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2-28-2017

Self Management: Overcoming Barriers to Success

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Self-Management: Overcoming Barriers to Success

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Abstract

Individuals with an autism spectrum diagnosis often have a social-skills deficit that may include the tendency to avoid eye contact. In addition, they may have sensory issues and become easily overwhelmed by excessive sensory stimuli. Self-management is a treatment that has been found to enhance the quality of life for individuals with or without an autism spectrum diagnosis. It has been helpful in treating procrastination, used to increase physical activity, lower caloric intake, and increase independence. In this study, self-management treatments were used to increase instances of appropriate social responding and to decrease behaviors that posed a barrier to personal, and academic success. A smartphone application was used to increase instances of appropriate eye contact and body language. Goal setting techniques were used to increase independence and decrease dependency on the participant's service companion animal. These methods were effective in achieving a normative level of social functioning in one college-age adult with an autism spectrum diagnosis.

Self-Management: Overcoming Barriers to Success

One of the largest concerns regarding young adults with an autism spectrum diagnosis (ASD) is social functioning which is defined by Blakely and Dziadosz (2007) as "normative behavior in a social situation. According to Vicker, individuals on the autism spectrum may avoid eye contact, have sensory issues, and become easily overwhelmed by sensory overload. They may "have difficulty attending to an auditory message if stressed, agitated, or highly stimulated (Vicker, 2009). Self-management has become a popular term for behavioral interventions implemented by the individual responsible for that behavior. (Lorig & Holman, 2003). "The designation of behaviors that are characteristic of adaption or appropriate social functioning are not imposed on clients by clinicians. Rather, clinical interventions are designed to help clients discover these behaviors for themselves." (Blakely & Dziadosz, 2007). Self-management is defined as "applying operant techniques to modify one's own behavior" (Malott, 1989). Self-management has been used for decades to curb undesirable behaviors, and increase appropriate behaviors. It has been used to increase physical activity, lower caloric intake, reduce procrastination, and even increase independence in individuals with an autism spectrum diagnosis. The purpose of this thesis, was to explore self-management techniques that could help me gain the skills necessary to be successful in graduate school, and future employment. Throughout my academic career, I have demonstrated excellence. My overall GPA has remained a solid 4.0. Despite that, I found myself lacking proficiency in social behaviors that are necessary for continued education and employment in the arena of behavioral psychology.

Symptoms of an autism diagnosis usually include poor social skills, including lack of eye gaze and verbal initiation. Characteristic deficits of social communication are accompanied by excessively repetitive behaviors, restricted interests, and insistence on sameness. (American

Psychiatric Association, 2013). These deficits can decrease the quality of life and create barriers to personal success. A study by Koegel et al. (1993) aimed to test the feasibility of modifying social behaviors in individuals with autism. They wanted to assess whether an intervention, focused on only one or two target behaviors, would simultaneously improve other social communicative behaviors without the need for additional treatment. This study taught participants to discriminate between appropriate and inappropriate behaviors and included two participants ages 13 and 16 with a diagnosis of autism who were considered to be "high-functioning". This study demonstrated success for both participants who were not only able to adopt self-management as a means to overcome behavioral challenges related to their diagnosis, but were also able to generalize the progress to other untreated social behaviors.

Eye contact and verbal initiation are both necessary skills to acquire in order to be successful in social situations such as graduate school and employment. Self-management has demonstrated success in teens with autism, giving the student the ability to control his own social interaction (Koegel et al., 1993). Both students in this study were able to acquire the skill set necessary to improve social responses through self-management. The skill acquisition generalized to other problem behaviors which increased the student's quality of life, and independence. If self-management can help teenagers gain prosocial behaviors, it should also work for adults who wish to reach the same outcome.

Disruptive behaviors and a lack of social skills reduce the quality of life for people on the autism spectrum. Another study by Koegel et al. (1992) aimed to assess the efficacy of self-management in increasing appropriate behavior, and decreasing disruptive behavior in children and young people with an autism spectrum diagnosis. The researchers implemented a self-management procedure in four students (boys aged 6-11) with an autism diagnosis using

multiple baseline design across settings and participants. They taught each participant to discriminate between an appropriate and inappropriate response, and record instances of appropriate responding with a wrist counter. The participants were then taught to self-reinforce with different rewards after accumulating a large number of points from their wrist counter. In this study, all four boys demonstrated rapid improvement in comparison to baseline data, all completing the study with a compliance rate of 90% or greater under the self-management program.

Stahmer et al. (1992) also found self-management to be effective in teaching children with autism to engage in instances of appropriate play in unsupervised environments using a self-management package:

> Three children with autism gained the skill set necessary to play appropriately with their peers in the absence of treatment providers. Appropriate play skills were generalized to new settings and skills were maintained at the one-month-follow-up for two of the three participants. In all three children, instances of self-stimulatory behaviors also decreased as appropriate play increased. Based on these results self-management has been shown to be beneficial in improving the quality of life for the target response and these results have generalized to other untreated behaviors. (p.447)

Another primary concern for caregivers of people with autism is a lack of autonomy which can result in burden of care. Severely disabled children require a large amount of time from their caregivers which decreases the child's independence, and quality of life (Pierce et al., 1994). Self-management has even demonstrated success with low-functioning children with autism. Pierce et al. (1994) used pictorial self-management to teach dail living skills to three low-functioning children with autism. Results showed that children with autism could successfully

use pictures to complete their activities of daily living in the absence of a treatment provider. These acquired skills generalized across tasks and settings, and maintained at follow-up.

Newman et al. 1995 used self-management to teach three teenagers with autism to independently follow their own schedule. Treatment providers gave the students tokens which they would move from their back pocket to their front pocket for independently changing activities when it was appropriate. The students could then exchange those tokens for various reinforcers or special activities when they obtained seven tokens in their front pocket. Some of the students correctly responded to 100% of transitional periods. As Sowers et al. mentioned, (as cited in Newman 1995) "It is important for students with developmental disabilities to be able to follow a schedule of activities, especially as they attempt to enter mainstream classrooms or the workforce." This study highlights the importance of teaching individuals to transition from one event to another, without the use of additional prompts.

Self-management was also used by Newman et al. (2000) to teach variability of play in three students (two boys and one girl) with autism. Students were given opportunities for varied responding in the play setting, and offered suggestions such as "what will the robot do next?" Or, "What other color will you use?" by the tutor. The tutor provided social praise and tokens for new or different responses that had not previously been emitted by other students or the tutor. Students were then taught to dispense their own tokens for varied responses. They could trade the tokens in at the end of the session for various reinforcers. This study highlights the importance of teaching individuals to vary responding within and across different activities.

Self-management provides independence and autonomy for people with or without an autism spectrum diagnosis. Gaining independence increases the quality of life by allowing the individual to participate in normative social functioning without the interference of caregivers.

Based on the results from various studies, self-management skills have been used to increase variable responding to contextually relevant stimuli, implement schedule following, and increase independence, across all ages and populations.

Methods

This intervention was a treatment package consisting of multiple components.

Intervention 1: Meetings with Dr. Malott

In Fall of 2014, I discovered that I had a passion for Behavioral Psychology. I enrolled in Psych 1400, Intro to Behavior Analysis, and for the first time, I met a team of educators who "knew their stuff." I was a train-wreck that first semester. I didn't have the skill-set at that point to succeed in university life. The first day of class, I showed up to class which was in a large auditorium, and had the biggest emotional breakdown of my academic career. I remember sitting in front of the pre-test crying and sobbing in the middle of 150 students. I don't recall for sure if I ever actually finished that test or not, but the incident introduced me to a group of people who helped me learn how to change my life. In September of 2014, I had the pleasure of meeting Jennifer Mrljak, a doctoral student in Dr. Malott's Behavior Analysis Training System (BATS) team. When I reflect on the first meeting that Jenna and I had, it was the first time that anyone had ever spoken to me like I wasn't a lost cause. I remember being amazed by the idea that my "labels" didn't have to define me. She spoke in clear, concise directives, answered questions, and helped brainstorm ways to help me be successful in the course, rather than find ways to enable my undesirable behavior by supporting unnecessary allowances. The skills she was helping me acquire for success in Psychology 1400 would soon begin to generalize to my other courses.

In the Spring of 2015, I had a new goal. I wanted experience implementing discrete-trial training (DTT) at WoodsEdge Learning Center doing DTT with children with autism. I set up an

appointment with Dr. Malott and asked him what behavioral deficits I still needed to work on to

be able to implement DTT "in the booth" at WoodsEdge. He referred me to WMU's psychology

clinic where a doctoral student named Brianna Forbis helped me map out my path to becoming

practicum-ready . Since my meeting with Dr. Malott in the Spring of 2014, he and I have met bi-

monthly to check in my progress.

By Spring of 2016 I started basic practicum at WoodsEdge Learning Center, and in Fall

2016 I began Intermediate practicum at KRESA West Campus. He and I still meet bi-monthly to

check-in on my new goal of joining the master's program in WMU. These meetings kept me

motivated to continue working towards my goals. It helped me stay accountable for the

behaviors I choose to engage in and reminded me what I was working towards.

Intervention 2: Decrease use of Sox

In March of 2015, I decided to be proactive in preparing myself for graduate school and

life after college. I decided to target behaviors that separated me from my peer group. Targeting

these behaviors would hopefully prevent social stigma that could decrease my chances of being

accepted into a graduate program. I began looking to my immediate environment for social cues

on what differentiated me from my peers. The most obvious difference that I noticed was that my

peers did not have a service animal with them during classes. For the past 5-years, I had been

taking my 3-lb Pomeranian "Sox," with me whenever I left my house. My hypothesis was that if

I could begin decreasing the use of "Sox," I would not be as visibly different from my academic

peer-group. I decided to take baseline data, and create monthly goals to decrease the number of

days that Sox spent on campus. From March 2015 to March 2016, I recorded data on what days

Sox accompanied me out of the house. In March of 2015, I was able to leave the house without

Sox 5 days in the month. By March of 2016, I was dog-free the entire month. We still go for

walks together, and take trips to the park, but Sox's days of service are over. He is now just a

family member who spends his days retired at home watching Animal Planet.

Intervention 3: Meetings with Brianna Forbis

In June of 2015, I began working one-on-one with Brianna Forbis From WMU's

psychology clinic. Brianna is the doctoral student who was assigned to my case for weekly 1-2

hour sessions. Our goal at that point was to manage emotional responses and prepare myself for

working at WoodsEdge Learning Center. She and I created a treatment plan to decrease

undesirable behaviors, and set social goals that would help me acquire the skill-set needed for

academic and professional success. Each week, we would set small, attainable socially related

goals for the following week such as speaking with/making eye-contact with checkout clerks, or

scheduling an outing with a peer. Our target treatment areas included increasing eye-contact,

decreasing self-stimulatory behaviors (such as fidgeting), and implementing TIP (Temperature,

Intense Exercise, Progressive Relaxation) skills to self-regulate emotional responses to

environmental stimuli such as intense smells, temperature, lighting or noises. Each time I became

dysregulated during a session, we would practice TIP skills until I self-regulated emotional

responses. Then we followed through with whatever objective we were working on prior to the

disruption. If, on a particular week, I was unable to complete our goals, we would practice those

deficits until they were a fluent part of my repertoire. In May of 2016, my advisors and I felt that

I was ready to enroll as a practicum student implementing discrete-trial training (DTT) with

children who qualify for services. I began the practicum program in May. In July 2016, my case

was re-assigned to another doctoral student for maintenance skills, and I am currently meeting

with the new graduate student semi-regularly (2-3 times per month for 45 minute sessions)

Intervention 4: Correction of behavioral deficits/overages

The following behaviors were targeted for modification with the intent of academic/professional readiness.

Eye contact. Instances of eye-contact were showing a huge deficit. I did not make eye-contact with anyone prior to this intervention. If I was facing another person, I would look "up," or "to the side" in an attempt to avoid direct eye contact.

Body Language. Prior to this intervention, my body language said "stay away." I typically kept my head down, shoulders slumped forward, and engaged in a lot of hand fidgeting/ rocking behaviors. I also had a tendency to close my eyes for long periods of time or cover my ears if I thought any aspect of my immediate environment was too aversive. This behavior could occur after instances of sounds, temperature, lighting, smells, or the presence of people. Self-Monitoring was implemented to target the previous two behaviors. The Motivator app from Apple's app store was used to self-monitor and check in on these behaviors. I began using this app while in session with Bri Forbis from WMU's psychology clinic. It was set to vibrate every 30 seconds in the beginning. Each time it would vibrate in session I would have to say the target out loud, "eye-contact, body language," and then check-in on where those two behaviors were at. If I was not engaging in eye contact or correct use of body language, it would be an opportunity to self-correct my gaze, or practice being mindful of what my hands and feet were doing at the time. We faded the motivator app from 30 seconds to 1 minute, then 2 minutes, and eventually 5 minutes until I was successfully engaging in appropriate instances of behavior each time the vibration began. I did not verbalize the target behavior outside of the clinic setting, I said the target covertly.

Crying. Crying was almost as common for me as breathing prior to this intervention. It was not symbolic of any one emotion, rather, a generalized response to any stimulus that wasn't

completely neutral. I was crying on average of 3-7 times per day in baseline, and engaging in multiple severe crying episodes per week that led to me eloping from class. Brianna offered suggestions on ways to avoid crying from unnecessary stimuli. If I was already crying, we would use TIP skills until the crying stopped. If I could catch the crying before it started, I would push my tongue firmly on the roof of my mouth, practice deep breathing, and then engage in TIP skills until the urge to cry had "passed." Crying was occurring as frequently as every day at least one time prior to intervention. During the summer of 2016, I had one crying episode, and in Fall of 2016 I had one crying episode. The instances of crying are currently infrequent enough where they are no longer a barrier to academic success. However, I am still working diligently to extinguish the response entirely.

Eloping from class. Eloping from class was occurring frequently prior to intervention. The behavior was occurring several times per week. After acquiring the use of TIP skills, I have not had to leave a class yet this fall 2016 semester.

Replacement behaviors. I have engaged in the use of less-obvious replacement behaviors to help get me through days that are "tougher." I found that chewing gum is a self-stimulatory behavior that is more socially appropriate than hand flapping or covering my eyes. On days that I know I am feeling overstimulated, I chew gum throughout the day instead of rocking, shaking my head, or fidgeting with my hands.

<div align="center">

Results

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The treatment package implemented for this self-management program was effective in helping me overcome the social barriers that inhibited my professional success. I would like to note that this project is a work in progress. I am not finished with my endeavor to replace undesirable behaviors with appropriate social responses. I have attained a normative level of

social functioning, but my goal is to continue maintenance skills for these interventions to further support my goals. Currently, the vast majority of people I meet would never know that I ever had an ASD diagnosis. Close friends and relatives can still recognize residual behaviors during lengthy visitation. For example, if I am in a lengthy conversation that I find aversive, I will close my eyes for extended periods of time during regular eye-blinks, or rub my eyes alot. I also, on occasion, get watery eyes if I don't understand what someone is asking me to do. While this is an improvement from the frequent crying behavior that used to occur, it is not complete elimination of the emotional response to aversive stimuli. Despite that, I have successfully acquired alternate responses that serve the same function as the inappropriate responses (such as stimming) with replacement behaviors. For example, during times where I would have previously engaged in rocking or extended eye-closing, I chew gum instead. I don't crawl under furniture or elope from aversive classroom settings anymore. I have discovered that some days are just harder than others. Since the end of my data collection process, I have had two crying episodes. The first episode took place six months post-intervention, followed by a second episode two months later. Both were in response to demands that I didn't know how to carry out. I have a behavioral pattern of becoming dysregulated during instance where I don't understand what is being asked of me. The data for all interventions displays a burst of spontaneous recovery in October of 2015 which I would like to refer to as a "trauma spike" (Malott). I experienced a traumatic life event that temporarily increased some previously extinguished responses, but there was a swift recovery time from that setback. I have found that extra variables such as trauma or illness threaten maintenance of the treatment package.

Discussion

For this intervention, motivation and self-management principles helped navigate my behavior towards a desirable level of functioning. If reinforcement was extrinsic, it would probably take much longer than a year to make the swift progress I made. I would describe the methods I used as being helpful for people who were extremely motivated to overcome their own behavioral rut.

I am also still working on interpreting the feelings and emotions of others. I could only comfortably feel and identify a small handful of emotions prior to this intervention. For example, I could accurately identify "happy" and "upset," but didn't recognize or understand loneliness or jealousy. I am still learning what "lonely" and "jealous" look and feel like, but I haven't been able to successfully incorporate or feel those emotions in my emotional repertoire.

I would also like to comment on one of my most "ah-hah!" moments during this intervention. In my methods section, I had mentioned one of the key players in my recovery team. Jennifer Mrljak was motivational and helpful throughout this journey of self-recovery. As previously noted, she and I met in the fall of 2014. We had fairly regular interactions throughout most of my academic career at WMU. In late spring of 2015, over a year after she and I met, we crossed paths on the third floor of Wood Hall and I realized that it was the first time I had ever seen her face. I knew she was tall and blonde, and her voice was very familiar by then, but I had never actually looked into her eyes. She said "hi," and I recognized the vague features and voice that I had previous experience with. I actually saw this person for the first time who had been such a key player in my academic journey. It was the first time that I can remember where a familiar smile of another human had reinforcing value. I ended up spending a great deal of time that week during my session with Bri trying to process the realization that I had missed out on so

many potential smiles from the people who have been anchors in my life. Smiles, then, became my first social reinforcer, and I attempt to return them when necessary to other people who engage in behavior that I find desirable.

Treatment packages inherently have confounding variables. One limitation is that you cannot discriminate which variables of the package are responsible for each change in behavior. There is no definitive way to know which intervention helped correct each behavioral deficit/overage. Another limitation is that I was highly motivated to overcome the behaviors that differentiated me from my peers. Had I lacked that motivation, the treatment package would probably not have been beneficial. I would also add, that maintenance is a key component to maintaining the level of functioning that I have achieved. I have to continue to participate in maintenance skills or I find lost progress. During school breaks for example, I don't practice these skills, and I have difficulty engaging in transitions and frequent eye contact during the start of the new semester.

I have not "recovered" from autism. I am not claiming to have discovered a miracle cure. What I have accomplished, is establishing an incredible support system of behavior specialists that helped me learn how to help myself get to where I want to be. Future directions of recovery include breaking pairings of stimuli in the environment that evoke emotional responding. I am not finished overcoming the barriers in my life that prevent me from being the best "Jazmyn," that I can be. I've sure come a long way, but I'm not finished writing the ending of my story yet.
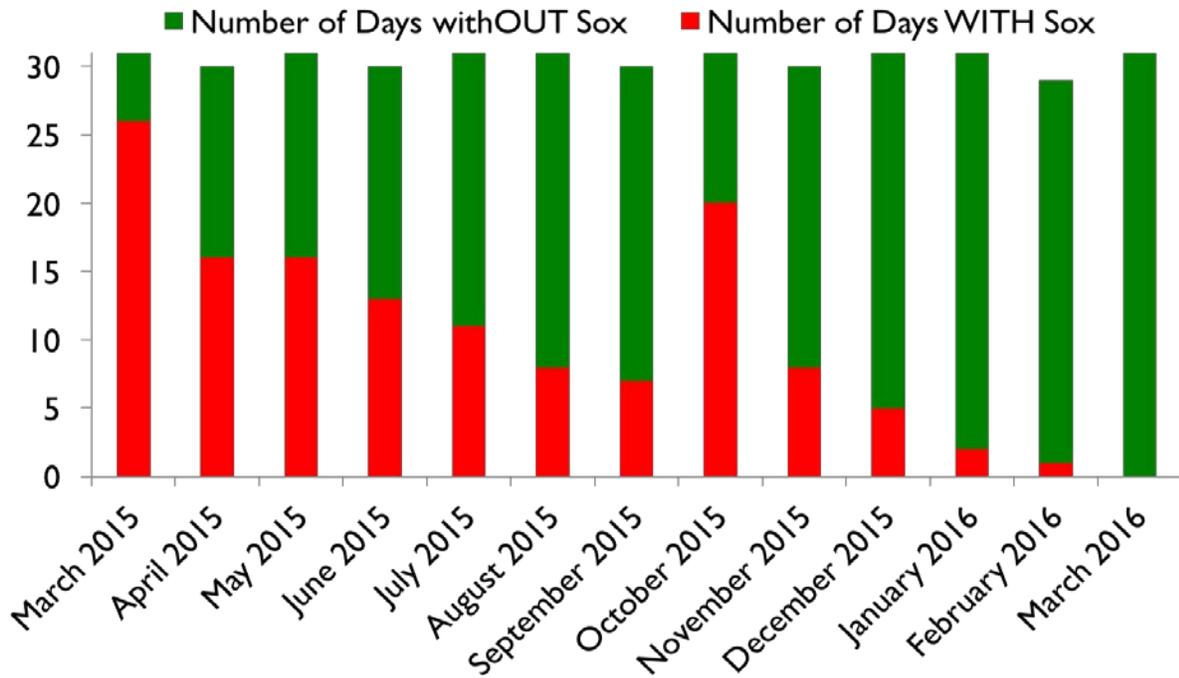
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Appendices

Appendix A

Appendix B