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Psychology course

Case #4: Generalized Anxiety Disorder

Background:

[Child's name] is an 8-year old Caucasian male. He lives with his mother, father, and younger sister (age 6). He came into the clinic because his symptoms of being a "worrywart" have become more severe over the last six months.

Axis I: 300.02 Generalized Anxiety Disorder
Axis II: Deferred
Axis III: Deferred
Axis IV: Classmates have started refusing to play with him, beloved hamster recently died
Axis V: 58
"Rule-out's:" Obsessive-Compulsive Disorder, Major Depressive Disorder

Diagnosis:

Axis I: 300.02 Generalized Anxiety Disorder (GAD)

[Child's name] meets criteria for GAD. The primary symptom that presents for this psychological disorder is chronic and excessive worry or anxiety (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000). This factor certainly applies to [Child's name] who explains that he can spend at least 3 hours and sometimes the entire day in "worry land," a term that he coined himself to explain the time when he thinks about little events that occur in everyday life and worries about what will happen in the future. Because he seems to worry about extremely minor life events, his diagnosis can be confidently classified as GAD as opposed to other anxiety disorders (Albano, Chorpita, & Barlow, 2003).

The specific diagnostic criteria that must be met in order to diagnose GAD are as follows:

1. "Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance)" (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000).

The child and his mother reported that the amount and severity of his worrying had increased over the last 6 months. [Child's name] reported that he spends at least 3 hours per day in his "worry land." He described worrying about falling down and hurting himself (the way his sister did on the playground), worrying about the future, worrying that the kids at school won't like him, and worrying that in the future he will become a hermit and not talk to anyone.

2. "The person finds it difficult to control the worry" (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000).

   [Child's name] claims that he often gets stuck in these states of constant worry where he is not able to control thinking about future doom.

3. "The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months). **Note:** Only one item is required in children" (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000).

   An interesting aspect for this category is that for children, only one item from this list is required to meet criteria. In adults, three or more of the symptoms must be present (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000). [Child's name] reported (or was observed exhibiting) 5/6 of these behaviors, displaying the severity of his GAD.

   (1) restlessness or feeling keyed up or on edge (present in [Child's name])

   At the interview, he presented himself as nervous, jittery and on edge

   (2) being easily fatigued (present in [Child's name])

   [Child's name] described feeling worn out very easily and says that he is not able to play sports for as long as he used to be able to.

(3) difficulty concentrating or mind going blank (present in [Child's name])

[Child's name]'s teacher reported that [Child's name] is unable to concentrate during school and that his grades have fallen which represents a drastic change from the beginning of the school year.

(4) irritability (not currently present in [Child's name])

(5) muscle tension (present in [Child's name])

After coming out of his "worry land" states of anxiety, [Child's name] describes having a sore neck and back, similar to having just lifted many weights, fulfilling the fifth symptom.

(6) sleep difficulties (present in [Child's name])

[Child's name] has had difficulty with his sleep for the course of the last year. He reports waking up in the middle of the night and not being able to return to a sleep state. He says that he wakes up for at least an hour in the middle of the night every night, but if there is something especially stressful or important happening the next day, he will not be able to sleep at all the night before.

(4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000)

4. "The focus of the anxiety and worry is not confined to features of an Axis I disorder…" (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000).

   The complaints that [Child's name] is expressing do not meet criteria for any other Axis I disorders.

5. "The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning" (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000).

[Child's name]'s episodes of severe worry (as opposed to his almost-constant low levels of worry) seem to cause significant distress to him. When his sister broke her arm on the playground, he became extremely upset and involved with the situation. He constantly asked questions about the incident, about how much pain his sister was in, and worried about falling himself with more extreme results (ending in a body cast, etc.).

His grades have also severely decreased since the change in severity, occurring about 6 months ago. [Child's name] has not been completing assignments and has difficulties on in-class tests. His teacher reports that instead of paying attention in class, [Child's name] tends to stare off into space and nervously tap his desk.

Finally, [Child's name] is experiencing trouble with his classmates who have begun to refuse to play with him. They claim that he only wants to play games that involve what would occur if a catastrophe happened.

6. "The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a Mood Disorder, a Psychotic Disorder, or a Pervasive Developmental Disorder" (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000).

   [Child's name] and his family did not report the use of any substances nor does he possess a general medical condition or a pre-existing psychological disorder.

Axis IV: Classmates have begun to refuse to play with him, hamster recently died

[Child's name] has begun to have some social difficulties because his classmates have refused to play with him. [Child's name]'s hamster recently died which was extremely upsetting to him.

Axis V: 58, [Child's name]'s symptoms are characteristically moderate. Because he finds himself worrying so often and because his condition has affected him physically, socially and academically, yet he is still attending school and still has friends, his Global Assessment of Functioning is moderate.

The "Rule Out" diagnoses that [Child's name] was close to meeting criteria were Obsessive-Compulsive Disorder (OCD) and Major Depressive Disorder (MDD). It is important to note that [Child's name]'s mother reported having Obsessive-Compulsive Disorder herself and that [Child's name]'s paternal grandmother had depression. Because of this family history, [Child's name] may have a genetic predisposition to these disorders or some other form of anxiety or mood disorder (Albano et. al., 2003).

For OCD, [Child's name] met many criteria for having obsessions. He does have recurrent thoughts that are intrusive and that cause marked distress (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000), he recognizes that they are a part of his own mind (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000), and they cause marked distress and are time consuming (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000). He does not present any compulsions. At this time, because his obsessive thoughts seem to be worries about real-life problems and because [Child's name] does not attempt to use another thought or action to ignore the intrusive thoughts, he does not meet criteria for OCD.

For MDD, [Child's name] met many criteria however, did not meet the primary requirement for having depression: having a depressed mood for most of day, nearly every day or diminished interest/pleasure in all or almost all activities (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000). The criterions that [Child's name] does meet in regard

to MDD are: insomnia, restlessness, fatigue/loss of energy and diminished ability to think or concentrate (4th ed., text rev.; DSM–IV–TR; American Psychiatric Association, 2000). [Child's name] would need to be administered the Children's Depression Inventory which measures depressive symptoms in children and adolescents (Smucker, W. Craighead, L. Craighead & Green, 1986). It is also critical to point out that early childhood anxiety disorders has been found to predict MDD in adulthood, therefore careful monitoring of [Child's name] for MDD symptoms is important (Moffitt, T.E., Harrington, H., Caspi, A., Kim-Cohen, J., Goldberg, D., Gregory, A.M., Poulton, R., 2007).

Epidemiology and Etiology:

GAD is diagnosed in approximately .05% of all children (Weisburg, R., 2009). This is the lowest child prevalence rate of all anxiety disorders (Weisburg, R., 2009). It is equally common in both boys and girls (Albano et. al., 2003). It has a lifetime prevalence of 5.1% (van der Heiden, Melchior, Muris, Bouwmeester, Bos, van der Molen, 2010).

[Child's name] may have been genetically predisposed to an anxiety disorder because his mother has been diagnosed with Obsessive-Compulsive Disorder, a different anxiety disorder (Merikangas, Avenevoli, Dierker, & Grillon, 1999). Children from parents that suffer from anxiety disorders are about five times more likely to experience one themselves, though not necessarily the same specific one (Beidel & Turner, 1997). Instead of genetically passing down the exact same disorder, families may perpetuate a general susceptibility for the same type of disorder, in this case anxiety disorders (Capps, Sigman, Sena, & Henker, 1996).

It is also possible that [Child's name] has a brain abnormality that could be contributing to his GAD. Brain studies of children with GAD have shown abnormally large amygdalae and superior temporal gyrus, regions that are associated with social information processing and fear

conditioning (De Bellis, Keshavan, Frustaci, et. al., 2002). This abnormality could be the cause of [Child's name]'s constant fear and worry and also his abnormal social interactions with peers. Another possible biological abnormality in [Child's name], and many people diagnosed with Generalized Anxiety Disorder, may be a decrease in GABA (gamma-amniobutyric acid) (Rowa & Antony, 2008). This neurotransmitter acts to inhibit neuron excitability in the brain (Rowa & Antony, 2008). People with a GABA deficiency may have higher levels of fear and arousal because of the lack of neural inhibition (Rowa & Antony, 2008).

Temperamental traits, specifically neuroticism, have been shown to contribute to the attribution of anxiety disorders (Beesdo, 2009; van der Heiden et. al, 2010). [Child's name]'s mother admitted that her son has always been something of a "worry wart," a common term that could possibly describe the trait neuroticism, characterized by emotional instability in multiple dimensions (de Pauw & Mervielde, 2010). [Child's name]'s temperament may have predisposed him to developing Generalized Anxiety Disorder.

[Child's name] does not seem to be experiencing any family problems that could be contributing to his symptoms. He also did not have any academic problems before the increase in severity of his symptoms. It can be assumed that academic problems were not the source of his increase in worrying.

Proposed Treatment Plan:

Cognitive Behavioral Therapy (CBT) is the most common treatment for Generalized Anxiety Disorder (Borkovec & Costello, 1993). This therapy teaches children to monitor their own thinking patterns and change the maladaptive ones that are causing their excessive worries (Mash & Wolfe, 2010). It helps to make the child aware of their own thought processes and allows the power to change them (Mash & Wolfe, 2010). The specific goals that this therapy

would center around would be to decrease negative thinking, increase problem solving, and allow the child to develop ways to cope (Mash & Wolfe, 2010).

Applied relaxation is a different technique that attempts to treat GAD. Though not as common, Borkovec & Costello (1993), showed that applied relaxation was just as effective as CBT for the treatment of GAD. Applied relaxation teaches the client how to recognize when a thought spiral is coming on and to intervene early with a variety of relaxation responses (Borkovec & Costello, 1993). The theory is that if the GAD patient is able to relax instead of increasing their worry, their anxiety will dissipate (Borkovec & Costello, 1993).

For children with anxious parents, using family therapy to address the child's anxious behavior seems to produce longer lasting and more positive effects (Creswell & Cartwright-Hatton, 2007; Suveg et. al., 2006). With his family, the child with Generalized Anxiety Disorder works on skills for interactions with others, managing emotions, communication skills and problem solving skills (Barrett, Dadds & Rapee, 1996).

Medication would be a last resort in the case of someone with GAD (Mash & Wolfe, 2010). Selective Serotonin Re-uptake Inhibitors (SSRIs) are used to treat all anxiety disorders but there have been a lack of controlled studies and the possible side effects can be severe (Mash & Wolfe, 2010).

A type of treatment that is just in the beginning stages but is worth mentioning is an Attention Modification Program. Research has found that individuals with GAD tend to pay more attention to anxiety-causing stimuli than neutral stimuli if the two are competing (Amir, Beard, Burns, Bomyea, 2009). By teaching people with GAD how to control their attention and focus it elsewhere, the symptoms of GAD have lessened in most people with GAD (Amir et. al,

2009). The research on this treatment is still on-going and has not yet been attempted with children participants due to the extremely low rates of child GAD (Amir et. al., 2009).

Because CBT has been shown to be the most common treatment for GAD (Borkovec & Costello, 1993), I would use this method to treat [Child's name] as my first choice. However if CBT does not seem to be working, I would incorporate applied relaxation into his therapy as well because relaxation techniques have also been shown to be effective treatment for GAD(Borkovec & Costello, 1993). [Child's name] has a very good relationship with his family and I can assume that they will do quite a lot to help relieve their son of as many symptoms as possible. I recommend family therapy as well, in order to help [Child's name] function in the family unit without his anxious symptoms. This is also important because his mother has an anxiety disorder and administering therapy in a family context has been shown to be extremely helpful for children of anxious parents (Creswell & Cartwright-Hatton, 2007; Suveg et. al., 2006). If none of these treatment plans seemed to be working to help [Child's name]'s GAD symptoms, if they become more severe, or if he is diagnosed with a comorbid disorder, I would then be willing to put him on a medication, most likely an SSRI (Mash & Wolfe, 2010). I do not feel comfortable recommending an Attention Modification Program for [Child's name] because of its lack of child participants and because it is still in the beginning stages (Amir, et. al., 2009).

References

Albano, A.M., Chorpita, B. F., & Barlow, D.H. (2003). Childhood anxiety disorders. In E.J. Mash & R.A. Barkley (Eds.), *Child psychopathology* (2nd ed., pp. 279-329). New York: Guilford Press.

American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed., text rev.). doi:10.1176/appi.books.9780890423349.

Amir, N., Beard, C., Burns, M., Bomyea, J. (2009). Attention Modification Program in Individuals With Generalized Anxiety Disorder. *Journal of Abnormal Psychology, 118*, 28-33.

Barrett, P.M., Rapee, R. M., Dadds, M.M., & Ryan, S.M.(1996). Family enhancement of cognitive style in anxious and aggressive children. *Journal of Abnormal Child Psychology, 24,* 187-203.

Beesdo, K. (2009). Anxiety and Anxiety Disorders in Children and Adolescents: Developmental Issues and Implications for DSM-V. *The Psychiatric clinics of North America,* 32(3), 483-524.doi:10.1016/j.psc.2009.06.002

Beidel, D.C., & Turner, S.M. (1997). At risk for anxiety: I. Psychopathology in the offspring of anxious parents. *Journal of the American Academy of Child & Adolescent Psychiatry, 36,* 918-924.

Borkovec, T. D., & Costello, E. (1993). Efficacy of applied relaxation and cognitive-behavioral therapy in the treatment of generalized anxiety disorder. *Journal Of Consulting And Clinical Psychology*, *61*(4), 611-619. doi:10.1037/0022-006X.61.4.611

Capps, L., Sigman, M., Sena, R., & Henker, B. (1996). Fear, anxiety, and perceived control in children of agoraphobic parents. *Journal of Child Psychology & Psychiatry, 37*, 445-452.

Creswell, C., & Cartwright-Hatton, S. (2007). Family treatment of child anxiety: Outcomes, limitations and future directions. *Clinical Child and Family Psychology Review,10*, 232-252.

De Bellis, M.D., Keshavan, M.S., Frustaci, K., Shifflett, H., Iyengar, S., Beers, S.R., et. al. (2002). Superior temporal gyrus volumes in maltreated children and adolescents with PTSD. *Biological Psychiatry, 51*, 544-552.

De Pauw, S., & Mervielde, I. (2010). Temperament, Personality and Developmental Psychopathology: A Review Based on the Conceptual Dimensions Underlying Childhood Traits. *Child Psychiatry Human Development, 41*, 313-329. doi: 10.1007/s10578-0090171-8.

Mash, E.J., & Wolfe, D.A. (2010). *Abnormal Child Psychology.* Wadsworth.

Merikangas, K.R., Avenevoli, S., Dierker, L., & Grillon, C. (1999). Vulnerability factors among children at risk for anxiety disorders. *Biological Psychiatry, 46,* 1523-1535.

Moffitt, T.E., Harrington, H., Caspi, A., Kim-Cohen, J., Goldberg, D., Gregory, A.M., Poulton, R. (2007). *Arch Gen Psychiatry,64(6),* 651-660.

Rowa, K. & Antony, M. (2008). Generalized Anxiety Disorder. In *Psychopathology: History, Diagnosis, and Empirical Foundations* (3). Retrieved from http://books.google.com/books?hl=en&lr=&id=xZYeZbqBt2cC&oi=fnd&pg=PA78&dq=generalized+anxiety+disorder&ots=1i6ENCNPKM&sig=at9x9r8bYogFC8FAEDUPHFDn5h0#v=onepage&q=generalized%20anxiety%20disorder&f=false

Smucker, M.R., Craighead, W.E., Craighead, L.W., Green, B.J. (1986). Normative and reliability data for the children's depression inventory. *Journal of Abnormal Child Psychology, 14,* 25-39. doi: 10.1007/BF00917219

Suveg, C., Roblek, T.L., Robin, J., Krainm A., Aschenbrand, S., & Ginsburg, G.S. (2006). Parental involvement when conducting cognitive-behavioral therapy for children with anxiety disorders. *Journal of Cognitive Psychotherapy, 20*, 287-299.

van der Heiden, C., Melchior, K., Muris, P., Bouwmeester, S., Bos, A., van der Molen, H.T. (2010). A hierarchical model for the relationships between general and specific vulnerability factors and symptom levels of generalized anxiety disorder, *Journal of Anxiety Disorders*, *24(2),* 284-289. doi:10.1016/j.janxdis.2009.12.005.

Weisburg, R. (2009). Overview of Generalized Anxiety Disorder: Epidemiology, Presentation, and Course. *Journal of Clinical Psychiatry, 70,* 4-9.