Methodological Plan

Name

Institution Affiliation

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Potential Participants

Each of the participants that were in the experimental groups were diagnosed with autism in alignment with the benchmarks of the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders). Multiple investigations involved a control group. Jointly, 120 people with autism took part in the experiment. Age and gender was documented for 100 participants: 45 were males and 55 female, and the average age was 15 years. The distribution of gender harmonized with the male/female ration accounted for the autistic individuals.

Sampling Procedures

Sampling implies the approach utilized in selecting a specified number of persons from a populace (Grand Canyon University, 2017). Participants in this research study were not randomly chosen. Each participant was selected from a small population of 120 residents from the State of Maryland that had been diagnosed with autism. The following criterion was used in the selection of participants:

I. The participant had the physical ability to comply with the equipment and jogging exercises that were part of the study.

II. The participant was familiar with at least one individual that was involved in the study. This is because people with autism prefer shying away from new people and situations and opt for routines. A familiar personality that participated in the research was expected to decrease anxiety within the participants.

III. The participant had presented his/her authorized physical activity readiness questionnaire and parental consent form.

IV. The sample size of 120 participants was smaller than required. Aspects that impacted the number included the resources available and the time to finalize the study and time available within the subjects' schedules.

V. The participant commonly exhibited repetitive body movements that could be easily documented in the observation period.

Potential research approach. At the start of every session duration where observation is supposed to take place, the identified participant can be approached with pictorial guides. This is in the expectation that they would be aware that they were about to be studied and about to be involved in a specified duration in a jogging exercise on a cycle ergometer (recumbent bicycle). The researcher will then continue to examine the participant from a jointly suitable place in the room (jointly appropriate for the researcher and the participant), after initiating a five-minute countdown timer. To the end of the observation session, the researcher will document tally points in the most tightly fitting illustrative behavioral squares on a designed repetitive behavior recording sheet.

Data collection methods. Observation is a procedure where there is systematic documenting, deducing and analyzing, employing planned and systemic processes (Young, 2016). Structured observation will be chosen for this test, to ensure independent and accurate assessment of observable human behavior. Observations result in the generation of quantitative data centered on pre-particular recognizable behaviors and interaction patterns (Kasner, Reid, & MacDonald, 2012). There are five kinds of involvement by the observer trying to collect data while not directing any behaviors. In these five categories, it is better to implement the passive participation approach where the observer is present but does not interfere with the participants.

Because of the characteristics of the observation setting, at particular stages of observation, there will be a reluctant utilization of moderate participation, trying to stabilize involvement and observation a few but not every activity (Sowa & Meulenbroek, 2012). Consistent recording will be applied until the end of the observation. Procedures that are commonly used in approximating proportions of time behaviors will not be employed. Observation bias will be restricted to having only one observer.

Constrictions of observational data collection might incorporate the chance that observations might have been sorted or distorted by the observer, participants might have unintentionally or deliberately altered their behaviours because of the awareness that they were being observed, and observation consumed a significant amount of time and some challenges might have been experienced accurately documenting pre-chosen repetitive behaviours (Kern, Koegel, & Dunlap, 1984).

Alignment between proposed data collection method and research questions. The suggested data collection method (observation) will provide actual data on the effects of the exercise on the adolescents. The behavior of the participants after the exercise will offer direct solutions to the research questions. The most suitable track for this study is quantitative research as it attempts to test a theory and finally reinforce or reject it (McLeod, 2017).

References

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