The Anhedonia Paradox: Understanding Negative Symptoms

By Dr. Laura Tully, PhD

The positive symptoms of psychosis—e.g. delusions, hallucinations, disorganized speech and thoughts (see page 2 for definitions)—take center stage in the early stages of treatment. Once these are under control, clients and their families might assume that a return to prior functioning is a given. Unfortunately, this is often not the case. Negative symptoms are the silent burden that many of our clients struggle with long after their positive symptoms have been addressed. Negative symptoms—so called because they represent a loss or lack of typical behavior—include anhedonia (lack of pleasure or desire for pleasurable things), avolition (lack of motivation/initiative) and flat affect (lack of emotional expression). These symptoms can sometimes be mistaken as stubbornness, laziness, or disinterest in treatment, and can lead clients and families to feel frustrated at the slow pace of recovery. But negative symptoms are a core part of psychotic illness, and understanding them is helpful.

Just like diabetes is a pancreas-based illness, psychosis is a brain-based illness. That is, the organ in our bodies that has gone awry in psychosis is our brain. Negative symptoms occur due to dysfunction in the brain systems that help us imagine what we will enjoy in the future and decide if we are motivated to seek out that enjoyment. If our brains aren’t able to accurately predict how much fun say, going to the movies with a friend will be, it makes sense that we wouldn’t want to go in the first place! This is the root of negative symptoms. But, it turns out that the ability to enjoy things in the moment is still intact—this is termed the “anhedonia paradox”. That is, when individuals with psychosis are asked to rate how much they think they will enjoy a future activity (e.g. going to the movies with a friend) they often say that they will not enjoy it at all. But, when asked how much they are enjoying watching a movie with a friend in the moment that they are doing it, they will rate their enjoyment the same as people without psychosis.

Medications do not adequately address negative symptoms. But we can use our knowledge of the anhedonia paradox to treat negative symptoms with therapy. The current most effective therapeutic treatment is called “behavioral activation”. Behavioral activation is a technique used to help clients discover what activities they experience pleasure and/or accomplishment from.

The key to successful behavioral activation is to plan at least one activity each day that could be fun (e.g. lunch with a friend) or make you feel accomplished (e.g. completing your homework) and to rate on a scale from 1 to 10 how much you are enjoying the activity in the moment and how much accomplishment or “mastery” you feel in the moment. You can ask your loved ones to help you remember to make this rating in the moment. Each day you will record data that can help you understand what activities you enjoy and feel mastery doing. This will help you and your family understand that, even though you might not predict enjoying going to lunch, you may actually enjoy it in the moment. This knowledge can help motivate you to get back to some of your daily activities. More importantly, by engaging in behavioral activation and doing daily activities, you are also combatting your negative symptoms!
Symptoms of Psychosis - A Refresher

When you hear the terms “positive” and “negative” symptoms, you might assume that one is somehow good while the other is bad. Not so! These terms simply refer to the presence of behaviors or experiences that are not common, versus the absence of behaviors or experiences that are. Let’s do a quick review:

**Positive Symptoms**

Positive symptoms are behaviors not generally seen in most people. People with positive symptoms may “lose touch” with some aspects of reality. For some people, these symptoms come and go; for others, they persist. Sometimes the symptoms are severe, and at other times they are hardly noticeable. Positive symptoms include the following:

- **Hallucinations** are sensory experiences that occur in the absence of a stimulus. These can occur in any of the five senses (vision, hearing, smell, taste, or touch). “Voices” (auditory hallucinations) are the most common type of hallucination. The voices can either be internal, seeming to come from within one’s own mind, or they can be external, in which case they can seem to be as real as another person speaking. The voices may talk to the person about his or her behavior, command the person to do things, or warn the person of danger. Sometimes the voices talk to each other, and sometimes people talk to the voices that they hear. Other types of hallucinations include seeing people or objects that are not there, smelling odors that no one else detects, and feeling things like invisible fingers touching their bodies when no one is near.

- **Delusions** are strongly held false beliefs that are not consistent with the person’s culture. Delusions persist even when there is evidence that the beliefs are not true or logical. People can have delusions that seem bizarre, such as believing that neighbors can control their behavior with magnetic waves. They may also believe that people on television are directing special messages to them, or that radio stations are broadcasting their thoughts aloud to others. These are called “delusions of reference.” Sometimes they believe they are someone else, such as a famous historical figure. They may have paranoid delusions and believe that others are trying to harm them, such as by cheating, harassing, poisoning, spying on, or plotting against them or the people they care about. These beliefs are called “persecutory delusions.”

- **Thought disorders** are unusual or dysfunctional ways of thinking. One form is called “disorganized thinking.” This is when a person has trouble organizing his or her thoughts or connecting them logically. He or she may talk in a garbled way that is hard to understand. This is often called “word salad.” Another form is called “thought blocking.” This is when a person stops speaking abruptly in the middle of a thought. When asked why he or she stopped talking, the person may say that it felt as if the thought had been taken out of his or her head. Finally, a person with a thought disorder might make up meaningless words, or “neologisms.”

- **Movement disorders** may appear as agitated body movements. A person with a movement disorder may repeat certain motions over and over. In the other extreme, a person may become catatonic. Catatonia is a state in which a person does not move and does not respond to others.

**Negative Symptoms**

Negative symptoms are associated with disruptions to typical emotions and behaviors. These symptoms are harder to recognize and can be mistaken for depression or other conditions, and can therefore be difficult to address effectively. Yet, negative symptoms are often the reason people cannot live independently, work or go to school, or interact socially. People with negative symptoms may need help with everyday tasks. They may neglect basic personal hygiene. This may make them seem lazy or unwilling to help themselves, when in fact these behaviors are symptoms of psychosis. Negative symptoms include the following:

- **Flat affect** is the reduced expression of emotions via facial expression or monotone speech. It mistakenly creates the impression that a person does not care or is indifferent, and therefore can create problems within a family, or social interactions with friends.

- **Anhedonia** is when a person experiences diminished feelings or anticipation of pleasure in the activities of everyday life. People experiencing anhedonia may stop seeing family and friends, and isolate themselves at home.

- **Avolition** is when a person has difficulty beginning and sustaining activities, or a marked lack of motivation to do something, e.g. homework or chores, even though the desire to get the task done is present.

- **Reduced speech** is when a person uncharacteristically responds in a minimal way, e.g. with single words, or does not initiate conversation in a typical fashion.

Essential Fatty Acids and Psychosis
By Dr. Paula Wadell, M.D.

There are many different types of molecules the body needs to function well. Most can be made from various foods in the diet but there are a few that the body is unable to make. These nutrients are called “essential” because they must come directly from the diet. Essential fatty acids are a type of fat the body needs.

Omega 3 fatty acids, specifically EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), have recently shown some potential for preventing and treating schizophrenia. However, before buying any supplements, there are several points that should be considered. First, studies so far have included small numbers of participants and have not consistently shown a benefit. Second, fish oil supplements don’t always contain what they claim to. Omega 3 fatty acids are unstable, which means they can break down into other molecules that are not helpful or might even be harmful. Manufacturers can also exaggerate the contents of their supplements. Studies by independent companies like LabDoor have found label accuracy to be a significant issue. However, people in the United States do tend to consume less than the recommended amount of omega 3 fatty acids and there is evidence to suggest these fatty acids are very beneficial. In addition to potential mental health benefits, they can prevent cardiovascular disease, lower blood pressure, reduce heart rate and decrease inflammation.

For all these reasons, increasing omega 3 fatty acid consumption is a great goal. Try to increase omega 3 fatty acid consumption through the diet. Guidelines for omega 3 fatty acid consumption are still in development but the World Health Organization recommends at least 250mg of EPA + DHA per day for most people. The best source for EPA and DHA is fatty fish. Some plants are rich in ALA (alpha-linolenic acid), which can be converted to EPA and DHA by the body, but this conversion is highly variable from person to person and tends to be low. Dietary ways of meeting the DHA and EPA intake guideline include:

- **Eat fish 2 times per week.** Shrimp, canned light tuna, salmon, pollock and catfish are high in DHA and EPA. Avoid shark, swordfish, tilefish and king mackerel because they can contain high levels of mercury.
- **Incorporate seaweed into your diet.** Kelp, laver and wakame are all types of seaweed high in EPA.
- **Add nuts to your favorite recipes.** Flax seeds, walnuts, soybeans and their corresponding oils, pumpkin seeds, and olive oil contain ALA.

If instead of changes to your diet you are considering an omega 3 supplement, follow these helpful guidelines from the Food and Drug Administration (FDA):

- Use non-commercial sites when searching for supplements on the internet, e.g. FDA, National Institutes of Health (NIH) and Dept. of Agriculture (USDA), rather than doing blind searches.
- Watch out for false statements like “works better than [a prescription drug],” “totally safe” or “no side effects.”
- Be aware that the term “natural” doesn’t always mean “safe”.
- Ask your healthcare provider for help in distinguishing between reliable and questionable information regarding supplements.
- Always remember – safety first!
Family Focus: The Pitfalls of Minimizing Negative Symptoms

by Bonnie Hotz, Family Advocate

As the parent of a child with a psychotic disorder, I experienced a rush of conflicting emotions while sitting in the audience listening to Dr. Laura Tully speak about the “anhedonia paradox” at the UC Davis annual Psychotic Disorders conference in November. Initially, I was relieved that there was a reason why my bright and once highly motivated daughter was struggling so much with school and work, as well as simple tasks such as keeping up with laundry or putting dirty dishes in the dishwasher. But I also felt ashamed that out of frustration I had sometimes accused her of being lazy, or had been resentful of needing to step in and help her with basic tasks that, in my mind, she should be able to do herself. So that’s what I want to talk with you about here, i.e. the importance of understanding what negative symptoms are, and the pitfalls of minimizing them.

If negative symptoms are a new concept for you, I encourage you to pay close attention to Dr. Tully’s article on page 1 of this issue, and also go through the refresher on symptoms on page 2. Then bring any questions you have to the clinic to discuss with your loved one’s doctor or clinician. Why? As caregivers, it’s very important for us to understand what negative symptoms look like, not just so we can better support our loved ones, but because this knowledge and insight will greatly reduce the stress and frustration we inevitably feel ourselves.

Negative symptoms are cagey. They impersonate feelings and behaviors we all experience, so can easily hide among us. Who hasn’t been lazy at one time or another, or avoided an onerous task? What about that time when you just felt like staying home and doing nothing, so made excuses (or didn’t pick up the phone) when friends called? Or maybe you slipped into binge mode with a video game and didn’t shower or join the family at the dinner table for a few days. We might not be proud of them, but these behaviors aren’t anything out of the ordinary, right? If they persist, though, they become a concern to those around us. Parents get frustrated and irritated; friends feel neglected and hurt.

When a loved one first develops psychosis, all the focus is rightly on the positive symptoms, e.g. hallucinations, paranoia, disorganized thinking, etc. These are the disruptive and sometimes frightening experiences that are impacting school and work, or jeopardizing one’s safety. Once the positive symptoms are brought under control through treatment, however, we are relieved. We assume the worst is behind us, and that our loved one will just pick up where they left off before they became ill. But negative symptoms often emerge later in the illness. Because they so closely resemble typical behaviors, we don’t recognize them as symptoms, even when we know they exist. We may misguidedly blame our loved ones for them, like I did with my daughter. And our loved ones may blame themselves too.

So how do we know when a behavior is a negative symptom, and not, for example, just a typical bout of laziness or desire for alone time? Unless pronounced or debilitating, negative symptoms can be hard to recognize, by caregivers and loved ones. Instead of getting frustrated with my daughter, I now bring these behaviors to her attention, and together we try to get a better understanding of what’s going on. When needed, we’ll discuss it with her doctor. Now that we’re aware of behavior activation therapy, we plan to explore that with her therapist. Acknowledging the reality of negative symptoms has given us renewed hope for her recovery. I encourage you to also learn about and understand your loved one’s negative symptoms. You’ll be glad you did.

Are YOU interested in research?

We offer many opportunities for our clients to participate in studies of different types and durations. Contact Erica at the UC Davis Imaging Research Center at (916) 703-5399 to learn more.
# Upcoming Community Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Days</th>
<th>Times</th>
<th>Location</th>
<th>Cost</th>
<th>Info/Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconnect with Your Teenager</td>
<td>Saturdays Jan 7-Feb 11</td>
<td>9:00 am -1:00 pm</td>
<td>Children's Receiving Home 3555 Auburn Blvd. Sacramento, CA 95821</td>
<td>$20</td>
<td>Pamela McPhail (916) 482-2370 Ext. 1015 <a href="mailto:pmcpail@crhkids.org">pmcpail@crhkids.org</a></td>
</tr>
<tr>
<td>Parenting with Love &amp; Logic</td>
<td>Wednesdays Jan 11-Feb 15</td>
<td>6:00-8:00 pm</td>
<td>Oakmont HS Library 1710 Cirby Way Roseville, CA 95661</td>
<td>Free</td>
<td>Jeremiah Aja (916) 905-6086 <a href="mailto:jeremiah@wellnesstogether.org">jeremiah@wellnesstogether.org</a></td>
</tr>
<tr>
<td>Sibling Workshop (Ages 14-18)</td>
<td>Saturday Jan 28th</td>
<td>10:30 am - 2:30 pm</td>
<td>Fair Oaks Library 11601 Fair Oaks Blvd. Fair Oaks, CA 95628</td>
<td>Free</td>
<td>Register online at <a href="http://www.eventbrite.com/e/sibling-workshop-ages-14-18-tickets-28011727832">www.eventbrite.com/e/sibling-workshop-ages-14-18-tickets-28011727832</a></td>
</tr>
<tr>
<td>NAMI Peer to Peer Course</td>
<td>Next 10 week session TBD</td>
<td>One evening per week TBD</td>
<td>TBD</td>
<td>Free</td>
<td>Get on the wait list for this popular course by calling (916) 364-1642 or email <a href="mailto:P2P@namisacramento.org">P2P@namisacramento.org</a></td>
</tr>
<tr>
<td>Teen Anger Management Group</td>
<td>Wednesdays</td>
<td>6:00-8:00 pm</td>
<td>Fruitridge Community Ctr 4000 Fruitridge Road Sacramento, CA 95820</td>
<td>Free</td>
<td>Sac Advocates for Family Empowerment (SAFE) Sandena Bader (916) 855-5427 <a href="mailto:sbader@norcalmha.org">sbader@norcalmha.org</a></td>
</tr>
</tbody>
</table>

# Newsletter Contributors

**Dr. Laura Tully, PhD** – Dr. Tully is a Harvard-trained clinical psychologist who provides instruction in evidence-based treatment and assessment approaches for early psychosis youth in the EDAPT clinic, with an emphasis on CBT for psychosis. Dr. Tully’s research includes the use of smartphone technologies, such as mobile health applications, as add-on tools for symptom management and treatment in early psychosis care. In particular, Dr. Tully is interested in how to improve emotion regulation skills using smartphone app technology in order to reduce stress and symptom exacerbations.

**Dr. Paula Wadell, MD** – Dr. Wadell is an Associate Physician at UC Davis and the Medical Director of the UC Davis Early Psychosis programs. She is both an adult psychiatrist and a child and adolescent psychiatrist, and completed her medical school, residency, and fellowship at UC Davis. As Medical Director, she provides psychiatric care and also develops systems of care to ensure that all clients receive the best treatment possible.

**Bonnie Hotz** – Bonnie is the SacEDAPT Family Advocate. Her experience living with a family member with a severe mental illness, as well as her family’s previous involvement with the EDAPT Clinic as a client, provides a uniquely personal perspective to the clinical team.

---

This newsletter is a publication of the UC Davis EDAPT and SacEDAPT Early Psychosis Programs. Founded in 2004 by Cameron Carter, M.D., the UC Davis early Psychosis Programs are nationally recognized as a leading provider of early psychosis care. Our programs have a strong and diverse interdisciplinary team of physicians, clinicians, support staff, consumer and family advocates with unique expertise in state of the art assessments and evidence based practices for early identification and intervention for psychotic disorders. We provide targeted medication and psychosocial interventions, as well as case management services, and supported education and employment with the goals of early diagnosis, treatment, and disability prevention. For more information please visit our website, [http://earlypsychosis.ucdavis.edu/](http://earlypsychosis.ucdavis.edu/).