CPD Article

The patient with excessive worry

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Abstract

Worry is a normal response to uncertainty. Education, empathetic support, reassurance, and passage of time usually ameliorate ordinary worries. However, these common-sense strategies for dealing with transient worries often prove ineffective for patients with excessive worry, many of whom meet the criteria for disorders in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. Evidence-based treatments for such disorders can assist family physicians in management of persistent worry as a self-perpetuating habit across diagnostic categories. Antidepressants and cognitive behavioural therapy are effective treatments for various disorders characterised by excessive worry. Cognitive behavioural strategies that may be adapted to primary care contacts include education about the worry process, repeated challenge of cognitive distortions and beliefs that underpin worry, behavioural exposure assignments (e.g., scheduled worry periods, worry journals), and learning mindfulness meditation.

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Introduction

Worry is an effective short-term response to uncertainty that can become self-perpetuating with adverse long-term consequences. Worry reduces subjective uncertainty, contributes to a sense of vigilance and preparedness, dampens autonomic arousal, and fuels the belief that uncertain events and overall risk can be controlled.[1] When such relief is coupled with the likely non-occurrence of low-probability feared events, it can powerfully reinforce the worry response, shaping beliefs that worry is adaptive and somehow pre-empts bad things from happening. Worry also is a form of emotional suppression and cognitive avoidance that becomes self-perpetuating, in part because it blocks other emotions such as fear or anger. The patient with excessive worry often displays a constellation of maladaptive beliefs and habits involving worry *(Table 1)*.

Many patients with excessive worry overvalue, but also fear, their propensity to worry, often with concern that so much worry will harm their health. Although they intentionally indulge in worry at times, their distress about worrying prompts repetitive, unsuccessful efforts to control it. These efforts to suppress intrusive thoughts are usually ineffective and paradoxically may magnify worry and anxiety.[2]

The environmental, neuro-anatomic, neurophysiologic, and genetic components of excessive worry are still being defined.[3] There is consensus that certain areas of the brain (amygdala, prefrontal cortex, cingulate cortex, caudate nucleus, ventral hippocampus) and neurotransmitters (serotonin, noradrenaline, corticotropin-releasing hormone, cholecystokinin, gamma-amino butyric acid) underpin anxiety arousal and worry. The various clinical presentations of worry may reflect the relative activation or availability of these structures and neuro-transmitters, although the issue of cause versus consequence has not been resolved.

SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	*Evidence rating*	*References*
Antidepressants (in particular, escitalopram [Cipralex®], paroxetine [Paxil®], sertraline [Zoloft®] and venlafaxine [Effexor®]) are effective treatments for serious worry-prone disorders (e.g., GAD, panic disorder, SAD, OCD, PTSD), even in the absence of major depression.	A	9, 29-33
Psychological treatments, especially cognitive behavioural therapy tailored to the specific diagnosis, are effective for worry-prone disorders (e.g., GAD, panic disorder, SAD, OCD, PTSD, major depressive disorder/dysthymia, hypochondriasis).	A	10, 13, 24-28
Selective serotonin reuptake inhibitors can be considered for treatment of hypochondriasis, although evidence from controlled trials is lacking.	C	17, 18

GAD = generalised anxiety disorder; SAD = social anxiety disorder; OCD = obsessive-compulsive disorder; PTSD = post-traumatic stress disorder.
A = consistent, good-quality, patient-oriented evidence; B = inconsistent or limited-quality, patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, see page 956 or http://www.aafp.org/afpsort.xml.

Clinical Presentation

Patients are unlikely to complain of excessive worry unless asked. They may present with another problem (e.g., insomnia) or display vague physical symptoms or a somatic syndrome (e.g., irritable bowel syndrome).

Persistent worry most commonly is evident in patients with certain disorders and similar sub-threshold presentations *(Table II)*. Co-morbidity

Table I: Cognitive distortions characteristic of patients with excessive worry

Intolerance for uncertainty:
"If I think about this enough, I should feel a sense of certainty."
Intolerance for discomfort:
"If I can just think this through, I won't have to feel this way."
Inflated sense of culpability:
"If bad things happen, it is my fault."
Distorted risk assessments/emotional reasoning:
"If it feels likely, it is likely. If it feels dangerous, it is dangerous."
Perfectionism about mistakes:
"Mistakes mean I screwed up because I was not in control."
Pessimism/presumed incapability:
"Bad things will happen to me and I will not be able to deal with it."
Misconstrued virtue:
"Worry shows how deeply I care about my children."
Overvaluation of the thought process:
"Because I have a thought, it is important and I must give it my full attention."
Implicit magical beliefs about worry:
"Worry prevents bad things from happening. It keeps me from being blindsided. It keeps loved ones safer."
Worry about worrying too much:
"I am out of control. I am making myself sick. I have got to stop worrying."

Table II: Features of worry in patients with common psychiatric disorders

Generalised anxiety disorder Nearly daily, marked worry with variable content Often focuses on: daily hassles; interpersonal conflicts; self-doubts; routine health/safety concerns; potential catastrophes. Worry as a way of life; worry seems irresistible. **Hypochondriasis or health anxiety** Interpret benign bodily signs as potential illness Preoccupying worry about getting a serious illness (e.g., cancer, AIDS) Some patients overuse physicians, medical textbooks, Web sites, or self-checking for reassurance; some patients underuse physicians to avoid potential bad news. Significant overlap with obsessive-compulsive disorder, panic disorder, and depression. **Major depressive disorder/dysthymic disorder** Content of worry often focuses on guilt, self-reproach, and self-perceived incompetence or badness. Worry often takes the form of dysphoric brooding or rumination. Self-critical worry about the past; helpless worry about the present; pessimistic worry about the future	**Obsessive-compulsive disorder** Beyond "ordinary" worries, obsessions often occur as intrusive and frightening thoughts that raise doubt about acting on inappropriate or reprehensible ideas. Obsessive doubt about possible contamination or disease may dominate worries. Compulsive reassurance-seeking, checking, or sanitizing may momentarily relieve anxiety at the cost of perpetuating the disorder. **Panic disorder** Fear of having a panic attack Worry that the symptoms of autonomic arousal or panic attacks are dangerous and must be avoided Thoughts such as: "What if I pass out, go crazy, have a heart attack, or lose control of myself?" **Post-traumatic stress disorder** After trauma, all dangers seem more likely and all worries seem more plausible. Hyperarousal and hypervigilance often fuel the worry process and give it credence. **Social phobia/social anxiety** Worry about bungled social performance, interpersonal scrutiny, and embarrassment

AIDS = acquired immunodeficiency syndrome.

and overlap among categories often make it difficult to distinguish among disorders, especially given individual variations over time. Some patients display a single disorder and some will meet criteria for multiple diagnoses, whereas others present with various symptoms or diagnoses over a period of years, all with a common theme of excessive worry. Prevalence figures suggest that generalised anxiety disorder and hypochondriasis, plus subthreshold variations of these disorders, most often characterise patients with excessive worry who are encountered in primary care.

Generalised Anxiety Disorder

Generalised anxiety disorder (GAD) was once a default category for anxious patients who did not meet the criteria for another more specific anxiety disorder. The *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed., (DSM-IV) focuses on excessive worry and trouble controlling worry more than the somatic manifestations of anxiety.

The lifetime prevalence of GAD in the general population is approximately 5 percent; however, there is an 8 percent cross-sectional prevalence rate among primary care patients, indicating that this is the anxiety disorder most often seen by family physicians.[4] Furthermore, there are indications that symptoms below the diagnostic threshold are just as impairing.[5]

In one sample, 87 percent of primary care patients with GAD did not present with a primary symptom of anxiety; most had non-specific somatic complaints (e.g., insomnia, head or muscle aches, fatigue, gastrointestinal symptoms).[6] Although a high rate of co-morbidity with depression often is reported, there also is a high proportion of pure GAD in primary care that is poorly recognised and rarely treated appropriately.[6]

Approximately 90 percent of patients with GAD answer affirmatively to the question, "During the past four weeks, have you been bothered by feeling worried, tense, or anxious most of the time?"[7] More thorough assessment or treatment monitoring can be implemented using the Penn State Worry Questionnaire *(Table III)*.[8]

Escitalopram (Cipralex®), paroxetine (Paxil®), sertraline (Zoloft®), and venlafaxine (Effexor®) are indicated by the U.S. Food and Drug Administration (FDA) for treatment of GAD. According to a Cochrane Database review,[9] imipramine (Tofranil®), paroxetine, and venlafaxine are the best-evaluated antidepressants that are effective for GAD.[9] In clinical practice, the selective serotonin reuptake inhibitors (SSRIs) and venlafaxine have become first-line treatment.[10]

The benzodiazepines' relatively poor effectiveness for treatment of cognitive anxiety (i.e., worry, as opposed to somatic anxiety symptoms), potential for tolerance, abuse potential, and adverse side effects (e.g., sedation, impact on driving safety) have removed them from first-line consideration for long-term treatment of GAD.[10] Although buspirone (Buspar®) is indicated by the FDA for treatment in GAD and has none

Table III: Penn State Worry Questionnaire

Enter the number that best describes how typical or characteristic each item is of you:				
1	2	3	4	5
Not at all typical		Somewhat typical		Very typical

Item	*Score*
1. If I don't have enough time to do everything, I don't worry about it.	
2. My worries overwhelm me.	
3. I don't tend to worry about things.	
4. Many situations make me worry.	
5. I know I should not worry about things, but I just cannot help it.	
6. When I am under pressure I worry a lot.	
7. I am always worrying about something.	
8. I find it easy to dismiss worrisome thoughts.	
9. As soon as I finish one task, I start to worry about everything else I have to do.	
10. I never worry about anything.	
11. When there is nothing more I can do about a concern, I do not worry about it any more.	
12. I have been a worrier all my life.	
13. I notice that I have been worrying about things.	
14. Once I start worrying, I cannot stop.	
15. I worry all the time.	
16. I worry about projects until they are all done.	
Total Score:	
Scoring: Reverse score items 1, 3, 8, 10, and 11, then sum all 16 items. Possible scores range from 16 to 80. Means for groups with generalized anxiety disorder range from 60 to 68. Adapted with permission from Meyer TJ, Miller ML, Metzger RL, Borkovec TD. Development and validation of the Penn State Worry Questionnaire. Behav Res Ther 1990;28:488.	

of the adverse side effects of benzodiazepines, it is not a well-established monotherapy for GAD.[10]

Relaxation training can dampen muscle tension and bodily arousal and has demonstrated effectiveness comparable with cognitive treatment for GAD in some studies.[7] Because it does not specifically target the excessive worry that is the hallmark of GAD, relaxation training proves inadequate for most inveterate worriers.[1] "Thought-stopping" techniques also have fallen from favour because deliberate effort to suppress worry often promotes it.

Recent controlled trials[11] of worry-focused cognitive behavioural therapy (CBT) have demonstrated effectiveness for GAD. CBT typically includes a combination of education about worry; self-recording of worries; relaxation training; imagined or taped exposure to worries paired with coping strategies; focus on present-moment experience; use of designated worry periods; and challenging the worrier's distorted risk assessments, intolerance for uncertainty, and overvaluation of worry.[12]

One intriguing trend is the integration of mindfulness meditation with CBT for treating GAD.[2] This learned meditation technique teaches participants to focus on the present moment and accept their thoughts in a non-judgmental manner. It may be ideally suited to patients with GAD because it offers an alternative to ineffective suppression; it reframes the primarily verbally mediated covert monologues of worry as "just thinking"; and it facilitates a focus on the present moment rather than on compelling, future-oriented worries. Although preliminary outcome data are encouraging, adequate trials are still pending.[2]

Hypochondriasis and Health Anxiety

Hypochondriasis is characterised by a persistently distressing preoccupation with fears or thoughts that one has a serious illness. Such worries often prompt the seeking of excessive reassurance from physicians, medical textbooks, and Web sites, or repeated self-inspection and symptom monitoring. Patients selectively attend to benign bodily sensations and to health information that confirms their suspicion while ignoring disconfirming evidence.[13] Hypochondriasis clearly overlaps with obsessive-compulsive disorder, panic disorder, and depression, but it is distinguishable from the repetitive physical complaints of somatisation disorder.[14]

Hypochondriasis is at the pathologic end of the broader spectrum of "illness worry" or "health anxiety." Hypochondriasis is rare in the general population (less than 1 percent occurrence) but is much more common (as much as 5 percent) among patients in the primary care setting.[13] More broadly defined, "health anxiety" is much more prevalent (6 percent) in the general population[15] and associated with greater consumption of health care resources in primary care.[16]

Little is known about the pharmacologic treatment of primary hypochondriasis. SSRIs are promising, but randomised controlled trials (RCTs) are awaited. Small, open trials of paroxetine[17] and fluvoxamine (Luvox®)[18] suggest that many patients with marked health anxiety may benefit. Evidence is accumulating that the obsessional cluster of somatoform disorders (e.g., hypochondriasis and body dysmorphic disorder) often responds to treatment with SSRIs.[19]

In a study of patients with hypochondriasis, psychological treatment rather than medication was perceived to be first-line treatment by 74 percent of patients and as the only acceptable treatment by 48 percent of patients.[20] An RCT[13] demonstrated the effectiveness of a scripted, six-session version of CBT specialised for patients with hypochondriasis in primary care. The CBT package specifically targeted amplification of benign symptoms, faulty symptom attributions, errant beliefs about health and disease, maladaptive illness behaviours, and selective attention strategies. The effectiveness of this treatment for patients with hypochondriasis corroborated the results of earlier RCTs.[21-23]

Other Disorders Characterised by Excessive Worry

Diagnosis-tailored, cognitive behavioural treatments have demonstrated

effectiveness for panic disorder,[24] social phobia (social anxiety),[25] post-traumatic stress disorder,[26] obsessive-compulsive disorder,[27] and depression.[28] SSRIs and other antidepressants have demonstrated effectiveness for the same disorders.[29-33] However, combining CBT and medications does not necessarily result in better outcomes among grouped data.[34] Although the evidence base for combined treatments is lacking, physicians may find this approach imperative for individual patients.

Table IV: Treatments for patients with excessive worry disorders

Disorder	*Psychopharmacologic treatment**	*Psychological treatment*
Generalised anxiety disorder	SSRIs, venlafaxine (Effexor®), imipramine (Tofranil®)[9] FDA indicated: paroxetine (Paxil®), sertraline (Zoloft®), venlafaxine (Effexor®), escitalopram (Cipralex®), buspirone (Buspar®)	CBT[10-12]
Panic disorder	SSRIs[29] FDA indicated: fluoxetine (Prozac®), paroxetine, sertraline, venlafaxine, clonazepam (Rivotril®), alprazolam (Xanor®)	CBT[24]
Hypochondriasis	SSRIs[17-19] FDA indicated: none	CBT[13,21-23] Exposure and response prevention†[13,21-23]
Social anxiety disorder	SSRIs, venlafaxine[30] FDA indicated: paroxetine, sertraline, venlafaxine	CBT[25]
Post-traumatic stress disorder	SSRIs[31] FDA indicated: paroxetine, sertraline	CBT[26]
Major depressive disorder	All antidepressants[33] FDA indicated: SSRIs, venlafaxine, mirtazapine (Remeron®), bupropion (Wellbutrin®), duloxetine (Cymbalta®), TCAs, MAOIs	CBT[28] Interpersonal psychotherapy [28]
Obsessive-compulsive disorder	SSRIs[32] FDA indicated: fluoxetine, paroxetine, sertraline, fluvoxamine (Luvox®), clomipramine (Anafranil®)	CBT[27] Exposure and response prevention†[27]

SSRIs = selective serotonin reuptake inhibitors; FDA = U.S. Food and Drug Administration; CBT = cognitive behavioral therapy; TCA = tricyclic antidepressant; MAOI = monoamine oxidase inhibitor.
**-First-line treatments, as recommended in the text, are listed first. FDA-indicated medications for each disorder are listed second.*
†-Exposure and response prevention involves exposure to obsessional thought content coupled with delaying or blocking compulsive behaviors or thoughts.
Information from references 9 through 13, 17 through 19, and 21 through 33.

Treatment of Patients with Excessive Worry

The effectiveness of SSRIs and venlafaxine in controlled trials of treatment for the psychiatric disorders most often linked with excessive worry suggests that these medications should be first-line pharmacologic treatments. The effectiveness of CBT for these disorders suggests that such techniques will be adapted successfully to treat excessive worry across diagnostic categories and in sub-threshold presentations (Table IV [9-13,17-19,21-33]). There is limited evidence that psychosocial treatments for these disorders can be adapted effectively for use by family physicians in brief contacts.[35] Pending such findings, basic knowledge of CBT for these disorders can increase family physicians' understanding and practical management of patients with excessive worry. These patients may benefit from brief, intermittent counselling focusing on: accepting uncertainty; curtailing reassurance-seeking; the futility of thought suppression; irrational risk assessment; behavioral strategies (e.g., worry periods, worry recording); and mindfulness meditation.

Although family physicians usually are not formally trained in CBT, the concepts and techniques can be adapted to brief primary care counselling and supplemented with readings and behavioural assignments. Table V summarises potential teaching points and practical strategies derived from CBT for use in brief, primary care education and counselling of the patient with excessive worry. These points can be chosen and adapted for adults with various educational levels or for children. Any brief primary care contact may focus on a single counselling point, worry-management strategy, or assignment.

Clinically, some patients will respond quickly (in two to four weeks) to a first trial of an SSRI or venlafaxine. Others may respond minimally across numerous and lengthy medication trials. Some patients respond so well to medication that they are not interested in other treatments; others are adamant about not taking medication and will benefit from CBT alone; and still others seem unable to benefit from counselling until their excessive worry is attenuated with medication. Medication for most patients with excessive worry should be started at one half (or less) of the usual starting dose to minimise side effects that can augment worry and pre-empt adherence. *Table 6* lists books and Web sites that may be helpful for patients with excessive worry. The patient with excessive worry is unlikely to experience sudden insight and abrupt improvement in response to even the most masterful delivery of these ideas and strategies. Because improvement typically occurs in gradual and sometimes erratic increments, these techniques can be well suited to longitudinal family practice. Patients who do not respond to these initial efforts in primary care can be referred to subspecialists for CBT with or without psychopharmacologic consultation.

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Table V: Education and cognitive behavioural strategies for patients with excessive worry

Patient characteristic	Teaching point	Cognitive behavioural strategy
Worry as a warning	Worry rarely saves us from anything. Most things we worry about are unlikely events. The bad things that happen to us are rarely anticipated through worry and rarely allow us any control. A compelling worry is still just a thought that will pass.	Challenge your distorted risk assessments: "Am I overestimating the risk?" "Yes, it feels likely, but how likely is it really?" Remind yourself about the transient nature of worries: "Will this even matter to me next year, or even next week?"
Reassurance seeking	Frequently seeking reassurance (e.g., searching the Internet, checking your body, repeated consultation) often stimulates more worry and doubt. The brief relief provided by reassurance only perpetuates the worry cycle.	If you repeatedly seek reassurance from your physician or spouse, encourage them to gradually withhold the reassurance that only perpetuates the problem. Stop "investigating" on the Internet.
Worry suppression	Controlling thoughts is the problem, not the solution. What we resist persists. We think about what we are striving not to think about. Do not try to eliminate your worries. Worried thoughts can be accepted as background noise without being actively engaged.	Learn mindfulness meditation. It is simple, but not easy. Learning to be in the moment, focusing on your breathing and accepting the contents of your thoughts, can gradually ameliorate worry as you become more skilled.
Worries need immediate attention	This only perpetuates the worry cycle. Strive to experience your worries "on the clock" rather than whenever they intrude and upset you. You can learn to have worries at your bidding rather than having them "chase" you all day.	Try using scheduled "worry periods." Give your worries your full attention during 15- to 20-minute periods at set times during the day. Maximize your distress without reassurance. When worries intrude at other times, try to defer them until your next scheduled worry period, perhaps using a written list.
Seeking control and certainty	More worrying will not yield control or certainty. If a worried thought is truly a signal, it should dictate certain actions. If a worry does not call for action (other than reassurance seeking), it is likely to be merely noise, not a signal.	Learn to challenge your futile quest for certainty and control. Notice the many uncertainties and things you cannot control throughout the day, and practice mindful acceptance of each. Remember, certainty is only a feeling, and rarely is a reality.
Bodily tension; anxious arousal	When you give credence to your worried thoughts, your body will respond with tension, anxiety, and somatic symptoms. When you accept worries as "just thinking," your body will respond accordingly.	Relaxation and diaphragmatic breathing skills can buffer bodily tension. Discover what calms you, (e.g., massage, yoga, exercise, music, a hot bath, journaling, prayer, giving your time to someone).
Worries are a personal weakness	Worries are not the litmus test of strength or religious faith. You are wired for a "sticky brain" that makes you prone to worry. However, unhealthy habits perpetuate worry, and healthy habits can diminish worry.	Give a worried thought your full attention for five minutes, but then do something physical or interpersonal instead. Exercise and social contact (while not seeking reassurance) usually make worry much less compelling.

Table VI: Resources for patients with excessive worry*

Generalised anxiety disorder
White JR. Overcoming generalized anxiety disorder: a relaxation, cognitive restructuring and exposure-based protocol for the treatment of GAD. Oakland, Calif: New Harbinger, 1999.
Hypochondriasis/health anxiety
Neuman F. Worried sick? The exaggerated fear of physical illness: how to put physical symptoms into perspective, how to avoid unnecessary worry. Larchmont, N.Y.: Hadrian Press, 2003.
Mindfulness meditation and worry
Kabat-Zinn J. Full catastrophe living: using the wisdom of your body and mind to face stress, pain, and illness. New York: Delta, 1990.
Kabat-Zinn J. Mindfulness meditation: cultivate mindfulness, enrich your life. Niles, Ill: Nightingale-Conant, 2003.
Obsessive thoughts/obsessive-compulsive disorder
Baer L. The imp of the mind: exploring the silent epidemic of obsessive bad thoughts. New York: Plume, 2002.
Grayson J. Freedom from obsessive-compulsive disorder: a personalized recovery program for living with uncertainty. New York: Tarcher, 2003.

Worry in children
Chansky TE. Freeing your child from anxiety: powerful, practical solutions to overcome your child's fears, worries and phobias. New York: Broadway Books, 2004.
Chansky TE. Freeing your child from obsessive-compulsive disorder: a powerful, practical program for parents of children and adolescents. New York: Three Rivers Press, 2000.
Web sites
Anxieties.com
http://www.anxieties.com
Anxiety Disorders Association of America
http://www.ADAA.org
National Institute of Mental Health
http://www.nimh.nih.gov/healthinformation/anxietymenu.cfm
WorryWiseKids.org
http://www.worrywisekids.org

-These resources are recommended by the authors. This list should not be construed as endorsement by American Family Physician or the American Academy of Family Physicians.

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