional state associated with self-reproach.

8.

Extreme sensitivity to sounds.

9.

Sensation of discomfort or pressure in the head.

10.

Massive or pervasive anxiety.

11.

R - 1.DELUSION / 2.BEREAVEMENT / 3.ATAXIA / 4.CEPHALALGIA / 5.DYSPROSODY / 6.LOCCOLLATION / 7.METONYMY / 8.GUILT / 9.HYPERACUSIS / 10.CAREBARIA / 11.DREAD

Figure 3. Syllable puzzle.

1. C _____ (11)

2. C _____ (9)

3. A _____ (7)

4. F _____ (13)

5. B _____ (12)

GNI	ADY	CO	OCC
HE	ILL	EU	KIN
ESIA	CE	A	TION
FL	ST	NE	AG
SIA	TION	SIA	BR

1. Change in the normal quality of feeling tone in a part of the body.
2. Mental process of knowing and becoming aware; function is closely associated with judgment.
3. Lack or impairment of the sense of taste. Seen in depression and neurological deficit.
4. Aimless plucking or picking, usually at bedclothes or clothing, commonly seen in dementia and delirium.
5. Slowness of motor activity, with a decrease in normal spontaneous movement.

1.CENESTHESIA - 2.COGNITION - 3.AGEUSIA - 4.FLOCCOLLATION - 5.BRADYKINESIA

Figure 4. Syllable puzzle.

Feedback from the students was obtained informally. Individual feedback was collected from the participants at the end of activities by the researchers, and the results of the application of the activities were analyzed subjectively.

3. Results

A total of [*inserir número de participantes*] third-year medical students participated in the study and performed the proposed activities. Their feedback indicated that they approved the use of the activities to assist in their learning of the psychopathology content and mental status examination. All students reported satisfaction with the learning experience.

4. Discussion

Methods used to teach psychopathology and the mental status examination are quite similar around the world, and most of them adopt a phenomenological approach (Leentjens et al., 2008; Leentjens et al., 2009; Finney et al., 2016). A major barrier in the teaching and learning process is the stigma of mental illness. Of 93 types described in the literature, this is one of the most common stigmas among medical students and health professionals (Pachankis et al., 2018). This universal sociocultural phenomenon has a major impact on medical training by reducing the number of students who choose psychiatry as a specialty. The global increase in the prevalence of mental disorders has led to serious public health problems in high-income and middle-income countries due to the lack of qualified human resources to provide mental health care (Evans-Lacko et al., 2012; Simon & Verdoux, 2018; Lien et al., 2019; Pinto et al., 2020; Dalky et al., 2020).

This issue can be addressed during medical training by drawing the interest and attention of medical students to the mental status examination and by giving it the same importance as that of physical examination, especially in emergency and neurological departments. The identification of comorbidities and differential diagnosis between disorders of consciousness is usually difficult, especially when they occur in the presence of mental illness. Some clinicians disagree on the definition of consciousness as well as on the qualitative and quantitative differences between the disorders that affect this ability. An in-depth interview is essential for both physical and mental examinations to obtain information not only on the degree of consciousness impairment but also on possible causes. These disturbances can be observed in psychoactive drug users and in patients with multiple injuries, electrolyte imbalance, or mental disorders such as depression, schizophrenia, personality disorders, and dissociative disorders (Semler et al., 2001; Koita et al., 2010; Young & Rund, 2010).

Playful and artistic activities, including those of a performative nature, are excellent motivational tools for acquiring knowledge on the mental status examination. Games and fun activities can be educationally valuable tools, as they promote a relaxed environment conducive to learning. Students value immediate feedback on the type and reason for their errors (Smith et al., 2017), and

making mistakes or losing the game is a form of instant feedback on performance. This is referred to as “productive failure” and provides an opportunity to engage in problem solving and reasoning (Biehle & Jeffres, 2018). This strong motivational component of games and puzzles can be a source of encouragement to achieve learning goals (Biehle & Jeffres, 2018).

Previous studies have used films and characters (Hankir et al., 2015; Hall & Friedman, 2015; Friedman & Hall, 2015) as well as other entertainment activities, such as acrostics and crosswords (Monteiro et al., 2020), to enrich the educational experience. The validity and specificity of learning psychopathology through resources such as music, plays about depression and suicide (Souza et al., 2020a), poems, and online lectures have also been demonstrated. These pedagogical resources can be used to organize prior knowledge and facilitate subsequent learning about the mental status examination (Martins et al., 2020).

The teaching of psychopathology is associated with the theoretical foundations of the mental status examination. The different schools of psychopathology are guided by the ideas of several theorists in the field of psychology, philosophy, and psychiatry; all schools are equally important, as they complement each other. A major feature of psychopathology, as a field of knowledge, is the multiplicity of approaches and theoretical frameworks that it has incorporated over the past 200 years. This multiplicity is viewed by some as a scientific “weakness” or a proof of its immaturity. Psychopathologists are criticized for this diversity of “explanations” and theories and for their hybrid epistemological position. However, no progress is made in psychopathology by denying or invalidating conceptual and theoretical differences. Rather, advances are made through efforts to clarify such differences and further develop our position in a demystifying, open and honest debate (De Lima, 2000).

Within the schools of psychopathology most commonly used in medical education and applied in medical practice, we highlight the *descriptive* approach, with a particular interest in the structure and form of symptoms, and the *dynamic* approach, which focuses on the content of experience, the inner movements of an individual’s affections, desires, and fears. Teaching and good practices in mental health encompass the combination of a descriptive, objective, diagnostic approach with a dynamic, personal, subjective approach to patients and their illness. The *medical-naturalist* tradition is fundamentally focused on the body, on the biological being as a universal natural species. At the other end, the *existential* tradition recognizes each being as a “singular existence,” where mental illness is not viewed solely as a biological or psychological dysfunction, but rather as a particular way of existing in the world. *Behavioral* and *psychoanalytical* approaches differ mainly in the way they view human beings. In the former, each being is seen as a set of observable/verifiable behaviors regulated by specific and general stimuli, where attention is focused on the conscious cognitive representations of each individual, while in the latter each being is seen as an individual dominated by unconscious forces, desires, and conflicts. The *categorical*

school of thought treats different diagnostic categories as unique entities whose accurate identification would be one of the tasks of psychopathology; in contrast, the *dimensional* school of thought deals with dimensions or spectra. *Biological* psychopathology focuses on the neurophysiological and neurochemical aspects of mental illness and symptoms. Conversely, the *sociocultural* perspective regards mental illness as a deviant behavior, which stems from certain sociocultural factors. Finally, but not less important, in the *operational-pragmatic* perspective, the basic definitions of symptoms are formulated according to their pragmatic, clinical, or research utility. This is the model used in the DSM-5, ICD-10, and ICD-11 classifications of mental disorders. On the other hand, *fundamental* psychopathology, proposed by the French psychoanalyst Pierre Fedida, emphasizes the notion of mental illness as *pathos*, which means suffering, passion, and passivity (De Lima, 2000).

Semiology is the fundamental basis of medical practice. It consists of interviews with the patient that includes history taking, physical examination, and mental status examination. The latter begins when the participants of the interview introduce themselves to each other, representing the moment from which the clinician is already able to observe the patient's behaviors, gestures, and general psychomotricity. Even without saying a word, clinicians can (and should) obtain information by observing and listening (more than talking) to patients during the interview, since the patient is the most important person in this meeting. Many scholars even claim that the interview is an art that is much more learned than taught (Bedrikow & Campos, 2011).

In summary, the use of strategies such as word search, syllable puzzles, and crosswords allows students to learn about psychopathology and the mental status examination by developing cognitive, artistic, and intellectual skills that can be used to comprehend the theoretical knowledge that has been exposed. The method presented here can help students to learn individually or in groups, making use of their previous and current knowledge in the field. At the end, students can check their answers against the correct responses. The experience has shown excellent results, with students reporting that they are satisfied with the learning experience and have quickly and easily learned the psychopathology content and mental status examination (Souza et al., 2020b).

5. Conclusion

The clinical application of knowledge about psychopathology and the mental status examination can only be taught through interactive and innovative methods that promote active and effective learning. Given the vast number of unfamiliar concepts and terms that medical students and health professionals must learn during their training, the use of playful activities such as crosswords, word search, and syllable puzzles emerges as an effective method of teaching about psychopathology and the mental status examination in medical schools or similar institutions. This learning process can be more meaningful and effective if

students experience the contents in order to familiarize themselves with experiences and eventually become more comfortable conducting the examinations. To this end, continuous training is essential to maintain the acquired skills throughout their academic and professional life.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Agra, G., Formiga, N. S., Oliveira, P. S., Costa, M. M. L., Fernandes, M. D. G. M., & Nóbrega, M. M. L. D. (2019). Analysis of the Concept of Meaningful Learning in Light of the Ausubel's Theory. *Revista Brasileira de Enfermagem*, *72*, 248-255. <https://doi.org/10.1590/0034-7167-2017-0691>
- Bedrikow, R., & Campos, G. W. S. (2011). Clínica: A arte de equilibrar a doença e o sujeito. *Revista da Associação Médica Brasileira*, *57*, 610-613. <https://doi.org/10.1590/S0104-42302011000600003>
- Biehle, L., & Jeffres, M. (2018). Play Games and Score Points with Students. *The Clinical Teacher*, *15*, 445-450. <https://doi.org/10.1111/tct.12763>
- Dalky, H. F., Abu-Hassan, H. H., Dalky, A. F., & Al-Delaimy, W. (2020). Assessment of Mental Health Stigma Components of Mental Health Knowledge, Attitudes and Behaviors among Jordanian Healthcare Providers. *Community Mental Health Journal*, *56*, 524-531. <https://doi.org/10.1007/s10597-019-00509-2>
- De Lima, M. A. (2000). Psicopatologia e semiologia dos transtornos mentais. *Revista Brasileira de Psiquiatria*, *22*, 37-38. <https://doi.org/10.1590/S1516-4446200000100012>
- Dietz, I., Gerbershagen, K., Mielke, A., Pattberg, S., Pesch, E., Poels, M., Schmalz, O., & Joppich, R. (2012). Use of the Film *Keep on the Open Road* in Palliative Care Education of Undergraduate Medical Students: Proof-of-Concept Study. *Der Anaesthetist*, *61*, 783-788. <https://doi.org/10.1007/s00101-012-2071-8>
- Evans-Lacko, S., Brohan, E., Mojtabai, R., & Thornicroft, G. (2012). Association between Public Views of Mental Illness and Self-Stigma among Individuals with Mental Illness in 14 European Countries. *Psychological Medicine*, *42*, 1741-1752. <https://doi.org/10.1017/S0033291711002558>
- Finney, G. R., Minagar, A., & Heilman, K. M. (2016). Assessment of Mental Status. *Neurologic Clinics*, *34*, 1-16. <https://doi.org/10.1016/j.ncl.2015.08.001>
- Friedman, S. H., & Hall, R. C. (2015). Using Star Wars' Supporting Characters to Teach about Psychopathology. *Australasian Psychiatry*, *23*, 432-434. <https://doi.org/10.1177/1039856215590032>
- Hall, R. C., & Friedman, S. H. (2015). Psychopathology in a Galaxy Far, Far Away: The Use of Star Wars' Dark Side in Teaching. *Academic Psychiatry*, *39*, 726-732. <https://doi.org/10.1007/s40596-015-0337-6>
- Hankir, A., Holloway, D., Zaman, R., & Agius, M. (2015). Cinematherapy and Film as an Educational Tool in Undergraduate Psychiatry Teaching: A Case Report and Review of the Literature. *Psychiatria Danubina*, *27*, S136-S42.
- Koita, J., Riggio, S., & Jagoda, A. (2010). The Mental Status Examination in Emergency Practice. *Emergency Medicine Clinics of North America*, *28*, 439-451. <https://doi.org/10.1016/j.emc.2010.03.008>

- Leentjens, A. F., Boenink, A. D., Sno, H. N., Schijndel, R. J. S., van Croonenborg, J. J., van Everdingen, J. J., van der Feltz-Cornelis, C. M., van der Laan, N. C., van Marwijk, H., & van Osh, T. (2009). The Guideline “Consultation Psychiatry” of the Netherlands Psychiatric Association. *Journal of Psychosomatic Research*, *66*, 531-535.
<https://doi.org/10.1016/j.jpsychores.2009.03.001>
- Leentjens, A. F., van der Feltz-Cornelis, C. M., Boenink, A. D., & van Everdingen, J. J. (2008). The Practice Guideline “Consultation Psychiatry” of the Dutch Psychiatric Association for Psychiatric Consultations in Primary Care and the Hospital. *Nederlands Tijdschrift Voor Geneeskunde*, *152*, 1914-1917.
- Lien, Y.-Y., Lin, H.-S., Tsai, C.-H., Lien, Y.-J., & Wu, T.-T. (2019). Changes in Attitudes toward Mental Illness in Healthcare Professionals and Students. *International Journal of Environmental Research and Public Health*, *16*, 4655.
<https://doi.org/10.3390/ijerph16234655>
- Maia, J. M. C., Castilho, S. M., Maia, M. C., & Lotufo Neto, F. (2005). Psicopatologia no cinema brasileiro: Um estudo introdutório. *Archives of Clinical Psychiatry*, *32*, 319-323.
<https://doi.org/10.1590/S0101-60832005000600002>
- Martins, E. S., Monteiro, B. M. M., Ono, B. H. V. S., & Souza, J. C. (2020). Videoaulas como organizadores prévios no ensino em saúde durante a pandemia: Relato de experiência. *Research, Society and Development*, *9*, e4049108839.
<https://doi.org/10.33448/rsd-v9i10.8839>
- Monteiro, B. M. M., Ono, B. H. V. S., Silva, E. D. S. M., & Souza, J. C. (2020). Acrostics and Crosswords as Advance Organizers to Meaningful Learning in Medical Education. *Creative Education*, *11*, 1213-1222. <https://doi.org/10.4236/ce.2020.118090>
- Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How Phenomenology Can Help Us Learn from the Experiences of Others. *Perspectives on Medical Education*, *8*, 90-97.
<https://doi.org/10.1007/s40037-019-0509-2>
- Pachankis, J. E., Hatzenbuehler, M. L., Wang, K., Burton, C. L., Crawford, F. W., Phelan, J. C., & Link, B. G. (2018). The Burden of Stigma on Health and Well-Being: A Taxonomy of Concealment, Course, Disruptiveness, Aesthetics, Origin, and Peril across 93 Stigmas. *Personality and Social Psychology Bulletin*, *44*, 451-474.
<https://doi.org/10.1177/0146167217741313>
- Patrick, B. K., & Thompson, J. M. (2015). *An Uncommon History of Common Things*. Washington DC: National Geographic Books.
- Pinto, I. C., Bernardo, M., Sousa, S., & Curral, R. (2020). Evaluation of Mental Health Stigma on Medical Education: An Observational Study with Portuguese Medical Students. *Porto Biomedical Journal*, *5*, e074.
<https://doi.org/10.1097/j.pbj.0000000000000074>
- Rosário, C. A., Baptista, T. W. D. F., & Matta, G. C. (2020). Sentidos da universalidade na VIII Conferência Nacional de Saúde: Entre o conceito ampliado de saúde e a ampliação do acesso a serviços de saúde. *Saúde em Debate*, *44*, 17-31.
<https://doi.org/10.1590/0103-1104202012401>
- Schnyder, N., Panczak, R., Groth, N., & Schultze-Lutter, F. (2017). Association between Mental Health-Related Stigma and Active Help-Seeking: Systematic Review and Meta-Analysis. *The British Journal of Psychiatry*, *210*, 261-268.
<https://doi.org/10.1192/bjp.bp.116.189464>
- Semler, B., Benda, N., Ramskogler, K., & Walter, H. (2001). Diagnosis and Differential Diagnosis of Consciousness Disorders from the Psychiatric Viewpoint. *Wiener Medizinische Wochenschrift*, *151*, 270-273.
- Simon, N., & Verdoux, H. (2018). Impact of Education Program and Clinical Posting in

- Psychiatry on Medical Students' Stigmatizing Attitudes towards Psychiatry and Psychiatric Disorders. *L'encephale*, 44, 329-336.
<https://doi.org/10.1016/j.encep.2017.05.003>
- Smith, S., Fisher, J., & Goff, I. (2017). MediLex: The Medical Jargon-Busting Game. *The Clinical Teacher*, 14, 273-278. <https://doi.org/10.1111/tct.12547>
- Souza, J. C., Faker, J. N., Sousa, I. F., Bondarczuk, E. H., & Souza, P. A. (2020a). Ações de promoção à saúde sobre suicídio no município de Campo Grande/MS: Relato de experiência. *Research, Society and Development*, 9, e54973650.
<https://doi.org/10.33448/rsd-v9i7.3650>
- Souza, J., de Sousa, I., Penrabel, R., de Souza, P., & Bondarczuk, E. (2020b) Quiz and Games as Previous Knowledge Organizers: A Medical Training Experience Report. *Creative Education*, 11, 68-76. <https://doi.org/10.4236/ce.2020.111005>
- Stanghellini, G., & Broome, M. R. (2014). Psychopathology as the Basic Science of Psychiatry. *The British Journal of Psychiatry*, 205, 169-170.
<https://doi.org/10.1192/bjp.bp.113.138974>
- Stanghellini, G., Bolton, D., & Fulford, W. K. M. (2013). Person-Centered Psychopathology of Schizophrenia: Building on Karl Jaspers' Understanding of Patient's Attitude toward His Illness. *Schizophrenia Bulletin*, 39, 287-294.
<https://doi.org/10.1093/schbul/sbs154>
- Van Duppen, Z., Summa, M., & Fuchs, T. (2015). Psychopathology and Film: A Valuable Interaction? *Tijdschrift Voor Psychiatrie*, 57, 596-603.
- Voss, R. M., & Das, J. M. (2020). *Mental Status Examination*. Treasure Island, FL: StatPearls.
<https://www.ncbi.nlm.nih.gov/books/NBK546682>
- Young, J. L., & Rund, D. (2010). Psychiatric Considerations in Patients with Decreased Levels of Consciousness. *Emergency Medicine Clinics of North America*, 28, 595-609.
<https://doi.org/10.1016/j.emc.2010.03.010>