

CASE STUDY - MENTAL HEALTH

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The following case vignette provides key concepts that could be considered when developing a plan of care for a patient who may require a controlled substance to manage their health concerns. As with any clinical situation, there are many patient variables that must be considered, including comorbid conditions, social determinants of health and their personal choices. You may choose to include different or additional health history and physical examination points, diagnostic tests, differential diagnoses and treatments depending on your patient's context however this case vignette focuses on the aspects relevant to controlled substances.

Epilogue

Kevin is a 30 year old male who comes to the NP clinic feeling very anxious during exam week. He is in his last year of graduate course work and he is relying on high grades to keep his scholarships. He is complaining of loss of sleep, irritability, palpitations, and difficulty concentrating. He would like the little white pills he has had before to help him cope. He gets frustrated as you continue your assessment and cannot understand why you just can't write the Rx and let him get back to studying.

On further assessment, you find he has a family history of anxiety and depression. He denies having anxiety himself, but admits this has happened to him frequently when stressed. He lives in the by himself in a basement apartment, has family is not in town, has few friends and is financially insecure. He denies suicidal thoughts or plans.

Scene 1

Clinical office – include desk, two chairs, examining bed, EMR on computer, need reflex hammer, BP cuff/machine, stethoscope. NP Jill is wearing sweater and slacks, with a lab coat. Blonde shoulder length hair.

Jill: Hi Kevin. Good to meet you. What brings you to clinic today?



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Kevin: I'm doing an MBA and I have exams next week. I get really anxious with studying...I just need some of the little white pills I got last semester to keep me calm and help me get through the next week. These are really big exams and I need to get a good grade or I'll lose my scholarship and then I won't be able to finish. I've only got one more semester after this one...I'm SO close! I took a test about anxiety online the other day and scored 6 and then it said I should talk to someone about it. I'm not sure but I think it was called a "GAD" test...does that sound right?

Jill: Yes...there is a test called the GAD-2 as well as the GAD-7.

Kevin: OK...I did the one with two questions and answered "nearly every day" for both of the questions. I remember it asked if I have been feeling nervous and anxious for the last two weeks and if I wasn't able to stop worrying about things. With exams coming, I'm anxious and worry all the time but it will stop once exams are done. That's why I only need a few pills.

Kevin's GAD-2 score is 6 **GAD-2 Tool:**
which suggests an
anxiety disorder.

Over the past two weeks, how often have you been bothered by the following problems? Rate each item on the following scale:

- Not at all (0.0)
- Several days (1.0)
- More than half the days (2.0)
- Nearly every day (3.0)

Feeling nervous, anxious or on edge?



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Not being able to stop or control worrying

Jill is thinking about how to structure the health history to get the information she needs from Kevin to decide on the treatment plan. The questions could be in little clouds around her head that the student could click on to get Kevin's answers. Using OLDCARTS tool, questions and Kevin's answers could look as shown in the script:

Jill: OK...let's talk about this anxiety and exam thing. There are a few questions that I need to ask you first. It won't take long but I need some information first to make sure I give you the right pills. When did the anxiety start?"

Kevin: It started a couple of weeks ago when I started studying. I have 3 exams in the next 5 days and they are going to be really tough.

Jill: How does this "anxiety" make you feel?

Kevin: I have a really hard time concentrating and I feel edgy and irritable. I'm having a hard time sleeping. My heart even feels like it's jumping out of my chest sometimes!

Jill: Do you have pains in your chest?

Kevin: Do you mean like heart attack pains? No... my Grandpa had a heart attack and I saw it...it's nothing like that at all.

Jill: How long do the episodes last when you start to feel anxious?

Kevin: They can last from a few minutes to the whole day. That's what usually happens when I have a lot of studying to do.



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Jill: Is there anything that makes the symptoms worse besides the exams?

Kevin: It gets worse the longer I try to sit and concentrate. It's like the more I think about it, the more anxious I get! I noticed that the heart thing was worse the other day after I'd had a couple of large coffee to try to keep me awake.

Jill: How much coffee do you drink in a day?

Kevin: When I'm home I have 2 or 3 coffee a day and then whatever cola I have in the house.

Jill: Have you tried anything besides the pills to help with the anxious feelings?

Kevin: No...no time for that.

Jill: What was the name of the "little white pills" you had the last time you had to write exams?

Kevin: I can't remember the name. I was told to take one tablet when I felt I felt anxious up to 3 times spaced out through the day.

Jill: Did you take them as directed?

Kevin: I only took them once or twice the first couple of days but I liked feeling calmer because I could concentrate better so I took them 3 times a day right through my exams. I took an extra one on a couple of days when it was really bad but that wasn't while I was writing exams...only before. I was too afraid that I'd be "out of it" if I took too many and mess up the exam that way.



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Jill thinks about another anxiety tool that may help her with diagnosing Kevin's problem.

GAD-7 Tool:

In the last 2-weeks, how often have you been bothered by the following problems? Rate each item on the following scale:

- Not at all (0.0)
 - Several days (1.0)
 - More than half the days (2.0)
 - Nearly every day (3.0)
1. Feeling nervous, anxious or on edge?
 2. Not being able to stop or control worrying.
 3. Worrying too much about different things.
 4. Trouble relaxing.
 5. Being so restless that it is hard to sit still.
 6. Becoming easily annoyed or irritable.
 7. Feeling afraid as if something awful might happen.

Kevin answers “nearly every day” to the first 5 questions and then “more than half the days” to 6 and 7.

Reflection questions:

- **What is Kevin's score?**
 - Correct answer is 19.
- **Given the history information, what should Jill consider when she is developing her differential diagnoses?**
 - Correct answer is the duration of symptoms, family history, substance use, physical findings.

Jill: That's good. OK...next I need to know a little about your family. Is there any history of heart problems, thyroid problems, stomach problems, cancer...anything like that?

Kevin: No...nothing like that except for my Grandpa who had a heart attack. My Dad's mother died before I was born so I don't know about her. My mother's always been a “nervous person”. In fact, now that I think of it, she takes an anxiety pill and I think the name sounded like the one I had last time.



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Jill: Do any other relatives that have anxiety?

Kevin: My mom's mother and two of my aunts had some sort of "anxiety" but I don't know if they took anything for it. Mom's taken her pill for years...like since I was a kid!

Jill: OK...that's helpful. What about your father?

Kevin: Wow...that's a whole other story! I think my Dad is depressed. He had a big problem with drinking too much the whole time I was growing up. He'd drink like 9 or 10 beer every night and I remember him being sad all the time. He stopped drinking about 2 years ago but he's even sadder now. He wouldn't stop drinking and wouldn't go for help. He said he'd never take a "crazy pill" because he was too worried about people finding out.

Jill: Wow...that must have been tough on you. Do you drink alcohol?

Jill thinks about Kevin's answers to other health history questions that are important:

- *Kevin takes no other prescription medications and uses Tylenol occasionally for headaches. He takes no vitamins or herbals.*
- *Kevin doesn't have any allergies.*
- *He has no personal history of chronic illnesses like diabetes or hypertension.*
- *He's never had surgery.*
- *His diet is poor – mostly take out and processed foods.*
- *His only exercise is walking to work and school.*
- *He works part time in a coffee shop 15-20 hours/week.*
- *Finances are tough so he depends on scholarships. Former bank teller before returning to school.*
- *Lives alone in small apartment.*
- *Family live about 2 hours away – he doesn't get home much and doesn't share his anxiety to avoid looking weak.*



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Jill: Thanks for sharing about your alcohol use. What about drugs like marijuana or cocaine?

Kevin: Well...I used marijuana very rarely when I was doing my undergrad degree. I bet I didn't use it more than a dozen times...I didn't like how it made me feel at all! And any of the hard stuff? Never!

Jill considers using the CAGE-AID questionnaire to assess Kevin's alcohol and drug use.

Jill finds out that Kevin consumes 7 or 8 beer over most weekends but not when he's studying or writing exams and less when he works weekends.

- CAGE-AID Score – 1 point for “G”

Jill considers the need to do any further assessment with Kevin to determine his risk for addiction if she is considering granting his request.

What other tests could Jill run?

- GAD-7 – would give more detail on anxiety symptoms.
- PHQ-9 – screens for possible depression.
- Addiction risk assessment – patients with acute or chronic anxiety are at increased risk for comorbid addiction.

Jill: OK Kevin, now I'm going to do a bit of a physical exam if that's OK with you. I don't expect to find anything abnormal but it's good to check things out.

Kevin: Sure why not...I never get anything like this done because I never come to the clinic!

Jill considers the physical exam she would complete on Kevin at this visit.



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Scene of Kevin sitting and NP standing beside then have cropped out circles with icons that are clickable that outline the exam items:

- BP and heart rate
- Cardiovascular exam
- Respiratory exam
- thyroid exam

No exam is indicated but could complete vital signs (BP and heart rate) and a cardiovascular, respiratory and thyroid exam.

Findings for Kevin's exam are all within normal limits for his age and gender.

Would you order any lab tests for Kevin at this visit?

Select lab tests you could order for Kevin:

- Complete Blood Count – **CORRECT**
- Fasting glucose – **CORRECT**
- Liver profile – **Not Indicated**
- Fasting lipids – **Not indicated**
- Thyroid screen – **CORRECT**
- Electrocardiogram – **Not indicated**
- Electrolytes – **CORRECT**
- Urinalysis – **CORRECT**
- Urine toxicology – **CORRECT**
- No tests would be ordered – **CORRECT**

According to Bhatt and colleagues (2016), when it appears unlikely that the anxiety symptoms are due to a medical cause (e.g. diabetes, cardiovascular or thyroid



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pathology) and the presentation is typical for anxiety disorder, the NP can choose to order the tests listed above.

From <http://emedicine.medscape.com/article/286227-workup>

What are your differential diagnoses for Kevin's symptoms?

- Situational anxiety
- Substance Use Disorder
- GAD
- Excess caffeine intake
- Depression
- Bipolar

What is your leading or most likely diagnoses for Kevin's symptoms?

- Situational anxiety (phobia spectrum – test anxiety).

Kevin: So what do you think I've got going on here?

Jill: I think you have what is sometimes called situational anxiety or test anxiety. It's a little hard to say for sure because this is the first time I've seen you and I have nothing to compare when you aren't having symptoms because of exams. It is a type of anxiety that happens under certain situations and can be every bit as distressing as chronic anxiety or generalized anxiety (what you took the online test for) but it only lasts a short time. My concern is whether the symptoms will start lasting longer or become more severe. I didn't ask you this before but do you ever feel so anxious that you feel like harming yourself?

Kevin: You mean like suicide? NEVER! Like I keep saying, I know when it will start and I know it will be over as soon as I hand in that last exam. I don't even get worried while I wait for my grades. So...after all this...are you going to give me the pills I came for?



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What would your treatment plan include today for Kevin?

Answer:

The BEST answer today is **(b) Lorazepam 1.0 mg TID prn for 7 days**

1. Counseling for test anxiety
2. Lorazepam 1.0 mg TID prn for 7 days
3. Long term agent (e.g. SSRI)
4. Benzodiazepine plus long term agent
5. Counseling plus long term agent

Is there anything else Jill should do before providing Kevin with a prescription?

- Jill should contact the pharmacy where he received his last prescription to confirm the medication, dose, duration and instructions.
- If Jill has access to a Drug Information System and/or Prescription Monitoring Program, she should check with those resources to confirm the script
- Jill could consider creating a treating agreement with Kevin (would not be wrong but not indicated for short duration therapy).

Jill: OK Kevin, here's the plan I propose. I will give you a 7-day supply of the same medication you used last time. It's called Lorazepam. You can take it up to 3 times per day if you really feel anxious.

Jill: I'm glad I could help Kevin. If anything changes before your exams are over or you need to talk about anything else, please don't hesitate to call me and we can talk some more.



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What other education should Jill provide Kevin about his prescription?

- Jill should educate about following the script as ordered, taking no more than prescribed, side effects (e.g. drowsiness, etc.), avoiding alcohol and other drugs and avoid sharing pills with anyone else.

Jill: Do you have any other questions?

Kevin: No...thanks! This will really help.

Jill: I'd like to see you again after your exams are over to talk about the anxiety symptoms you are having. There are other ways to help manage the symptoms so that you may not need medication at all and that may be helpful if you get anxious at other times. Would you be interested in coming back to talk about this some more?

Kevin: I'll think about it. I'd sure like to find a way not to feel like this every time I have to take a test. Thanks for your help!

Learning Outcome

By the end of this learning outcome, the participant should be able to:

1. Recognize misuse of prescription controlled substances through history, physical and diagnostic tests in a patient with symptoms of anxiety.
2. Manage safe prescribing of benzodiazepines.
3. Recognize risks of concurrent benzodiazepine and alcohol use.
4. Recognize the impact of prescribed control drug substances on patient safety.

Resources

- [GAD-2 or GAD-2 pdf](#)
- [GAD-7](#)
- [CAGE-AID questionnaire](#)
- [Bhatt and colleagues \(2016\)](#)

Credits: <http://nperesource.casn.ca/>



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