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Increasing Knowledge of Lack of Physical Activity Within the Special Needs Community

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Running Head: INCREASE KNOWLEDGE OF LACK OF PHYSICAL ACTIVITY SPECIAL
NEEDS

Increasing Knowledge of Lack of Physical Activity Within the Special Needs Community

Vanessa Garcia

Capstone Project for the Bachelor of Arts in Human Development and Family Studies

Introduction

Adolescents with special needs are often overlooked when it comes to instruction for and participation in physical activity due to their disabilities. This lack of knowledge and activity may contribute to weight gain and obesity as well as a lack of development of social and motor skills. Therefore, I created a five-day lesson on motor skill development and increasing physical activity to be conducted over a three-week period for special education students at Highland Elementary School in Seaside California.

Needs Statement

The lack of physical activity among individuals within the special needs community is something that often goes without enough attention. Specifically, individuals with Down syndrome and with Autism Spectrum Disorder (ASD) are not likely to get sufficient physical activity to remain healthy. Children with ASD do not have the same abilities like others without these disorders. The children with ASD lack social and behavior traits. Playing with the “normal” children is very difficult since they do not know how to translate vocal tones, facial expressions, and how to appropriately play/engage in a game and conversate. (Autism Society of America, 2002).

All Down syndrome individuals are born with a low set of muscle tone, which means that, throughout their whole life, they will have less muscle than those without disabilities (Gavin, 2015). Less muscle may mean they have limitations on their movement and ability to engage in physical activity. In addition, 25.5 percent of boys with Down syndrome were overweight and 4.2 percent were obese; when it came to the girls they were 32 percent were overweight and 5.1 percent obese.(Grens, 2012) Their tendency to be overweight may be related

to their level of inactivity. Along the lines of inactivity, the heart rates of these children tend to be lower than most others, and they are also known to reach their physical exhaustion level much faster (Grens, 2012). These medical conditions are major factors to the individuals lack of activity. Children with Autism tend to have below average motor skills (Sarris,2018). These children may struggle with everyday activities such as using a spoon, toothbrush or crayon, riding a bike,or fastening their clothes.(Sarris, 2018) Along with motor skills, they are also low in average for their speech. Children with autism tend to have poor social skills, which affects their involvement in exercise (Sarris, 2018). Individuals with Autism and Down syndrome often take a common steroid called anabolic, which tends to increase weight gain. Anabolic steroids are synthetic hormones that can boost the body's ability to produce muscle and prevent muscle breakdown. (Dowshen, 2017) Individuals with Autism and Down syndrome often take a commonsteriod called anabolic, this steroid tends to increase weight gain.

Physical activity (PA) is essential for promoting the growth, development, and health of children. Regular PA leads to reduced cardiovascular, diabetes, and hypertension risk factors among children and people with disabilities (Rimmer & Braddock, 2002). There are a number of benefits that one could receive by participating in physical activity. The three most effective benefits revolve around health, social contact and fun. With the increase in physical activity this will lead to lower level health risks. Children with down syndrome and autism tend to have high blood pressure and reach their exhaustion level quickly. With the physical activity, this will become less of a problem over time.

This capstone project is designed specifically for children with Down syndrome and Autism in the elementary school level. I have conducted a three-week interactive physical activity for these children at Highland Elementary.

Theory application

Bandura's social learning theory is focused around learning by observation and imitation. Bandura described how mediating processes occur between stimuli and responses and that behavior is learned from the environment through the process of observational learning (McLeod,2016). Students with special needs must be instructed and shown what to do in order to perform themselves, they can not just be told what to do, they need something or someone to follow along. As a part of observational learning, there is always a model according to Bandura, which is the individual that is being observed. I would be the model for the students while I show them how to use hands and legs in order to swing a bat and catch a ball. From personal experience with students with special needs it is important, but also considered a difficult task to keep kids engaged and entertained. There are four mediational processes that Bandura shares; they are attention, retention, reproduction, and motivation. Catching these student's attention must involve some type of music and movement, as I've been able to observe throughout my years of working with children with special needs. It is a proven fact that children with special needs could benefit and seem to become engaged when music is involved. Playing music helps them focus and enhance their creativity which all links back to brain development (Writes,2017). For retention, this will determine how much of what I demonstrate stays in their minds. Retention does not always stick the first time it is done, for example if I am teaching the student how to swing and they replicate it right after I perform it doesn't count for retention. The children

need to have some kind of memory of it in their heads that they could perform it later on on their own. Reproduction will be seen when the student's get their turn to try the activity and how well they perform. If the student's are able to perform the task that I just showed and even if their form is not all correct they will still have completed the reproduction stage. Lastly, motivation for these activities will be run by a reward at the end. When I demonstrate I will make sure to perform with enthusiasm, to make the kids engaged and see that it is a fun activity. As long as the student's tries and participates they will get the prize.

Consideration of Diversity

My project will be conducted at Highland Elementary in Seaside, California with the students with special needs. There are a total of 333 student's in the school and only 12 of them have special needs (SARC Highland Elementary, 19-20). Those 12 student's do not include students with english or mathematical disabilities. The 12 students included in the special needs category consist of Autism, Down syndrome, and Cerebral palsy. There will also be three staff members observing, and I will be asking them to take additional notes and pictures while I run the activity. This activity is built for children with special needs at this school and others are not included. Since not all of the children are verbal, verbal communication is not a requirement in order to participate. If I was teaching middle school aged students with special needs then I would involve more details and explanations on how to hold and bat and why. If it was high school aged student's I would include a simple quiz at the end of each day, talking about does and don'ts.

Learning Outcomes

I will be demonstrating basic baseball skills to the children with special needs at Highland Elementary over a three - week session.

By the end of this project the students will be able to:

1. Demonstrate accuracy in batting skills, while hitting a ball off a tee two out of three times.
2. Demonstrate catching skills reciprocally with peers two times.
3. Demonstrate how to properly place their feet for optimal balance and power.

Method

Day 1:

I first introduced myself to the students, I asked them to call me Ms. Vanessa. I then explained my reasoning for being there. I first asked the class if they wanted to learn a new game, which got them very excited and intrigued. I then brought out the objects that would be used within the game. I took about a total of 5 minutes, showing pictures of me using the bat, balls, and gloves myself. During this time, I also passed around the balls that they will be using so they could touch and feel them beforehand. I then collected the items, which they resisted. The next step was to go outside, they all lined up and then proceeded to walk outside. Once outside I asked one of the teachers to help me with demonstrating how to throw and catch a ball. We performed two different styles of throwing. We started off with underhand, since that is a bit simpler. We then moved onto throwing overhand. The catching demonstration was the easiest to get the children to understand and perform. Next, I split the children up so they each had a partner. They spent a total of 10 minutes throwing underhand and a total of 10 minutes throwing overhand. I then did a catching game. The children were partnered up once again and each

partner started five feet apart and threw it, each throw (if caught), they would move back two steps. The winning group got lollipops. I concluded with a quick overview on how simple and fun it was to be active for just 45 minutes and how this should be implemented much more.

Day 2:

Today, I started with introducing my name again and then discussing what today's activities will involve. This involved a bat, ball, and tee. They then lined up to go outside. I had already set up the activity outside, so the children didn't have to stand around any longer. I then showed the students the proper way to hold a bat and how to have their feet angled to the tee. Next, I did a simple swing off of the tee. I had four different tees set up so there were three kids at each tee. I brought a foam and plastic bat for them to use, for safety reasons. I had a teacher at each tee to monitor some safety. I made sure to tell the children to be at least three feet away from the student with the bat. The children took three swings and then switched with the next person. This took a total of about 15 minutes. After this, they played a game to end it. The students were split into two groups. In order to win the game, the team had to hit more balls off the tee than the other. The winning group all got a piece of candy. Once back inside the classroom, I decided to surprise the kids with a piece of candy for each of them. I concluded that day with a fun, interactive video about hitting a ball off the tee (SKLZ,2013).

Day 3:

For the last day, I made sure to briefly introduce myself again. I then played a quick nutritional video (Eat Happy project,2016) about the good and bad food choices. I then asked three simple true or false questions on what food is better for the body. After this, I showed the kids an interactive video on the simple game of tee-ball. For this final day, I will incorporate

throwing, catching, hitting off the tee and running the bases; this game will take about 25 minutes. Once all lined up, they will proceed to go outside. I will first demonstrate how to run around the bases and which direction to go. I will then split the students into two teams. One team will hit the balls off the tee and the others will try to catch and stop the ball. Since they will not be playing with real rules, each team gets to be a winner; and they will all have a healthy gummy snack. I ended today by bringing everyone back inside and asking a quick simple and verbal survey about physical activity and if they had fun. *See Appendix A for verbal survey.*

Results

Not completed due to COVID-19

Discussion

Not completed due to COVID-19

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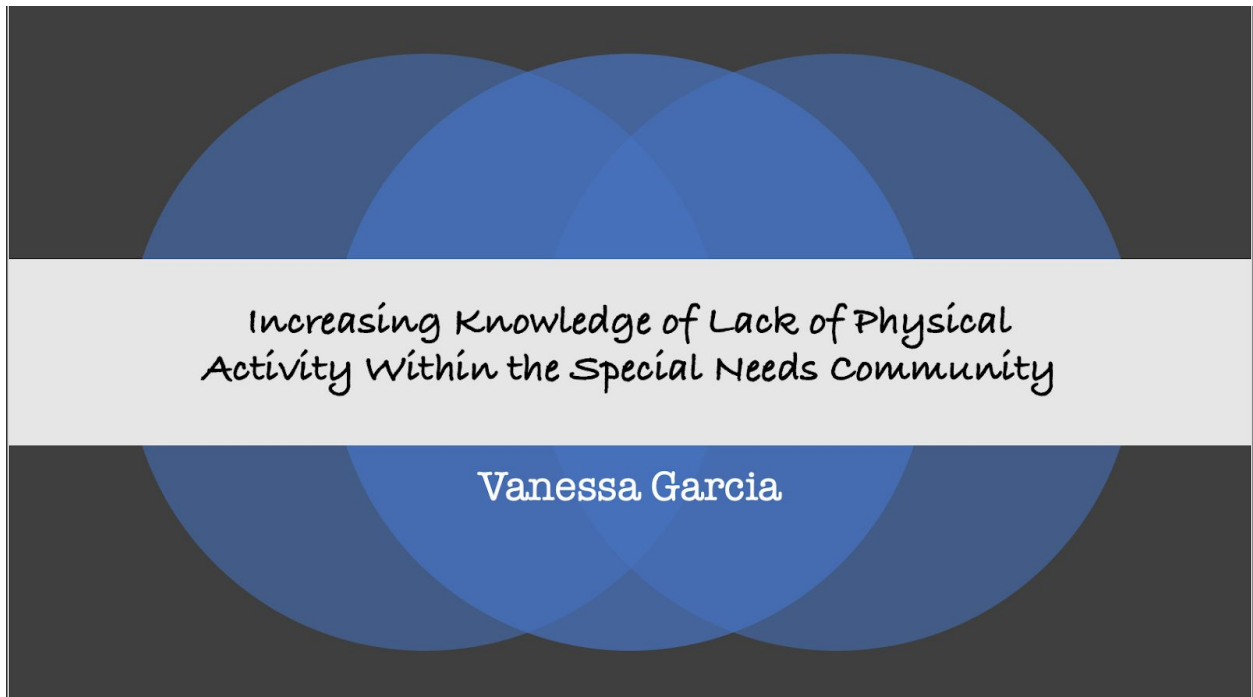
Appendix A

Verbal Survey

1. Raise your hand if you think you know how to swing a bat the right way.
2. Raise your hand if you think you can throw the ball correctly.
3. Raise your hand if you liked learning baseball.
4. Raise your hand if you want to learn more.
5. Raise your hand if you want to play baseball outside more often.
6. Raise your hand if you think chips are better for your body.
7. Raise your hand if you think fruit is better for your body.

Appendix B

Capstone Presentation



Needs
Statement

Adolescents with special needs are often overlooked when it comes to instruction for and participation in physical activity due to their disabilities.

Theory/Development

- Banduras Social Learning Theory
- Focused around learning by observation and imitation.
- Classical conditioning
- Operant conditioning

*Theory/development
cont.*



Mediating processes occur between stimuli & responses.



Behavior is learned from the environment through the process of observational learning.

Theory/development cont.



4 MEDITATIONAL
PROCESSES



ATTENTION



RETENTION



REPRODUCTION

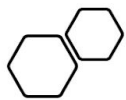


MOTIVATION

what did
you do?

- For my capstone I planned to perform a three-week interactive physical activity for these children at Highland Elementary.

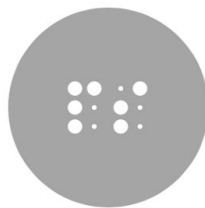
- flyer sent home with kids to parents
- 1 hour activity
- hitting
- throwing
- verbal survey on activity



what did you do? cont.



12 STUDENTS



-AUTISM, DOWN SYNDROME,
AND CEREBRAL PALSY



3 TEACHER AIDS

*Learning
Outcomes*

- demonstrate accuracy in batting skills, while hitting a ball off a tee two out of three times.
- demonstrate catching skills reciprocally with peers two times.
- demonstrate how to properly place their feet for optimal balance and power.



Results

(Not completed due to COVID-19).

Discussion

(Not completed due to COVID-19).



Thank you

• Questions?