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Common Characteristics of Adults with Down Syndrome

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Introduction

Each person with Down syndrome is a unique individual with their own personality, strengths, and weaknesses. It is important to appreciate this when providing care for adults with Down syndrome. On the other hand, there are some personality characteristics that are common, albeit not universal, in individuals with Down syndrome, and recognizing these is critical to avoid misdiagnosing these common characteristics as mental illness.¹ Understanding how these traits can be a strength can also be significant in promoting healthy habits and behaviors.

Some of the common personality characteristics of individuals with Down syndrome include:²

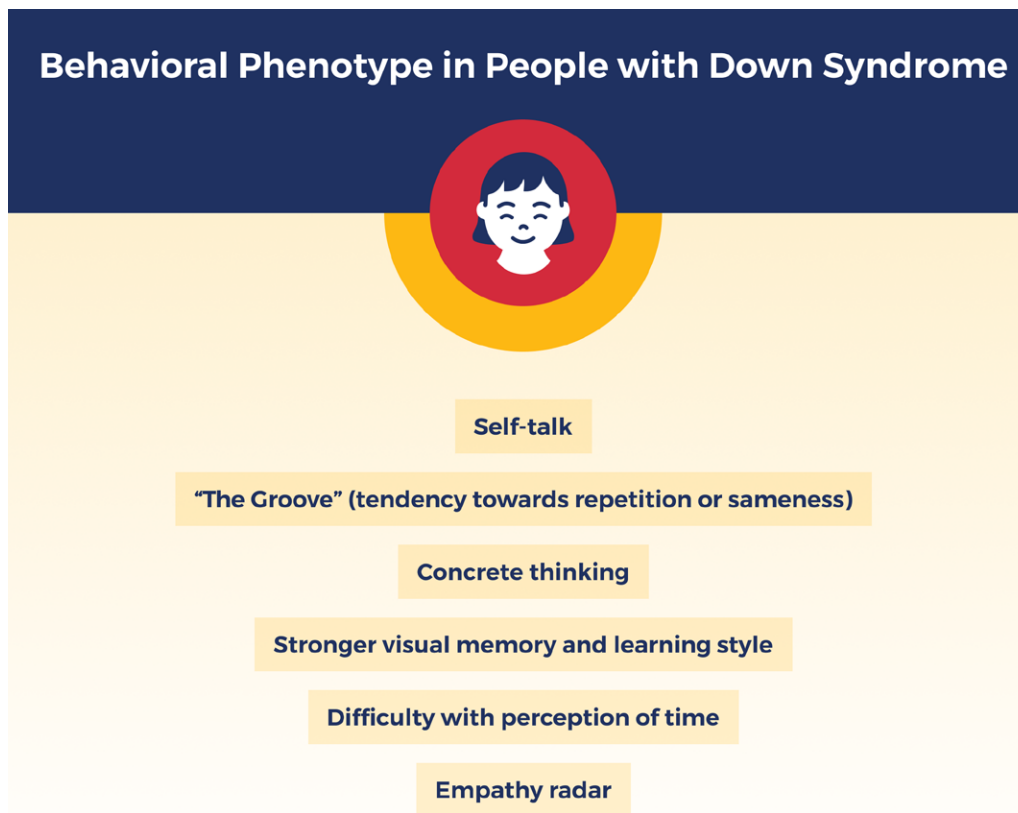
- Self-talk
- “The Groove”
- A strong link between physical and mental health
- Concrete thinking
- Enhanced visual memory and learning
- Altered perceptions and understanding of time
- Empathy radar

Self-Talk

Many individuals with Down syndrome talk to themselves.³ Self-talk is used to review the day, process stress, solve problems, and entertain oneself. Although self-talk sometimes is misinterpreted as psychotic behavior, typically it is not pathologic and can, in fact, have many positive functions.⁴ Alternatively, a change in self-talk can be a sign of physical, mental, or social stressors and should be investigated.

Self-talk is not unique to individuals with Down syndrome. Athletes without an intellectual disability have been found to use self-talk to improve performance and enhance attention.^{5,6} The beneficial functions of self-talk include self-regulation, providing instruction and motivation, enhancing self-awareness, and coping with painful experiences.⁷ It can also be used as a form of self-criticism.⁸ Individuals with and without Down syndrome self-talk more when socially isolated, under stress, or after an episode of “cognitive disruption” in which they attempt to process traumatic personal events.⁸

Many individuals with Down syndrome have an imaginary friend or friends and speak with those individuals during self-talk. In adults without Down syndrome, self-talk and imaginary friends have been found to be linked in that those that had an imaginary friend in childhood tend to self-talk more in adulthood.⁹



“The Groove”

Individuals with Down syndrome have a tendency towards repetition or sameness, often referred to as “the groove”.¹⁰ They frequently develop compulsive-like behaviors or routines.¹⁰ These routines can often be functional, improving the performance of daily activities and promoting independence.

Although obsessive-compulsive disorder and autism, which both include repetitive and stereotyped behaviors, are each more common in individuals with Down syndrome,^{11,12} these compulsive tendencies are also displayed by many

individuals with Down syndrome who don’t have either diagnosis. One study, comparing individuals with Down syndrome with or without autism, found no statistically significant differences in these repetitive behaviors,¹³ though there were differences in social communication. Notably, the repetitive behaviors of individuals with Down syndrome are different than the compulsions of obsessive-compulsive disorder, in that the compulsions of obsessive-compulsive disorder are not functional and don’t contribute to learning.¹¹ More information is available in the article [*Mental Health: Diagnosis and Treatment of Adults with Down Syndrome*](#).

Repetitive tendencies can be associated with behavioral problems in individuals with Down syndrome, particularly in adulthood.¹⁴ It's appropriate to recognize the potential benefits of the groove when engaging with someone with Down syndrome, but encouraging flexibility is also healthy as it promotes resilience and reduces the potential for behavioral problems. [Resources on "the groove"](#) are available to share with families and individuals.¹⁵

A change in a groove or the loss of a groove's functionality may be a sign of psychological strain, social anxiety, mental or physical illness, dementia, or other stressors. Assessing the underlying cause is important to remedy the situation and reduce any negative behavioral effects.

Physical and Mental Health

There is a strong link in individuals with Down syndrome between their physical and mental health. This is not unique to individuals with Down syndrome; however, due to impaired communication skills in many individuals with Down syndrome as well as other factors, their physical problems more often present as behavioral or psychological changes.¹⁶ Some of these changes may be direct symptoms of the underlying physical condition, such as depression associated with hypothyroidism or attention impairment associated with obstructive sleep apnea. Other changes may be indirect and a signal of not feeling well, such as irritability secondary to the discomfort associated with celiac

disease or aggressive behavior secondary to the pain of arthritis. When assessing any behavioral or psychological change in an individual with Down syndrome, it is very important to look for underlying physical problems.¹⁷

Concrete Thinking

Individuals with Down syndrome often think in a very concrete manner and may have difficulty thinking abstractly.¹⁸ The concrete nature of thought in most individuals with Down syndrome can be very functional in daily life, if allowed to flourish in an appropriate setting. Specifically, individuals with Down syndrome tend to be more successful in settings with clear and predictable rules and routines. However, this thinking style can pose a challenge to adaptation and executive functioning.¹⁹ Concrete thinking can be a barrier to changes in routine, rules, or guidelines at work, at home, and in social settings. As an example of the limitations of concrete thinking, many people with Down syndrome have difficulty understanding time, as detailed below. This lack of flexibility may also contribute to the desire for sameness and repetition, as described above.

Enhanced Visual Memory and Learning

Many individuals with Down syndrome have strong visual memories and learning styles.²⁰⁻²² Taking advantage of this strength can improve cognition and reinforce healthy behaviors. When provided visual aids, individuals with Down

syndrome learn better,²³ and keeping those visual aids consistently available enhances their adherence to healthy routines. On the other hand, visual memories of negative events may be so strong that it becomes difficult for the individual to divert attention. Individuals with Down syndrome may repeatedly visualize any negative event in vivid detail and may also internalize things they have seen in pictures, videos, or television as though it was a lived experience for them. It can be helpful to ask, “Is that what happened, or is that what you *hope* will happen, or *think* has happened?” One can also point out to the individual the source of their thought by saying, “That reminds me of a story I saw on the news” or “That sounds like something that happened in a scary movie.” These conversations can help individuals with Down syndrome think through what is reality and what is not.

Altered Perceptions, Descriptions, and Understanding of Time

There is little research on how individuals with Down syndrome understand time.^{24,25} Anecdotally, many individuals with Down syndrome process time differently, meaning that there may be little difference between their perception of last week and years ago, or they may lack the ability to describe accurately sequences of events. In individuals with Down syndrome, expressive language typically is less developed than receptive,²⁶ which may limit how events are described. A person’s description of an event

may include words that could be concerning to the listener but are not intended that way. For example, an individual with Down syndrome may describe someone accidentally bumping into him as “she pushed me.” Cognitive differences in the understanding of past, present, and future tenses can cause further misunderstanding as to the sequence of events or the chain of cause and effect.

Although there is no published study of whether individuals with Down syndrome lie, clinically and by some reports individuals with Down syndrome sometimes do not “tell the truth.”^{27, 28} This behavior often appears to be different than “lying”, as typically understood to mean deliberate dishonesty with bad intent. Rather, “not telling the truth” is related to the individual’s altered understanding of events and their unique way of providing descriptions. These differing abilities may also complicate getting an accurate medical history. To establish a time frame, linking health-related questions to other events can be helpful. For example, when investigating an illness, ask if any symptoms coincided with other events such as lunch, school, or when a sibling was visiting.

Empathy Radar

“Empathy radar” is a term coined to describe the finding that adults with Down syndrome appear to excel at sensing the emotions of other people.² However, it may be that individuals with Down syndrome simply have more dramatic responses to stressful situations rather than any greater

ability to sense the distress of others. Although there are limited studies regarding empathy in individuals with Down syndrome, one found that “children with Down syndrome respond to distress in others by showing concern and offering comfort but are less able to empathize with others in more abstract, hypothetical situations.”²⁹ Whatever the source, these empathetic and pro-social responses are typically viewed as positive characteristics of individuals with Down syndrome. Conversely, clinically it is noted that individuals with Down syndrome often absorb the troubling emotions and stress of difficult situations, and that some individuals develop anxiety and negative coping behaviors.

Summary

Being aware of the common characteristics of individuals with Down syndrome can reduce diagnosing these conditions as pathology. These common characteristics can also be used strategically to help individuals develop healthy habits and behaviors. For example, many individuals with Down syndrome use self-talk to teach themselves. Once habits are learned, “the groove” can help them maintain and consistently repeat those behaviors. Similarly, understanding the strong link between physical and mental health in individuals with Down syndrome can reduce over-diagnosis of mental health issues and under-diagnosis of physical health problems. When mental and physical symptoms co-occur, not diagnosing and treating the physical problem will typically result in poorer outcomes.

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