



Schizophrenia Spectrum Disorders

Instructor Manual

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The “Psychological Disorders” unit offers modules on anxiety and related disorders, mood disorders, schizophrenic disorders, and personality disorders.

By the end of the unit, students should know about the distinctions between the various disorders and how and when disorders “become” disorders. They should also have a general overview of the etiology, treatment, and risk factors of developing the disorder.

Note: It has long been true that studying psychological disorders has a way of making students of psychology self-conscious. Some begin looking for symptoms in themselves. Others volunteer personal information about struggles with disorders, occasionally inappropriately. Still others have a strong reaction to the idea of diagnosing disorders (which they feel—perhaps correctly—can stigmatize individuals). Instructors should simply be aware of these concerns and treat them sensitively. The emphasis on clinical aspects of psychology in this module are, in many ways, the best representation of the “core” of psychology as it is most commonly practiced in modern times.

Learning Objectives

- Relevant APA Learning Objectives (Version 2.0)
 - Describe key concepts, principles, and overarching themes in psychology (1.1)
 - Develop a working knowledge of psychology’s content domains (1.2)
 - Describe applications of psychology(1.3)

- Use scientific reasoning to interpret psychological phenomena (2.1)
- Demonstrate psychology information literacy (2.2)
- Build and enhance interpersonal relationships (3.2)
- Adopt values that build community at local, national, and global levels (3.3)
- Content-Specific Learning Objectives: Schizophrenia Spectrum Disorders
 - Describe the signs and symptoms of schizophrenia and related psychotic disorders.
 - Describe the most well-replicated cognitive and neurobiological changes associated with schizophrenia.
 - Describe the potential risk factors for the development of schizophrenia.
 - Describe the controversies associated with “clinical high risk” approaches to identifying individuals at risk for the development of schizophrenia.
 - Describe the treatments that work for some of the symptoms of schizophrenia.

Abstract

Schizophrenia and the other psychotic disorders are some of the most impairing forms of psychopathology, frequently associated with a profound negative effect on the individual's educational, occupational, and social function. Sadly, these disorders often manifest right at the time of transition from adolescence to adulthood, just as young people should be evolving into independent young adults. The spectrum of psychotic disorders includes schizophrenia, schizoaffective disorder, delusional disorder, schizotypal personality disorder, schizophreniform disorder, brief psychotic disorder, as well as psychosis associated with substance use or medical conditions. In this module, we summarize the primary clinical features of these disorders, describe the known cognitive and neurobiological changes associated with schizophrenia, describe potential risk factors and/or causes for the development of schizophrenia, and describe currently available treatments for schizophrenia.

Class Design Recommendations

Schizophrenia spectrum disorders is a great module to teach. We truly think it has the potential to be an extremely memorable lesson and also convey important issues such as the stigma

and its impact on people with the illness. That's why we recommend you give this topic two periods in order to give yourself the opportunity to incorporate the activity and demonstration as well as the recommended video and special topic.

Please also see the Noba PowerPoint slides that complement this outline.

First class period (50-75 min):

- Conduct class activity: Quiz – How much do you know about schizophrenia?
- Discuss the phenomenology of schizophrenia and related psychotic disorders
- Demonstration: The Disordered Monologue – An Illustration of the Symptoms of Schizophrenia 15
- Explain the cognitive neuroscience behind schizophrenia

Second class period (50-75 min):

- Describe risk factors for developing schizophrenia
- Show Elyn Saks' TED talk
- Review treatments for schizophrenia
- Special topic: Is stigma a barrier to accessing therapeutic services for mental illnesses?

Module Outline

The Phenomenology of Schizophrenia and Related Psychotic Disorders

- At some point in our lives, it is likely that we have encountered disheveled, seemingly paranoid individuals, talking to themselves or yelling at thin air. There is a chance that some of these individuals have schizophrenia. Psychotic disorders like schizophrenia can involve various symptoms, such as: delusions, hallucinations, disorganized speech, and behavior, abnormal motor behavior (including catatonia) and negative symptoms like **ahedonia/amotivation** and blunted affect/reduced speech.
- The most common types of delusions are persecutory, whereby individuals might think

that others are trying to harm or plot against them. Grandiose delusions refer to when people believe they have special abilities. **Hallucinations** are auditory, visual, olfactory, gustatory or somatic perceptual experiences that occur without any external stimulation. Usually, hallucinations have a negative voice (e.g., “you are a loser”). People with schizophrenia also display **disorganized speech**, or speech/responses that lack logical flow. **Disorganized behavior** refers to a style of behaving or conducting oneself in a manner considered strange by the rest of society. Abnormal motor behavior can include **catatonia**, which refers to a lack of reaction to external events.

- Negative symptoms refer to an absence of behaviors or responses that we normally see in others, but are absent in schizophrenics. For example, **anhedonia** or **amotivation** refer to a general lack of interest or motivation to engage in one’s social environment or pleasurable activities. Notably, neither of these two symptoms reflects the lack of ability to experience pleasure in pleasant activities, rather a lack of drive to pursue positive outcomes. **Flat affect** and **alogia** (reduced speech) are symptoms that refer to the inability to show affect through facial expressions, gestures, or speech intonation.
- There are many types of psychotic disorders, schizophrenia being the most common, however the book also provides a table with other psychotic disorders including schizophreniform disorder, schizoaffective disorder, delusional disorder, and brief psychotic disorder (see table 1 for more details).

The Cognitive Neuroscience of Schizophrenia

- In addition to the problems mentioned above, schizophrenia also affects **functional capacity**, or the ability to care for oneself physically (e.g., bathing) and emotionally (e.g., engaging in social relationships). Other cognitive deficits can include complications with **episodic** and **working memory**, the ability to learn and recall new information and the ability to maintain information in memory for a short period of time, respectively. Additionally, **processing speed** is slower in schizophrenics than healthy people. These cognitive deficits are usually present prior to onset and are even found in relatives of schizophrenics, albeit to a milder degree. Some schizophrenics also have social cognitive impairments, such as the ability to read facial expressions.
- Neuroimaging tools such as **magnetic resonance imaging** and **positron emission topography** allows scientists to understand the brain mechanisms and cognitive impairments in schizophrenics. For instance, research findings demonstrate that impairments in working and episodic memory are related to dysfunction in the dorsolateral

prefrontal cortex (DLPFC) among people with schizophrenia. Additionally, imaging tools demonstrate that people with schizophrenia have overall reduced brain volume, and consuming drugs (e.g., marijuana, alcohol) might be responsible for these structural changes. As milder forms of these neurobiological changes are also seen in relatives of people with schizophrenia, there may be a genetic component to the illness.

Risk Factors for Developing Schizophrenia

- Schizophrenia is a variable disorder; therefore, it is likely that the genetic risk for developing schizophrenia is due to the summation of various genes acting together rather than a single “schizophrenia gene”. Importantly, some of the genes related to schizophrenia are also associated with other psychological disorders, including depression and autism.
- Numerous environmental factors have also been implicated in the development of schizophrenia. Complications in pregnancy (e.g., infection, heightened stress) and at birth (e.g., lack of oxygen) are related to increased risk. Children who grow up in urban environments or are born to older fathers are also at an elevated risk level. Due to the broad nature of these risk factors, most people who encounter them do not develop schizophrenia; however, they do give us hints about **neurodevelopmental** factors that may leave someone vulnerable.
- A significant area of research in psychotic disorders has been to identify those that display recently developed milder symptoms of psychosis and experience distress related to those symptoms. 35% of these clinically at-risk people develop a psychotic disorder when followed over time. To identify these people, the DSM-5 added the “Attenuated Psychotic Syndrome” to the manual, which generated a lot of controversy. Some think that adding the category would create mental disorders where there are none, while others believe that adding the category will incite research and help reduce the development of full-blown symptoms.

Treatment for Schizophrenia

- Currently, the first defense against schizophrenia is the use of antipsychotic drugs: typical and atypical. Typical drugs block the D2 type **dopamine** receptor (i.e., a neurotransmitter that regulates the other neurotransmitters) and act to reduce hallucinations, delusions, and disorganized speech. Atypical drugs act through a number of mechanisms and have more or less of the same impact on symptoms, but with fewer motor side effects. However, atypical drugs do have other side effects, such as increased risk of diabetes, heart disease

and death. Both atypical and typical drugs do not work to enhance cognitive function and currently there are no other medications on the market that do so. However, an intervention, known as the Cognitive Enhancement Therapy (CET) has been shown to improve cognitive, social cognitive, and functional symptoms in young people with schizophrenia.

Difficult Terms

Alogia
Anhedonia/amotivation
Catatonia
Delusions
Disorganized behavior
Disorganized speech
Dopamine
Episodic memory
Flat affect
Functional capacity
Hallucinations
Magnetic Resonance Imaging
Neurodevelopmental
Positron emission tomography
Processing speed
Working memory

Lecture Frameworks

Overview

We've all seen that person who is behaving in a strange manner, talking incomprehensibly to themselves on a subway or street, or yelling at thin air. In fact, it is likely that many of us have encountered someone with schizophrenia even if we were unaware of it. At the same time, schizophrenia remains one of the most misunderstood mental illnesses. In accordance with the APA learning objectives, we think that it is important to engender awareness of the stigma

surrounding schizophrenia, to put a human face on the people with the disorder, to encourage acceptance, and dispel some of the stereotypes surrounding the disease. The following lecture will emphasize the aforementioned in addition to providing students with information on the phenomenology of schizophrenia and related disorders, delve into the cognitive neuroscience behind it, describe risk factors for schizophrenia and review treatments currently used to treat it.

First Class Period:

- Activity: Quiz - How Much Do You Know About Schizophrenia?
 - A great way to introduce the topic is to administer this quiz (see Activities and Demonstrations). This 15-20 minute activity is sure to highlight some of the misconceptions and stigma surrounding schizophrenia and related disorders.
- Lecture: Refer to the PowerPoint slides for the following:
 - Introduce schizophrenia and dives into its *phenomenology*.
 - Provide overall descriptions of delusions and hallucinations as well as information on the specific types.
 - Explain two key positive symptoms of schizophrenia – *disorganized speech* and *behavior* – and dive into some of the *negative symptoms* of the disorder.
- Demonstration: The Disordered Monologue – An Illustration of the Symptoms of Schizophrenia
 - This powerful, short demonstration exemplifies a verbal encounter of a person with schizophrenia and illustrates disturbances in thought, speech, and affect (i.e., neologism, delusions, etc.). Including a class discussion, this demo should take 10-15 minutes. See Activities and Demonstrations for more details.
- Lecture: Refer to the PowerPoint slides for the following:
 - Provide information on the *cognitive neuroscience of schizophrenia*

Second Class Period:

- Lecture: Refer to the PowerPoint slides for the following:

- Describe the *risk factors* of schizophrenia
- Discussion-warm-up:
 - After talking about the risk factors, we recommend showing a video of Elyn Saks' 15-minute TED talk: http://www.ted.com/talks/elyn_saks_seeing_mental_illness. Elyn is an accomplished professor of law, psychology and psychiatry. Elyn also has schizophrenia. Her talk is so poignant that it will warrant a discussion after the students watch it.
 - NOTE: This clip breaks up the discussion and provides a nice little warm up before diving into types of treatment, but will also fit nicely after having talked about the symptoms and risk factors of schizophrenia.
- Lecture: Refer to the PowerPoint slides for the following:
 - Offer information about two psychopharmacological *treatments* of schizophrenia: atypical and typical drugs.
 - Provide information on a psychological intervention shown to benefit people with schizophrenia.
- Special Topic: Is Stigma a Barrier to Accessing Therapeutic Services for Mental Illnesses?
 - If you have time left in the class, diving into this topic after discussing treatments for schizophrenia will be a fitting transition and a great way to end the class.
 - An expert on stigma and illness, Richard Corrigan (1998; see evidence-based teaching section) offers a lot of useful information in his article about how medical professionals in the 1960's viewed mental illnesses as "made up" afflictions, how a person with diabetes can be treated very differently from a person with schizophrenia (even though both illnesses are chronic and biological in nature) by family, friends, and even medical professionals. Give students an opportunity to generate ideas as to why this differential treatment might occur for one chronic illness (e.g., diabetes), but not another (e.g., schizophrenia).
 - It is likely that some students will mention stigma or embarrassment as answers. According to Corrigan, people are generally uncomfortable with being labeled and often avoid medical care because they don't want to be perceived as mentally ill by their social network. This stigma can interfere with treatment seeking in two ways: It lowers self-esteem and leads to missed social opportunities. Ask students how they think scientists, clinicians, laypeople, and even society as whole can encourage people with schizophrenia to seek treatment.

- Corrigan's work promotes the development of anti-stigma programs to encourage care-seeking. See article for more details.

Activities & Demonstrations

Quiz - How Much Do You Know About Schizophrenia?: In-Class Activity

This activity is adapted from a teacher's manual from the Schizophrenia Society of Canada. The link to the manual can be found here: http://www.schizophrenia.ca/docs/Teachers_Manual.p...

Time 15-20 minutes

Materials You will need the 10 true or false questions and their explanations below. Administer the quiz by putting up questions on PowerPoint and having students answer with clickers (or by raising their hands).

Directions

- You could present the T/F questions one-by-one, wait for the students to provide their answers and then go over the correct explanation after each statement. Alternatively, you could present all the T/F statements, allow students to respond, and review all the answers at the end.
- Based on your preferences, leave 5-10 minutes for a discussion either throughout the activity, or for when the activity is complete.

Quiz

1. Schizophrenia is a rare illness.
2. Schizophrenia is a brain disease.
3. Schizophrenia usually strikes older people.
4. More males than females develop schizophrenia.
5. Schizophrenia is caused by poor parenting.

6. Schizophrenia is caused by street drugs.
7. People who have schizophrenia are usually violent and dangerous.
8. People with schizophrenia have multiple or split personalities.
9. Schizophrenia can be successfully treated.
10. People with schizophrenia are developmentally disabled, i.e., they have a low level of intelligence.

Answers

1. Schizophrenia is a rare illness. [False]. Schizophrenia strikes one in one hundred people, worldwide.
2. Schizophrenia is a brain disease. [True]. Brain imaging techniques (MRI and PET) show there is a change in structure and functioning of the brain.
3. Schizophrenia generally strikes older people. [False]. The age of onset is usually between 15 and 25 years of age.
4. More males than females develop schizophrenia. [False]. Males tend to contract the disease at a younger age than females but the illness is distributed equally between the two sexes.
5. Schizophrenia is caused by poor parenting or an unhappy childhood. [False]. For much of the twentieth century, bad mothering or poor family interactions were cited as causes. Neither of these theories has any validity. Schizophrenia is a neurobiological disease involving brain changes. We do not know the exact cause of the illness, but modern research tools are helping to bring the various pieces of the puzzle together. We do know that it is an organic (physical, biological) disease and is the fault of no one.
6. Schizophrenia is caused by street drugs. [False]. Schizophrenia is not caused by street drugs. Some researchers believe, however, that street drugs can precipitate schizophrenia in an individual who has a predisposition to develop the disease. Street drugs can, however, make the illness worse for someone who already has the disease.
7. People who have schizophrenia are usually violent and dangerous. [False]. People who have schizophrenia tend to be vulnerable, fragile people. If violent, the violence is most often directed towards themselves: suicide.
8. People with schizophrenia have multiple or split personalities. [False]. People with schizophrenia are split from reality, rather than having a multiple or split personality.
9. Schizophrenia can be successfully treated. [True]. Schizophrenia cannot be cured, but the symptoms can be treated.

10. People with schizophrenia are developmentally disabled, i.e., they have a low level of intelligence. [False]. People with schizophrenia have a normal or above-normal intelligence.

The Disordered Monologue – An Illustration of the Symptoms of Schizophrenia: In-Class Demonstration

Symptoms of schizophrenia may be difficult for students to understand. This demonstration, offered by Osberg (1992), is a way to exemplify a verbal encounter with a person who has schizophrenia, illustrating some common disturbances in speech, affect, and behavior.

Time 15 minutes: 5 minutes for monologue, 10 minutes for discussion.

Materials The monologue is provided below. It might be helpful to have the discussion prompts on a PowerPoint slide after you “perform” the monologue.

Directions

- This demo may require a pinch of theatrics! The idea is to spontaneously launch into a monologue, which depicts the thought patterns and speech of someone with schizophrenia.
- The author of this demonstration advises that the monologue below will be best delivered after the instructor has practiced it a few times and can perform it without reading off a screen or notes.
- Monologue: “Okay class, we’ve finished our discussion of mood disorders. Before I go on I’d like to tell you about some personal experiences I’ve been having lately. You see, I’ve [pause] been involved in highly abstract [pause] type of contract [pause] which I might try to distract [pause] from your gaze [pause] if it were a new craze [pause] but the sun god has put me into it [pause] the planet of the lost star [pause] is before you now [pause] and so you’d better not try to be as if you were one with him [pause] because no one is one with him [pause] anyone who tries to be one with him [pause] always fails because one and one makes three [pause] and that is the word for thee [pause] which must be like the tiger after his prey [pause] and the zommon is not common bausel it is a zomimon’s zommon. [pause] But really class, [holding your head and pausing] what do you think about what I’m thinking about right now? You can hear my thoughts can’t you? I’m thinking I’m crazy and I know you [point to a student] put that thought in my mind. You put that thought there! Or could it be that the dentist did as I thought? She did! I thought she put that radio transmitter into my brain when I had the Novocain! She’s making me think this way and

she's stealing my thoughts!"

- After the monologue, explain that this demonstration was meant to portray the speech and thought pattern of someone with schizophrenia. You can ask the students to give their reactions, which can lead into a discussion. Some topics to discuss with the class may revolve around:
- How do you [the students] think that people with schizophrenia might react to others' perceptions of them?
- Do you think that the seemingly bizarre and meaningless sentences uttered by schizophrenics are meaningless to them?
- What might be especially frustrating for someone with schizophrenia when trying to communicate with others?
- When discussing schizophrenia symptoms in detail, the instructor will be able to refer back to the demo as it contains common disturbances in thought, speech, and affect, for example:
- Loose associations (jumping from topic to unrelated topic)
- Neologisms (creating new words)
- Perseveration (repeatedly returning to the same topic)
- Clanging (rhyming and punning).
- Thought insertion (feeling people are inserting thoughts into one's mind), thought withdrawal (believing someone is removing one's thoughts)
- Delusions of being controlled (by some external force).

Note Osberg mentions that all the students in his class recommended that he use the demonstration with future classes and no student (thus far) reacted negatively to the demonstration. However, just in case he advises to have contact information for local mental health services at hand.

Osberg, T. M. (1992). The Disordered Monologue: A Classroom Demonstration of the Symptoms of Schizophrenia. *Teaching of Psychology*, 19(1), 47–48.

Outside Resources

Book: Ben Behind His Voices: One family's journal from the chaos of schizophrenia to hope (2011). Randy Kaye. Rowman and Littlefield.

Book: Conquering Schizophrenia: A father, his son, and a medical breakthrough (1997). Peter Wyden. Knopf.

Book: Henry's Demons: Living with schizophrenia, a father and son's story (2011). Henry and Patrick Cockburn. Scribner Macmillan.

Book: My Mother's Keeper: A daughter's memoir of growing up in the shadow of schizophrenia (1997). Tara Elgin Holley. William Morrow Co.

Book: Recovered, Not Cured: A journey through schizophrenia (2005). Richard McLean. Allen and Unwin.

Book: The Center Cannot Hold: My journey through madness (2008). Elyn R. Saks. Hyperion.

Book: The Quiet Room: A journal out of the torment of madness (1996). Lori Schiller. Grand Central Publishing.

Book: Welcome Silence: My triumph over schizophrenia (2003). Carol North. CSS Publishing.

Web: National Alliance for the Mentally Ill. This is an excellent site for learning more about advocacy for individuals with major mental illnesses such as schizophrenia.

<http://www.nami.org/>

Web: National Institute of Mental Health. This website has information on NIMH-funded schizophrenia research.

<http://www.nimh.nih.gov/health/topics/schizophrenia/index.shtml>

Web: Schizophrenia Research Forum. This is an excellent website that contains a broad array of information about current research on schizophrenia.

<http://www.schizophreniaforum.org/>

Evidence-Based Teaching

Matteo, E. K., & You, D. (2012). Reducing mental illness stigma in the classroom. *Teaching of Psychology*, 39(2), 121–124.

Matteo and colleagues conducted a study in which they evaluated the utility of three interventions (i.e., education, video, and contact) in reducing introductory psychology students' stigmatizing perceptions of mental illness patients. They found that students were significantly more likely to be comfortable around these individuals after meeting three people from the local community who had mental illnesses. These results underscore the importance of bringing real-life examples to the undergraduate classroom.

Corrigan, P. W. (1998). The impact of stigma on severe mental illness. *Cognitive and Behavioral Practice*, 5(2), 201–222.

Many people are exposed to a person's experience of a mental illness through various forms of media (e.g., movies, TV shows, etc.). However, these depictions are often misrepresentative and can generate societal stigma, causing people living with mental illnesses to experience disdain and differential treatment. In turn, these experiences can lead to lowered self-esteem, lost opportunities in various aspects of life as well as a fear of being unable to attain one's goals. The social cognitive theory has been used to understand the stereotyping that leads to stigma and can also be used to develop a cognitive behavioral therapy model. The model can be applied to: 1) people who hide their mental illnesses for fear of being shamed; 2) people who are characterized as mentally ill; and 3) the general public or society, which continues to fall prey to distorted information and stigma-inducing myths.

Osberg, T. M. (1992). The Disordered Monologue: A classroom demonstration of the symptoms of schizophrenia. *Teaching of Psychology*, 19(1), 47–48.

See Activities and Demonstration Section for more details.

Suggestions from the Society for Teaching's Introductory Psychology Primer

Keeley, J. (2013). Abnormal and Therapy. In S.E. Afful, J.J. Good, J. Keeley, S. Leder, & J.J. Stiegler-Balfour (Eds.). *Introductory Psychology teaching primer: A guide for new teachers of Psych 101*. Retrieved from the Society for the Teaching of Psychology web site: <http://teachpsych.org/ebooks/intro2013/index.php>

POSSIBLE ASSESSMENTS (Out of Class). Students search the Internet for information regarding psychological disorders and evaluate the quality of that information. The assignment can be done in groups and includes a peer-evaluation component. For a full description of the activity, see the reference to Casteel (2003) below. (LO 4.4)

(In or Out of Class). Questions Regarding Controversial Cases: The student is presented with a series of descriptions of an abnormal behavior under changing circumstances (cultural setting, severity of the behavior, etc.) and then asked if the behavior is normal or not.

ACTIVITIES & TECHNIQUES (In Class)

Discussion of Abnormality: Enter class and behave oddly in some way (e.g., talking to yourself, showing excessive irritability, breaking social convention by standing in an unusual place). Then ask students to identify what was unusual about your behavior and why it is unusual. Based upon the reasons and examples they give, you can identify students' responses as reflecting various definitions of abnormality (i.e., distress, dysfunction, unusualness, dangerous, deviance). This activity is a fun way to get students engaged with the material and how it applies to their lives.

Videos of Individuals with Disorders: Cengage has published a large online database of video clips across a range of disorders and topics relevant to abnormal psychology (<http://clipsforclass.com/abnormal.php>). This library is an economical (both monetarily and in terms of your time) way of demonstrating what these disorders are like.

RELEVANT TOP ARTICLES (Annotated Bibliography)

Balch, W. R. (2009). Using an exemplification exercise to teach psychological disorders. *Teaching of Psychology*, 36, 55-58.

This article describes an exercise whereby students describe individuals they know or hypothetical examples of people with various mental disorders. The exercise led to improved retention on a post-test of information about the disorders relative to a lecture-only control.

Casteel, M. A. (2003). Teaching students to evaluate Web information as they learn about psychological disorders. *Teaching of Psychology*, 30, 258-260.

This article provides a method for instructing introductory students about psychological disorders using an Internet based search exercise. The activity emphasizes improving students' ability to judge the quality of Internet resources while simultaneously investigating content.

Conner-Greene, P. A. (2006). Interdisciplinary critical inquiry: Teaching about the social construction of madness. *Teaching of Psychology*, 33, 6-13.

In this article, the author provides a variety of background resources and commentary for understanding the social construction of mental illness. She also describes five pedagogical techniques to engage students with the material, including excellent discussion prompts. This article is a superb starting point for engaging your students in critical thinking regarding mental

disorders.

Tomcho, T. J., Wolfe, W. L., & Foel, R. (2006). Teaching about psychological disorders: Using a group interviewing and diagnostic approach. *Teaching of Psychology*, 33, 184-188.

This article describes an exercise where an interviewer and pseudo-client perform an interview for the class. Based upon the interview, the students must decide which among a class of disorders best describes the individual. The authors provide scripts for an anxiety disorder, a mood disorder, and a psychotic disorder.

Links to ToPIX Materials

Activities, demonstrations, handouts, etc.:

<http://topix.teachpsych.org/w/page/19981032/Psychological%20Disorders%20in%20the%20Classroom>

Books & Films:

<http://topix.teachpsych.org/w/page/39234720/Disorders>

In the News:

<http://topix.teachpsych.org/w/page/26711727/Psychological%20Disorders%20in%20the%20News>

Video/Audio:

<http://topix.teachpsych.org/w/page/19981031/Psychological%20Disorders%20Video>

Teaching Topics

Teaching The Most Important Course

http://nobaproject.com/documents/1_Teaching_The_Most_Important_Course.pdf

Content Coverage

http://nobaproject.com/documents/2_Content_Coverage.pdf

Motivating Students

http://nobaproject.com/documents/3_Motivating_Students_Tips.pdf

Engaging Large Classes

http://nobaproject.com/documents/4_Engaging_Large_Classes.pdf

Assessment Learning

http://nobaproject.com/documents/5_Assessment_Learning.pdf

Teaching Biological Psychology

http://nobaproject.com/documents/6_Teaching_Bio_Psych.pdf

PowerPoint Presentation

This module has an associated PowerPoint presentation. Download it at [http://nobaproject.com//images/shared/supplement_editions/000/000/143/Schizophrenia%-20Spectrum%20Disorders.ppt?1416603061](http://nobaproject.com//images/shared/supplement_editions/000/000/143/Schizophrenia%20Spectrum%20Disorders.ppt?1416603061).

About Noba

The Diener Education Fund (DEF) is a non-profit organization founded with the mission of re-inventing higher education to serve the changing needs of students and professors. The initial focus of the DEF is on making information, especially of the type found in textbooks, widely available to people of all backgrounds. This mission is embodied in the Noba project.

Noba is an open and free online platform that provides high-quality, flexibly structured textbooks and educational materials. The goals of Noba are three-fold:

- To reduce financial burden on students by providing access to free educational content
- To provide instructors with a platform to customize educational content to better suit their curriculum
- To present material written by a collection of experts and authorities in the field

The Diener Education Fund is co-founded by Drs. Ed and Carol Diener. Ed is the Joseph Smiley Distinguished Professor of Psychology (Emeritus) at the University of Illinois. Carol Diener is the former director of the Mental Health Worker and the Juvenile Justice Programs at the University of Illinois. Both Ed and Carol are award-winning university teachers.

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