

Beyond Limits: Unlocking Potential in the Journey of Swapnil, a 4-Year-Old with Autism Spectrum Disorder

Sneha HirenBhalala (PT)

Assistant Professor

SPB Physiotherapy College, Surat

Introduction:

Swapnil, a bright-eyed 4-year-old boy, embarks on a unique journey shaped by his diagnosis of Autism Spectrum Disorder (ASD). Born into a loving family residing in the serene suburbs, Swapnil's developmental trajectory took a distinctive turn when signs of ASD emerged, altering the course of his early childhood experiences.

Swapnil's developmental milestones initially followed a typical trajectory, characterized by independent sitting at 9 months and unassisted walking by 16 months. However, subtle nuances in his behavior caught the attention of his vigilant mother, prompting a comprehensive evaluation at the tender age of 20 months. Concerns regarding language delay, sensory sensitivities, and social interactions surfaced, leading to a pivotal diagnosis of ASD.

Armed with a diagnosis, Swapnil's family embarked on a proactive approach, engaging in early intervention programs tailored to address his unique needs. Educational, speech, occupational, and physical therapies were seamlessly integrated into his daily routine, laying the foundation for holistic support. As he transitioned into the preschool program at the local elementary school, a collaborative effort between parents, educators, and therapists ensued, ensuring a conducive learning environment enriched with specialized educational instruction and therapeutic interventions.

Swapnil's journey is characterized by a nuanced exploration of language and social interaction domains. Echolalic speech patterns and sensory sensitivities posed initial challenges, requiring a tailored approach emphasizing visual supports, structured routines, and positive reinforcement strategies. Through targeted interventions, facilitated peer interactions, and the integration of sensory-friendly accommodations, Swapnil's communicative repertoire expanded, fostering moments of connection and engagement within his social milieu.

Navigating the realm of sensorimotor development, Swapnil's journey is marked by a delicate balance between sensory processing challenges and motor skill acquisition. Stereotypic behaviors, sensory sensitivities, and motor planning difficulties manifested, necessitating a multifaceted intervention approach encompassing sensory modulation techniques, environmental modifications, and therapeutic activities aimed at enhancing gross motor coordination and balance.

In the realm of self-help skills and daily living, Swapnil's journey is a testament to resilience and adaptability. From dressing and toileting routines to mealtime autonomy, structured support systems and collaborative partnerships between home and school environments fostered incremental progress, empowering Swapnil to navigate essential self-care tasks with increasing independence.

Swapnil's journey epitomizes the transformative power of collaborative intervention, resilience, and unwavering familial support in navigating the complex terrain of Autism Spectrum Disorder. Through a holistic approach encompassing educational, therapeutic, and familial spheres, Swapnil's narrative embodies a beacon of hope, emphasizing the inherent potential and boundless possibilities within every child with ASD.

Case Description:

Swapnil—a 4-year-old boy with autism Swapnil is a 4-year-old boy who lives with his parents in a mid-sized home in a suburban area. He attends the preschool program of his local elementary school,

where he receives special education support services. He was diagnosed with autism at 30 months of age.

History

Swapnil's mom reported having a full-term pregnancy and a delivery that was without any notable problems. However, there is a family history of ASD because his uncle had the same diagnosis. Swapnil sat independently by 9 months, walked without assistance at 16 months, and would often fall while walking for several months. When Swapnil was 20 months old, his mother prompted evaluation by their paediatrician, and eventually a specialist, because she was concerned that Swapnil appeared to have a language delay and behaved "differently" than her friend's children. While he did not always attend to people calling his name or talking with him, Swapnil seemed very sensitive to sounds such as kitchen timers, construction sounds, etc., as demonstrated by tantrums when such sounds occurred. He would sit watching moving objects for extended periods, such as the fan, so much so that it was difficult for him to stop that activity. At 20 months, he had not produced words but grunted, growled, or cried to convey distress. He would not convey his needs or his feelings through gestures such as pointing to something he wanted or showing the toys that he played with. When they went to play dates with other children, Swapnil did not interact and would often remove himself from where the other children were playing, sometimes hiding behind the couches. He would repeatedly activate toys with flashing lights. His mother was very concerned because Swapnil would eat only macaroni and cheese and applesauce, and would refuse to even try most other foods. Birth-to-three programming began shortly after the diagnosis was made. Educational, speech, and occupational therapy services were provided regularly until Swapnil's third birthday. Interestingly, his parents insisted on physical therapy services for the overt gross motor issues they observed; hence those services were later added to his program. The early intervention staff provided the family with strategies to promote social communication and motor skills, modulate his sensory responses, engage Swapnil in the family's routine, and plan his transition into the preschool program.

Current status

Swapnil is currently enrolled in the morning preschool program at the local elementary school. Based on birth-to-three recommendations and initial assessment by the educational team, Swapnil receives specialized educational instruction, including one-on-one paraprofessional support, along with direct speech and language, occupational, and physical therapy services infused in the typical preschool activities. His individualized educational program addresses receptive and expressive language, social interaction, sensorimotor development, and self-help skills. The parents and the educational team meet once monthly to discuss Swapnil's progress and to coordinate efforts to maximize the consistency of expectations and interactions.

Language and social interaction

Swapnil demonstrates echolalic speech, that is, he repeats a few words uttered by adults or on television shows. All staff model appropriate verbal responses to situations clearly with emphasis and praise Swapnil when he imitates the correct response. He has very little spontaneous interaction with his peers and tends to engage in activities that do not involve interaction with others. Teachers and therapists have paired him with the least threatening peers for play and academic activities with favourable results. Swapnil does enjoy his time with the other children. He can stay in the desired location and concentrate on the task at hand with support. Swapnil demonstrates signs of anxiety (increased stereotypies and raised vocalizations) during transitions between activities and locations. A picture schedule is used to help Swapnil orient to his daily schedule. All classroom and related services are represented on the schedule. Pictures are also available to represent activities within each centre and to allow choices. He consistently looks toward the picture schedule to determine the next step in his routine, and he seems to make transitions more easily in response to prior notification through pictures than if no or little warning is provided. A similar picture system is used for the different home routines. Swapnil has recently begun spontaneously pointing to pictures of objects he would like on occasion. When Swapnil successfully performs the desired behaviour, those involved

with programming provide rewards that have been agreed upon by parents and educators. Each team member is aware of the plan and provides the reinforcement for a job well done and additional wagon time (Swapnil' preferred activity) for the successful completion of the activities asked of him.

Sensorimotor development

Swapnil has developed the stereotypic behaviour of rocking and occasionally spinning. He flaps his hands and watches them at times. He continues to become distressed with loud sounds; he often covers his ears and increases his rocking motion. Such responses also occur if adults or peers touch him. He prefers to play with the computer and toys that have lights. He will sit in circle time for only a few minutes before he wants to get up and move quickly about the classroom. On the playground, he enjoys activities that provide movement such as the swings, slides, and rotary equipment. It is sometimes a challenge for Swapnil to end such activities. In physical education, Swapnil typically runs around the space, behaviour escalates, and he sometimes tries to hide under the mats that are stacked against the wall. Swapnil is ambulatory without physical assistance around the interior and exterior of the school; he needs supervision and cuing for safety and direction. His gait pattern is usually characterized by toe-walking. He can run and change directions, but his motor planning is affected. He is unable to perform actions involving multiple steps required for using the stepper, scooter, or bicycle. He has not demonstrated multi-limb actions such as galloping, skipping, or maintaining a one-leg stance, and he usually does not respond to the request to copy the demonstrations of the PT/OT. He cannot ascend and descend stairs without the support of a railing and appears to lack balance in situations that require a narrow base of support. He presents with slightly diminished muscle tone as demonstrated by joint laxity and difficulty maintaining antigravity positions for extended periods. Swapnil's performance on the Movement ABC indicated that he functions in the 9th percentile for Manual Dexterity, 5th percentile for Aiming and Catching, and 1st percentile for Balance. Using the Sensory Profile, parents and educators provided information about Swapnil's responses to sensory stimuli. Based on their responses, definite differences with hypersensitivity were identified in the following areas: Tactile Sensitivity, Taste/Smell Sensitivity, Auditory Filtering, and Visual/Auditory Sensitivity. Based on observations throughout the school day, input from all team members, and results of standardized testing, the PT and OT have collaboratively made recommendations for strategies to help regulate sensory responses and promote gross and fine motor development. The OT and paraprofessional have found that Swapnil tends to sit longer in the circle activities when deep pressure input is provided. The use of a weighted lap blanket also seems to lengthen periods of quiet sitting. Swapnil tends to be more engaged in physical education activities when the lesson is conducted in a room smaller than the gymnasium. The staff is currently in the process of collecting data about time on task and signs of anxiety when wearing a weighted vest with special attention to performance during physical education. A designated time is now built into Swapnil's routine to use the swing on the playscape. Since adding this opportunity for Swapnil to get vestibular input, the rocking and flapping stereotypies have diminished. A rocking chair is available in the listening/story centre, and Swapnil is usually allowed to use it for short periods as a reward for completing his therapeutic/academic activities. A rocking horse is occasionally included as a gross motor option at recess. He has a cart that he loads with various objects that he pushes at home and school. The parents and school staff have developed a plan for after-school hours that allows Swapnil to play on his swing set and run in the yard with supervision shortly after he comes home. The speech and occupational therapists are currently working closely with the parents to systematically introduce textures and flavours into Swapnil's diet to expand his food choice repertoire. Swapnil's mother follows through by sending in snacks of various textures that can be trialed under the supervision of the trained related service providers. The PT recommended a trial of wearing high-top work boots to help improve Swapnil's gait pattern with positive results; consistent foot-flat and occasional heel strikes have been noted. Balance, coordination, and gross motor planning are being addressed within his physical therapy program. He is encouraged to walk on different ambulation surfaces that vary by texture, size, pitch, compliance, and stability. On more challenging surfaces, Swapnil's performance is enhanced if

the PT provides some manual support for him to hold onto gently and guard him. As a carryover, the paraprofessional walks with Swapnil along the railroad ties surrounding the playscape each day during recess while providing guarding and some manual support. Motor planning is addressed by engaging in throwing and catching through the use of beanbags and balls that vary in size, texture, and compliance. Targets have been chosen that will yield activation of lights or motion when successfully reached. Similar activities are done at school and during play at home. He is also learning to use exercise equipment such as a stepper and a tricycle but needs significant instruction and physical support to complete the activity. The paraprofessional is typically supporting the PT during these activities.

Self-help skills

Swapnil requires assistance to manage dressing and toileting at school and home. He uses pull-ups as he does not indicate when he needs to use the toilet. He can use his hands or utensils to feed himself, and he can independently use a cup with a spout to drink. His diet is limited to a few preferred food choices. The PEDI was done with observation and report by parent and educational staff, yielding normative standard scores for self-care of less than 10 (Caregiver Assistance less than 10), Mobility of 20.4 (Caregiver Assistance 60.7), and Social Function of less than 10 (Caregiver Assistance less than 10). The family identified washing and bathing as being particularly challenging as Swapnil seems genuinely fearful. The school staff plans to perform the SFA when Swapnil enters kindergarten. Family and educators identified hand washing and toileting as priorities. The special educator, the OT, and the PT broke each task into concrete steps and developed specific instructions for each step. The steps were described using a picture schedule placed at a location near the sink where he washes his hands. Everyone in school and at home who assists Swapnil with the hand washing and toileting goes through the picture schedule in the specified manner using the same terminology, provides praise along the way, and rewards him when he completes the task. Proper participation in self-help skills is also reinforced through stories that are part of the preschool curriculum. Collaborative input and efforts of the family, educators, caregivers, and medical personnel are imperative to optimize the programming for a child with ASD.

The likelihood of the child acquiring important lifelong functional skills is enhanced when:

- a. The activities are meaningful to the child and family and serve a long-term function.
- b. The activities are individualized to the child's ability level.
- c. The program accounts for and is respectful of the child's ability to take in information from the caregivers within the child's environment.
- d. The people who interact with the child with ASD are consistent in their expectations and implementation of the program.

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