

Sensory integration rooms in care centers for autistic children

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Abstract:

Autism spectrum disorder (ASD) is a neurological disorder that affects children with a developmental disability that causes social, communication, and behavioral challenges. Once children with autism begin their learning process, environmental quality becomes very important to avoid confusion and frustrate the autistic mind because autism is a very complex condition that affects each person differently and can benefit more from the sensory input provided by the built environment.

In short, ASD is a developmental disorder that leads to difficulties in interaction, communication and social behavior in the individual. Autism is referred to by the term "spectrum" because there is a wide variation in its types and severity, and it is described as a developmental disability or disorder because its symptoms generally appear in the first two years of the person's life This does not necessarily mean that he was diagnosed at that age. An individual can be diagnosed with autism at any age, and although it is a chronic disorder, treatments may improve the person's condition and ability to interact.

It affects males more than females, and according to what was published by the World Health Organization, it was found that out of 60 children there is a child with autism around the world, and this is an average estimate. It has been observed that there is a difference in the reported prevalence rate in the studies, in addition to the fact that the statistics were not complete or accurate in poor and low-income countries or even the average, and it is worth noting that - according to the World Health Organization as well - it is found that autism is on the increase worldwide. .

This increasing prevalence of autism spectrum disorder has become a major challenge to education because many children with autism are required to have intensive interventions to facilitate their participation and success in the educational environment.

Children with autism develop their potential while in care. Therefore, properly designed the physical learning environment will enrich the growth and education of children. Thus, it contributes to improving school readiness.

The learning environment has become important because research has demonstrated that the quality of educational facilities affects learning outcomes and the individuals with in Building). In order to promote the growth of children with autism, they stressed the importance of making sure that the building is effective and suitable for all its users, especially for children with autism. Therefore, the role and responsibility of the interior designer is to provide a design that responds to the needs of all members of society. However, the designer should be aware of

sensory issues related to the built environment in the daily life of autistic disorder before the design stage. Any unwanted distraction can negatively affect a child's ability to learn.

This research aims to identify the design of sensory integration rooms in autism care centers in order to improve the physical condition of an educational environment supported by sensory design features.

A- Signs and symptoms of autism

Children diagnosed with autism have symptoms common to school participation, including sensory processing difficulties, stereotypical behaviors, communication and language difficulties, decreased muscle tone and sleep disturbances. They may find it difficult to engage in occupations typical of childhood, such as activities of daily living, social participation and play, and education. An individual with autism often affects a child's ability, understanding of language, playing and communicating with others. They also identified symptoms of such repetitive activities and stereotyped movements, struggling to cope in the environment and the daily routine and abnormal responses to sensory experiences. ASD is characterized by social contact and social interaction they are not only poor in social communication and especially weak eyes, lack of common interest, pedantic or strange speech patterns, lack of ability to solve social problems, lack of empathy, difficulties interpreting body language but also restriction of repeated patterns of behavior. Children with autism spectrum disorder face difficulties in developing language, hearing and communication skills. Therefore, they express themselves with unconventional behaviors such as aggression, bad moods, or injuring themselves.

Autism spectrum disorder and sensory processing

The term sensory processing refers to the way the brain's nervous system finds it difficult to receive and respond to information received through the senses. Where sensory processing disorders in children with autism spectrum disorder affect one or all of the sensory systems receiving external stimuli, the sensory tracts occur along a variety of ranges, from hyper responsiveness to lack of response.

Hyper-response indicates that the sensory channel is too "open", and therefore there is a lot of stimulation for the brain to deal with, while lack of sensory response indicates that the channel is not open enough, so little stimulation deprives the brain of sensory input, so we find it difficult to process and integrate. Sensory information, for example, symptoms of sensory disturbances may appear in the sense of sight by covering the child's eyes to avoid seeing some colors and things, in addition to difficulties in visual communication and joint attention, as it appears in the sense of hearing in the form of covering the ears to avoid some natural sounds, screaming, Or looking for loud auditory stimuli, while those disturbances affect the sense of touch in the form of some abnormal behaviors such as refusal to embrace, excessive responses to the touch of some fabrics, and disturbed responses to some daily life skills such as hair cutting, brushing teeth and bathing, does not feel a sense of pain, heat, etc. In addition to the emergence of some symptoms on some aspects of balance, such as: difficulty in controlling balance, impaired movement planning, and the emergence of repeated stereotypical movements such as rotation and flapping of the hands, and may appear. Symptoms of this disorder in the sense of body awareness (proprioception) are related to the muscles and joints, through the difficulty in assessing the size of the space they need to reach a certain point, and the difficulty in controlling the smaller muscles, especially holding the pen, and writing skills.

What is Sensory Integration

Sensory integration is the process of regulating input (stimuli) entering the brain from the body or the surrounding environment.

In order to use them and give them meaning to things, and our different senses send information (stimuli) about the state of our bodies, such as the sense of sight - touch - smell - hearing - ...

and an endless number of information enter the brain. The brain here has to organize these sensory experiences that the brain merges together, and sensory integration or merging occurs.

Sensory integration is impaired

The weakness of sensory integration is a type of deficiency that affects the formation of concepts and experiences, which leads to learning difficulties, less success, and more behavioral problems due to poor response to sensory stimuli sometimes and exaggeration in response at other times.

Sensory Therapy Rooms: "Snoezelen"

The sensory room is a space designed to help an individual with sensory problems learn and regulate their brain's negative reactions to external stimuli by developing the skills of coping with these experiences. In order to stimulate the senses of the child who suffers from hypersensitivity or hypersensitivity, it enhances learning and play, addresses behavioral problems, and improves balance, movement and spatial orientation. It helps the child to explore the various elements around him and interact without risks and reduce stress.

In some cases, it might be a whole room, or it could simply be a designated space aside in the corner of a larger room. The contents and design of a room or sensory space can - and must be tailored to the needs of each individual because everyone with severe sensory problems will deal with different stimuli and have different requirements when it comes to learning to deal with the world around them.

The importance of creating a sensory room or space:

Individuals suffering from all of the above conditions often struggle to deal with the world around them. Loud noise, bright lights, rough patterns, or foods with unwanted textures are just some of the things that can cause discomfort. Because their condition can amplify seemingly small sensual encounters, they are prone to meltdowns or tantrums. How does the sensory room help? It provides a place for a person with special needs to go to when a crash occurs. But it's not just a place for a time out. Although it can be a quiet place where they can regain control of their emotions, the sensory room can also provide a pleasant, low-stress environment for an individual to act through their emotions and reactions to certain stimuli.

While they cannot necessarily desensitize their brain to certain stimuli, they can train their brain to overcome its sensitivity and develop coping mechanisms that serve them well in the world outside their sensory realm.

This requires a group of specialists and supervisors to treat children.

Sensory Therapy Rooms: "Snoezelen"

Sensory integration rooms, or so-called Snoezelen rooms, are rooms that address the senses therapeutically and are classified as "sensory integration spaces" in order to stimulate the senses of the child who suffers from excessive or low sensitivity, enhance learning and play, treat behavioral problems, and improve balance, movement and spatial orientation.

It is a safe environment that allows a person to use it to explore the various elements around him and interact without risks and reduce stress.

The equipment used in the sensory room:

The room contains many visual, auditory and other effects related to the senses such as smell and touch such as a bubble bath, optical fibers to stimulate the sense of sight, bubble columns containing a transparent liquid and emit bubbles to relax nerves, a running fountain, spherical mirrors that reflect lights on surfaces, projection devices that display an image on A surface to be determined to attract the child's attention and implement the desired goal of the selected skills, a sound and light wall, a bed in water and music to stimulate the sense of hearing, a perfume dispenser to stimulate the sense of smell and seats made of special fabrics to help relax.

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