

Anxiety and the Pandemic: Understanding the Autonomic Nervous System and other concepts that can help us cope more effectively

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I Biography: what I do, length of time I have been doing it, populations I work with - depression, anxiety, grief, senior issues, dealing with chronic illness, psychosomatic illnesses, relationship issues, addictions), caveat that I am not an Medical Doctor/apology that I was not able to commit all this info to memory.

II Introductory remarks

Human evolution has prepared us to respond to threats we can see, identify, and respond to. The virus is an invisible perceived threat. There are all sorts of unknown factors; there is no predictability; there are contradictory facts thrown at us continuously; many activities we used to deal with intense emotions, have been removed from our repertoire for coping (bars, movies, social activities, parties): these are all ingredients leading to increased anxiety for many of us.

Given what is happening in the world right now, it is normal to be anxious, but there is a difference between judicious fear leading to appropriate behavior and panic which leads to inability to function. There will be individual differences in reactions to trauma due to previous experiences of trauma, how we were parented, and psychological and physiological predispositions. There is the pandemic as an objective reality as well as the pandemic being a subjective experience unique to each individual human being.

In this presentation, I will discuss ideas to help you cope better with everything going on in the world today. (If you need more information: you can watch this video several times, or use the handouts connected with this talk, or go to the internet and research the topics for which you want more details.)

First I will present certain basic concepts concerning the nervous system:

III (Autonomic nervous system) takes in information, proceeds to process it, and decides how to react) (It regulates key involuntary functions of the body including the heart muscles and the intestines. It is divided into the parasympathetic nervous system and the sympathetic nervous system.

A) The brain is often discussed as having three main divisions:

Reptilian brain: part of brain we are born with, the instinctual brain

limbic system: emotional or feeling part of brain formed by experience

pre-frontal cortex: rational or thinking brain

B) Neuroception: is the process by which we take in info without awareness. The brain evaluates info and then reacts/responds to cues inside body, in environment, between people. When there is a neuroceptive match, the autonomic state will bring the energy necessary to manage the experience. When there is a mismatch, there is either an inability to calm the defense systems in a safe environment or the defense systems are not activated appropriately in a risk environment.

C) There are 3 pathways of response: top level is where a person can connect, communicate and be open to options (social connection). This is a regulating state where safe stories can be created. The middle level is the anxious, alarmed state where we mobilize for fight or flight. We protect ourselves through action. The lowest level is where we become overwhelmed and immobilized by fear.

When there are more cues of safety than danger, we are ready for connection and change and new stories emerge. When more cues of danger are present, survival responses are activated and sometimes we are stuck in an old story where change is not possible.

We need to find ways to access top level of response....where we can connect and feel safe. We do this by communicating with other people by emails, phone, zoom, in person with physical distancing when necessary, through music, art, nature, and spiritual endeavors. At this top level, we are able to create safe stories when there is a choice between outcomes.

When there is a trauma, there is a breakdown of connection to others. This occurs when the pre-frontal cortex shuts down and the limbic system takes over. More and more upset will lead to the use of more survival techniques....fight or flight or immobilization...the middle or lower levels of the brain take over. When there is a trauma, there is uncertainty and a loss of predictability. There is isolation and a sense of safety is gone.

The goal is to not re-experience past traumas. With a history of trauma, we often go back to earlier ways of reacting. The isolation and uncertainty in the world right now are traumatizing to some individuals according to past histories. **To deal with the loss of predictability, we need to create our own schedules, plans, and calendars of events. To avoid immobilization, we need to take action to give ourselves a sense of purpose. We need to focus on skills we have, new goals we can create. To self-regulate, it helps to practice yoga, meditation, and mindfulness. To create a sense of safety, we need to connect through voices, faces, and touch when possible.**

D) Parasympathetic and sympathetic nervous systems: (looking at the three pathways of response in another way) both are part of the autonomic nervous system. The sympathetic nervous system mobilizes us to action...as in fight or flight. It comes into play when we sense danger or a change. It is helpful in dealing with real dangers, as long as we are able to switch it off once the danger passes. The parasympathetic nervous system acts on two different “calming” levels. In the higher level of self-regulation, we are able to connect with ourselves, others, and the environment (called the ventral vagal system). We are able to rationally think things through and come up with viable solutions to problems. In the lowest level, we are immobilized by fear in a freeze state leading to numbness and withdrawal (called the dorsal vagal system).

The pre-frontal cortex regulates the autonomic nervous system. It integrates info from the body and the senses (bottom up processing), through the limbic system which is the emotional engine (top down processing), with other signals from the cortex (memories and judgments). There is integration of experiences from the past and present, to create a narrative of who we are and how our life makes sense.

This integration can create a sense of

E) resilience. The autonomic nervous system is central to resilience because it keeps us in our own window of tolerance where the nervous system is calm yet engaged, centered, and balanced. When something challenging arises, the SNS is activated and we mobilize to meet the new situation. When we are regulated by a social engagement system of the pre-frontal cortex, we turn to people for help or to memories of people who have cared for us. We get the sense that everything will be ok. When we are safely connected with others, in real or virtual time, we stay in our window of tolerance and we mobilize to act skillfully and return to a calm state when appropriate. Conscious regulation of the pre-frontal cortex thru our social engagement system keeps us in our window of tolerance. Ultimate survival is based on neither complacency nor panic, but rather on an inner balance where danger is dealt with and then we are able to return to a calm state.

When we are frightened that events are more than our conscious social engagement system can handle, the SNS is activated without enough regulation. We feel alarm, anxiety, and panic. We need to re-connect with safe others. We need to activate the calming PNS so we can think calmly and skillfully respond. The goal is to move into, through, and out of fear.

F) Cortisol is the hormone released as the brain responds to stress or danger. The antidote to the sympathetic response of fight or flight and the antidote to disconnection and withdrawal is regulation of the ANS through a hormone called **oxytocin**. This is released by touch and hugging and comes from the feeling of being loved, cherished, warm, and safe. Oxytocin re-activates the social engagement system of the pre-frontal cortex which gives us the felt sense of safety, trust, connection, and belonging. Even thinking about feelings of being loved will release this hormone.

G) Idea of neuroplasticity: The brain can change. The more we do something, the easier it becomes to do it again or think in a particular way again. We need to learn new ways of thinking and doing.

We all possess a tendency towards negativity: which was originally good for survival; but not so much anymore. Three positive experiences are needed to counteract one negative one. We need to work at cultivating the positive. Thinking about something positive can be as beneficial as the actual experiencing. It can calm our nervous system and foster feelings of peace and connectedness.

And the more we learn to think in positive ways, the easier it becomes to continue thinking this way.

IV Cognitive behavioral techniques are useful at this time in history: they help us change thoughts in order to change behavior and feelings.

A) We need to recognize cognitive distortions in order to change behavior

Types of inaccurate/erroneous thinking patterns:

using terms such as always, never, (generalizing)

catastrophizing, disqualifying the positive (filtering),

jumping to conclusions, mind reading, black and white thinking

using “should” statements

Changing thinking patterns can go a long way toward solving problems.

Also, if a thought or behavior is causing problems...figure out if you can change it.

B) Mindfulness: paying attention in the present moment, on purpose, without judgment. It is important to use the breath to bring our attention back to the present moment. We learn a way to deal with problems without needing to solve them instantly. Focus on the breath, the body, thoughts, emotions, whatever is present (even unpleasant sensations such as anxiety), all the while taking a nonjudgmental stance. You become aware of the changing nature of all feelings. Mindfulness helps us learn that all thoughts and feelings are temporary.

Paying attention to the present moment takes the focus away from the future and the “what if’s” in our mind. We can usually handle what is going on right in the moment. The future unknown and uncertainties are what become overwhelming. The practice of mindfulness helps us to be ok with changes from one minute to the next.

Instead of focusing on the unknowns and the unpredictable, focus on what we do know and what we can do right now. Taking action makes a person feel more in control.

V) Grief work: The idea of grieving is important during these times. Realize that many of us are grieving many losses: people who have died, feeling as safe as we used to, a job, a home, financial security, a way of life, predictability (or so we convinced ourselves), friendships lost for various reasons associated with the pandemic, leadership that used to bring us together in difficult times instead of creating divisions. Many of these losses will make us recall other losses in our pasts, thereby making the grieving more intense.

The more losses/changes that occur at the same time, the more difficult the grieving process will be. Allow yourself to feel sad or angry or anxious about the changes and the losses. But try to find ways to balance the intensity of the difficult emotions with uplifting ones like:

VI) Gratitude: keep a journal, concentrate on the small things we all take for granted, or the experiences that are bigger than just you and me. Be in nature, look to the sky, and the stars at night, gaze at the mountains, watch wildlife, look at flowers, children, pets. Experience the music and art that you love: things that take you out of and beyond yourself. Do this virtually if necessary.

VII) Practical ideas for dealing with any type of anxiety and in particular dealing with life during this pandemic (also discussed in first presentation which can be seen on my website) (also summarizing some of the ideas in this presentation)

Find ways to connect to others...physical not social distancing

Avoid erroneous thinking patterns

Create daily and weekly routines

Take it one day at a time

Do some sort of exercise daily if possible

Allow yourself to grieve

Find things to be grateful for

Each day: take care of self/do something productive/do something fun

Develop a new talent....something you have been putting off for lack of time

Deepen spiritual life: use prayer and other spiritual practices

Start a project you have been meaning to get to

Remember how you got through other tough times

Remember that all feelings ebb and flow and pass, even if the underlying reason remains/Practice mindfulness throughout the day

Be your own leader: make decisions that work for you

Practice loving kindness towards yourself first and then those around you

Consider supplements or medications if necessary

Find a balance between action and stillness

Ask for support from friends/Consider seeking professional help

(Read the story about golf and the monkeys)

VIII) Concluding statements: Remember that anxiety is a sensation, which does not necessarily represent the reality of the danger.

And lastly ask for help. It is not a sign of weakness to know that you need help and to reach out and ask for it.

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