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Sara is 34 year old, happily married, mother of two young children: a five year old boy and a two year old girl. For the past nine years, she has worked as a primary school teacher; a job she describes as challenging, yet rewarding. Although Sara has always been a bit of a worrier, she noticed that her worrying increased after the birth of her second child. At first, she worried about her children's health, but after a while she began to worry about her relationship with her husband and her performance at work. By the time her daughter reached her first birthday, Sara was worrying about "everything" and feeling tense and irritable almost everyday. Lately, she has begun to have difficulty sleeping and seems to always feel tired. For Sara, what is most difficult to understand is that her personal and professional life are actually going quite well, yet she constantly worries and feels anxious nonetheless...

What is generalized anxiety disorder?

The main feature of generalized anxiety disorder (GAD) is pervasive, excessive and uncontrollable worry and anxiety. Additional features of GAD include symptoms such as restlessness, fatigue, difficulty concentrating, irritability, muscle tension and problems with sleep. GAD is a common disor-

der that has a lifetime prevalence of 5% in the general population. In other words, one person out of 20 will suffer from GAD at some point in his/her life. We also know that GAD has consi-

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derable personal and social costs. For example, individuals with GAD often have difficulty functioning in intimate and social relationships, and they are frequently unemployed.

People with GAD typically worry about numerous events or situations such as relationships with family and friends, performance at work or school, their own health and the health of their loved ones, and financial security. Many individuals with GAD say that they worry all the time: they worry when things are not going well and they worry when things are going well (because that might change). Unfortunately, when people suffer from GAD,

The result of this belief is that they may not mention their constant worrying to their family physician because they are convinced that worrying is "part of their personality."

they typically wait more than 10 years before seeking professional help. One reason for this delay is that they often believe that they are "born worriers" and that nothing can be done to change that. The result of this belief is that they may not mention

their constant worrying to their family physician because they are convinced that worrying is "part of their personality." Thus, it is vital that those who suffer from excessive and uncontrollable worry discuss their condition with their physician.

What are the origins of GAD?

The factors that contribute to the development and maintenance of GAD can be broken down into three types: biological, environmental, and psychological. Biological factors include genetic predisposition and alterations in brain chemicals (neurotransmitters) function. Genetic predisposition plays a modest role in the development of GAD with research suggesting that GAD has a heritability of 15% to 30%. However, genetic predisposition appears to be non-specific in that individuals who are at higher risk of developing GAD are also more likely to develop other anxiety and mood disorders. It may be that genetic predisposition interacts with other factors (see

below) to determine if a given individual will in fact develop GAD and/or another disorder. Alterations in several brain chemicals (neurotransmitter) systems also appear to be involved in GAD, although their exact role has yet to be clearly understood.

Specifically, some studies suggest that children with "insecure" attachments to their parents are at risk of developing GAD later on in their lives.

Research into environmental factors suggests that early interactions between young children and their parents (or caregivers) may play a role in the later development of GAD. Specifically, some studies suggest that children with "insecure" attachments to their parents are at risk of developing GAD later on in their lives. Other studies show that the childhood experiences of adults with GAD are characterized by high levels of enmeshment.

In this context, enmeshed relationships refer to the children attending to the needs of their parents, without necessarily having their own needs met. In other words, the parent-child relationship is marked by role reversal with the child "taking care" of the parent.

Many psychological factors also appear to play a role in the development and maintenance of GAD. One of these factors is intolerance of uncertainty. Research shows that individuals with GAD have difficulty dealing with uncertainty in their everyday lives. For

Research also shows that people with GAD have greater difficulty dealing with uncertainty than individuals with other anxiety disorders and people from the general population.

example, they tend to find uncertainty stressful and upsetting, to believe uncertainty is negative and should be avoided, and to have difficulty functioning in uncertain situations. Research also shows that people with GAD have greater difficulty dealing with uncertainty than individuals with other anxiety disorders and people from the general population. Furthermore, changes in the way people deal with uncertainty predict changes in how much they worry; when people learn to deal more efficiently with uncertainty, they tend to worry less. The general consensus is that psychological factors like intolerance of uncertainty interact with biological and environmental factors in leading to the development and maintenance of GAD.

What are the recommended treatments for GAD?

Treatments for GAD fall primarily into two categories: pharmacological and

psychological. Pharmacological treatments for GAD include selective serotonin reuptake inhibitors (SSRIs), selective serotonin-norepinephrine reuptake inhibitors (SNRIs), tricyclics, buspirone and benzodiazepines. The advantages of

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pharmacological treatments for GAD include their proven short-term efficacy, their widespread availability, and their ease of use (there is no major time commitment involved in taking medication). However, their disadvantages

(which vary for each class of medication) include potential side effects, evidence of relapse upon withdrawal of medication, and a lack of data on long-term (more than one year) efficacy.

Turning to psychological treatments for GAD, it should be noted that all empirically-supported treatments identified by the Canadian and American Psychological Associations consist

Turning to psychological treatments for GAD, it should be noted that all empirically-supported treatments identified by the Canadian and American Psychological Associations consist of cognitive-behaviour therapy (CBT).

of cognitive-behaviour therapy (CBT). Typically, CBT for GAD involves 12 to 16 weekly psychotherapy sessions, with "home exercises" carried out between each session. Treatments involve one or more of the following components: cognitive reevaluation, problem-solving training imaginal exposure, applied relaxation, anxiety management training and learning to deal more efficiently with uncertainty. The advantages of CBT for GAD include their proven short and long-term efficacy (treatment gains are maintained two years after therapy), the absence of treatment side effects, and the empowering nature of treatment (clients generally do not attribute their progress to an "outside agent" such as medication). The disadvantages include the limited availability of the treatment (not many therapists are properly trained in CBT for GAD), the financial costs to the client (in Canada, psychological services are seldom covered by the public health care system), and the time and effort commitment required on the part of the client (attending therapy and doing between-session exercises is more demanding than taking medication).

Summary and conclusions

Generalized anxiety disorder is a relatively common problem that leads to considerable personal and social costs. Although individuals with GAD suffer from excessive and uncontrollable

There are a number of effective pharmacological and psychological treatments for GAD.

worry and anxiety, they often wait many years before seeking help because they mistakenly assume that worry is an immutable part of their personality. This is unfortunate given that there are a number of effective pharmacological and psychological treatments for GAD. In particular, CBT appears to be a good choice for individuals with GAD because it has been shown to lead to long-term change.

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For further information on GAD and its treatment, please consult the following references:

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Useful websites

Anxiety Disorders Association of Canada:	http://www.anxietycanada.ca/
Anxiety Disorders Association of America:	http://www.adaa.org/
Association/Troubles Anxieux du Québec (ATAQ):	http://www.ataq.org/

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