

THE IMPACT OF EXERCISE TO OVERCOME AGGRESSION AMONG DOWN SYNDROME STUDENTS

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ABSTRACT:

Aggression and its behavioral problem is one of public disruption and social chronic problem. The purpose of this research was determining the impact of exercise on decreasing aggression in Down syndrome student. To explore the obstacles student with Down syndrome experience during physical activities the researcher has designed intervention programs and opportunities for the promotion of life-long physical activities for ignored population of students. To prove that the field of physical education can do work for betterment of special population.

This research was experimental. The sample was composed of 30 students that selected through simple random sampling and then it's divided into two group's experimental group and others in control group. Pre and post experiment interviews has been recorded from parents and instructor of Down syndrome students. This was Qualitative Data Analysis, Theme were generated after data transcription 08 weeks Exercise sessions has conducted per week (90 minute), the end of intervention aggression both instrumental and hostile decreased. There was significant difference between two groups after intervention, Research finding showed that exercise was effective on decreasing of aggression in Down syndrome students. It is concluded that the exercise is help full for controlling aggression among Down syndrome students. Exercises are highly recommended for the individual having difficulties on managing aggression among Down syndrome students.

Keywords: Physical Activity (P.A), Down Syndrome (D.S)

INTRODUCTION:

The purpose of this study to managing or overcome aggression in down syndrome students through the medium of exercise and physical education .The physical education or exercise

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in integral part of in all fields of life.

Due to mood disorders many time Down syndrome become aggressive and hyper .The researcher wants to prove workout one of effective tool to dealing with these special population group. The large amount of down syndrome community is ignored in Pakistan, through special children institutes the new area of interest will be developing for down syndrome through this plate form it might be possible the Pakistani down syndrome community will participate in Paralympics in large amount.

Down syndrome is genetically disorder through which individual is intellectually weak. Basically it's a disorder which is faced by individual due to imbalanced chromosomes division. According to the report of Hub of disease control and prevention American national Down syndrome society give detail that approximately six hundred and ninety children born along this disorder. The one mutual thing between these children they are having face similarities with each other.

The periodical uses of exercise in each week for students with Down syndrome have the prominent physical and psychological advantages. The each Down syndrome student having eating disorder the excess amount of food and imbalanced eating pattern makes them sluggish and hyper active with appropriate changes and variations the most measureable genetic condition connected with intellectual disabilities is Down syndrome, therefore the sets of exercise give a lot of psychological benefits to these DS students (Winnick, 2017).The down syndrome person having the defect in three chromosomes These abnormalities are further categorized into trisomy 21 (no disjunction), translocation or mosaicism. Usually above 90 % cases faced the defect of trisomy according to the report of Down syndrome community. All of the Down syndrome community faced bodily and intellectual disability due to chromosomes defects these individual faced physical, psychological and growth issues for

minor improvement the person should adopt healthy life style and adopt physical exercise on weekly basis (Winick, 2017).

The down syndrome students has functional and structural disorder due to these issues they neglected the healthy routine the physical activities give remake able primarily benefits The exercise sessions are well suggestible for Down syndrome community, but it should be noted that physical activities will not only do betterment for weight lose but they also have psychological benefits. The PA programs are giving prominent psychological advantages in children Down syndrome. Due to participation in group activities there are sociological. Positive interactions has risen. The one more additional positive impact has observed by researcher rehabilitation from posture defects due to PA (Lourdes Gutiérrez-Vilahú 1 & Guiterrez, 2016).

- The Down syndrome students should adopt physical activity for beginner's short sessions which consist on five minutes to ten minutes for getting long lasting physical and psychological benefits gradually increase the intensity and time duration.
- The adult Down syndrome with long-lasting health issues such as cardio disease, imbalance glucose level or excessive weight to getting rid from these problems and disease the proper instruction from instructor required. The male whom belongs from over age 40 and women's over age 50 who plan to start a new vigorous exercise session should consult a diploma holder gym instructor to be sure they do not have major health issues. After taking regular session from expert it's really helpful to control on emotions. (Lotan, 2017).

The down syndrome undergraduates mostly ignored population in our country Usually parents and lecturers are less interested to see them as players although physical activities are helpful for overcome their mood condition. The researcher want to give a complete sets of exercise to these children for managing

aggression many time down syndrome express aggression on their peers and siblings .During exercise large amount energy used and these students will be less aggressive.

This research will be providing players for upcoming special children competition. The Pakistani down syndrome children have abilities to participate in Paralympics. Physical active students are more happy and less aggressive rather than non-active.

There is significant relationship to overcome aggression through exercise and for managing psychological problems.

LITERATURE REVIEW:

The researcher has been identifying the impact of exercise to overcome aggression among down syndrome students .The down syndrome are community which is mostly recognizable due to genetic condition and individual has some imbalance set of chromosomes in addition that particular person is also facing some mental and physical disorders .There are number of evidence has observed by researcher the down syndrome students are mostly facing behavioral issues due to these problems the mostly like sit and less active. The aggression is clinically diagnosed among Down syndrome but there are different stages of aggression mild, moderate and savior.

According to researcher the PA play an important role to making betterment in different psychological or mental component like memory, Cognitive skills, controlling on emotions among patients the researcher selected sixty two adults t, they did moderate intensity physical activates include running, gymnastic and walking The duration of conduction of this research was seven months The sixty DS people selected as control group and 62 DS individuals selected as experimental group .The PA session were conducting 4 days in a week and 30 min Cycling session also added for getting more positive result. The result proven memory score improved among the experimental group DS as compare to those control group persons Hence it proven that the set of exercises and

PA may improve psychological well-being and make betterment on behavior. (Lauren T. Ptomey, 2019).

The effect of cycling therapy give multiple benefits for getting relief from depression, stress, anxiety and improves the cognitive skills. The one of more identify able effect of cycling or aerobic activities it risen the self-efficacy among the students . The researcher selected DS female Students to measure the outcomes of healthy activities among them .During assisted cycling therapy high quality motorize cycles used. The participants must be attending ACT five days in a week. For making more attention towards PA electronic devices fixed in front of each cyclist. Adaptive behavior scale II used by researcher to measure the change on participants .The result of this study shows that those participant whom did Active cycling therapy found positive impact towards managing aggression and coping on anxiety attacks. Exclusive criteria of this result research project those individual whom had savior symptoms of anxiety disorder were not able to participate in this project The ACT is one of nominated therapy to getting relief from minor psychological problems. (S. D. R. Ringenbach, 2019).

The literature proven that people with special needs required partial set of exercises , the people whom required enhancement of self- confidence and self-poseessions required active life style. There were mental retired and DS community selected by researcher. The aim of this research was to check effect of set of exercises and PA among People with Down syndrome. Community of DS and Mental retired on primarilybasis get number of positive outcomes of PA .For getting more attention towards PA the researcher add up dance steps and music on background there were multiple suggestions from instructor ofspecial children about music and aerobic steps for attraction of special children's. The program not only enhances agility, balance but also given moreself-confidence. Two wheels bicycle competition had organized on weekly basis. The Eight weeks PA program exposed optimistic improvement onphysical and mental skills. (Funk, 2017)

The Down syndrome students are able to perform physical activity partially due to structural and functional problems. The sports and games given countable advantages in all field of life. The conduction of Paralympics is biggest example of this. This study examine participants of Paralympic have many benefits after participation in game camps. The pre and post interviews has taken from parents and instructor of DS and Handicapped students to investigate whether PA is helping to managing mood. Disorders and checking social impact on these individuals. There is prominent positive relationship between physical activities and emotional stability. The positive impact of physical activities and sports are non-ignorable and its proven active life style is providing number of benefits to whole fields including special children. The conduction of special children sports program must be promoting more on national and international level. (Giovanni Fiorilli, 2016)

Dancing sessions have not only enhanced body flexibility, muscles elasticity, force balance, agility, enhancement of motivation and resolving mental abstraction. It's have hidden bodily and psychological well-being. Special population faced functional and bodily weakness. The literature has supported role of exercise or rhythmic movements to overcome physical and mental issues. The dancing session implementations for more than eight weeks given nominated betterment in motor skills. The researcher observed two or more variables and study design to investigate effect of locomotion exercises, Dance and gymnastic on Down syndrome. The selected sample size were down syndrome students from the age group teenagers. The selected DS children clinically emotionally unstable, for convincing DS children is one of mile stone with the support of relevant institution instructor study has conducted successfully. Total eight Down syndrome children were selected. The total duration of this experiment four months. The dance steps and exercise translated by physical education instructor and through modeling techniques the participant follow the steps or movement patterns. Four months

fitness testing protocol applied and for measuring the mental improvement the close ended questionnaire were distributing to those whom were connected to participants on regular basis .The implementation of research work applied on teenager group. Additionally sound system fixed for getting more attention of teenager down syndrome. The result shows dancing movement and gymnastic given a lot of improvement on physical and psychological skills. The implementation of exercise and dance activities gives positive effect on special children's. Hence proven disable and special children should adopt set of exercise. (Becker & Dusing 2014).

Dance for Down syndrome has many benefits; however, there is little research on this topic. Down syndrome is the common genetic condition, causing in mental, physical, and social impairments. There is study to suggest that dance may be a useful activity for people with Down syndrome; however, there is tiny study to substantiate the effects of participating in a community dance class. The present study developed the theoretical orientation of phenomenology to explore the lived experience of a 22-year-old man with Down syndrome as he contributed in a community dance class through his view, as well as that of his father and dance coach. The dance program was inclusive for teenagers and young adults with special needs.

Data collection contained within background surveys, interviews, and observation of the dance class, member checks, and field notes. Examination of the data showed four salient themes although only the theme of Luke at Dance will be discussed. Overall, all participants contracted that the experience had social, physical, and emotional benefits. Specifically, the dance class provided with the opportunity to expand his social circle, engages him cognitively, and become physically active. The adapted physical activities are influencing a teenager with Down syndrome's functional movement ability, balance and coordination, strength and agility Dance program is also an option

for children with Down syndrome as a way of improving their abilities in the psychological, cognitive and affective domains. According to the scholar Dancing is a PA which involves expressionistic quality, mind-body awareness and can be done in a physical education setting or in the country. Dancing is a form of physical activity that can be performed by children with Down syndrome and they will get long lasting psychical benefits. (Nicole Luymes, Pamela J Bryden Moraru, Hodorca and Vasilescu's, 2015)

Instrumental and hostile Aggression:

Hostility is certifiably not a straightforward build to quantify. Numerous sorts of conduct comprise animosity like "verbal, physical, social, instrumental and hostile", and these practices can work in an unexpected way. One common justification taking part in animosity is to get an ideal result; such brutality is known as proactive or "cold hostility" (Herridge, 2004). Incited, frequently incautious, outrage without thought about own benefit is known as responsive, or "hot hostility" (Farmer, 2008). These subtypes of hostility in DS youngsters were first identified by Evade and Coie (1987). The presence in young people of responsive and proactive hostility has been reliably displayed in the writing (Coie, 1987, Hinshaw and Lee, 2003), while the legitimacy of these thoughts in kids with DS still can't seem to be completely resolved. Receptive and proactive subtypes are thought to react in an alternate manner to treatment (Kempes et al., 2005; Smithmyer et al., 2000), so inability to "accurately match a treatment to the subtype of conduct may contrarily influence the viability of the treatment". Hence, if the develops exist in youngsters with DS, the expertise to survey them will have significant ramifications for treatment research.

Rancher, (2009) fostered the Children's Scale of Hostility and instrumental Aggression: Reactive/Proactive (C-SHARP) trying to discourse the requirement for top to bottom investigation of forceful conduct in kids with DS. As well as estimating a few unique types of animosity, the scale permits the rater to sort the

youngster's conduct as either responsive or proactive as reported by Chapman, (2000). The scale was inferred by exploratory factor assessment of appraisals on an example of 365 youngsters with DS and different children with other disabilities for children and adolescents. Factor structure was sound concerning fit and internal consistency, and general validity of the Scale was kept up with as announced by Farmer and Aman, (2009). In this part, coordinate unwavering quality and united legitimacy for the C-SHARP is examined. To analyze the reliability of the C- SHARP, assessments were made between bunches dependent on (a) DSM-IV analysis and (b) utilization of conduct interventions (Young, 2003). It was conjectured that the accompanying analytic gatherings would get intricate scores on all subscales of the C- SHARP: (a) consideration shortfall / hyperactivity problem (ADHD), (b) conduct disorder (CD), and (c) oppositional-rebellious turmoil (ODD). Every one of these conclusions is known to be clearly identified with forceful conduct. Adapting methodologies expected PA to defeat hostility as revealed by M. P. Buman, (2019).

Youngsters with DS likewise experience a postponement in active achievements and actual demonstrating, which can require exercise based recuperation to get gross motorabilities and carry on with a genuinely vigorous life as reported by Shields, Dodd and Abblitt, (2009). "The objective of non- intrusive treatment is to limit the improvement of the compensatory development designs that kids with DS are inclined to create" (Winders, 2001). Exercise based recuperation meetings nonetheless, are not generally seen as pleasant by DS kids and require different kinds of value, fun preparing programs/intercessions that give similar advantages as non-intrusive treatment (Castro, 2002). The goal is to upgrade and work on the youngster's actual capacities; Psychological limits and likely change into the general public (Shields, 2010).

Taking a gander (Graham, 2003) at the obstacles and facilitators of program improvement and mediations including strength preparing, dance / development, equilibrium, running,

and hopping/jumping jacks and cycling preparing programs fill in as apparatuses to assist with upgrading utilitarian development and controlling hostility for youngsters with DS (Hudley, 2007). These youngsters with DS are in danger of other wellbeing concerns; subsequently, ordinary PA is required as suggested by Shields et al., (2009). These elective mediations / programs can possibly work on actual abilities, help socialization, display medical advantages and offer a pathway that leads towards a superior personal satisfaction for youngsters with DS as reported by Waldman, (2006). It was also reported by Waldman that the focal point of this part is likewise on research on different developmental programs/intercessions for youngsters with DS and looking at their effectiveness and possibility for execution (Wellman, 2002).

These previous investigations concluded whether each program/intercession has dynamic ascribes in aiding a comprehensive climate that obliges the formative contrasts of kids with DS and supports early insight to PA and investigating different preparing programs/mediations that are successful for kids with DS, option in contrast to conventional active recuperation give proposals to PA trained professionals, guardians and teachers in a school as well as common setting (McClure, 2004). The reason for these investigations to appraise diverse examination based PA mediations/programs for kids with DS and like the exceptional qualities of each. There are a few distinctive mediation/programs that can target youngsters with DS to improve their PA level or assist with accomplishing motor and mental expertise designs for usefulness (Nasby, 2008). Examination based mediation / programs incorporate cycling, running, development and dance, strength and deftness and equilibrium preparing. Hindrances and facilitators of intercession / programs are likewise audited with regard for achievability, replication and viewpoints of youngster and parent. An outline of various PA projects will be analyzed in this amalgamation to decide the best mediations for kids with DS (Medela, 2019).

While people with DS do by and large have some actual cutoff points, they can, generally, take part in many types of active work that people without the incapacity can. Along these lines, their suggested measure of actual work is likewise equivalent to those with no inability. The PA guidelines for Americans (2008) suggests somewhere around 70 minutes of moderate force oxygen consuming (OCA) and anaerobic movement ought to be finished every week, if the individual is capable (Nasby, 2008). In the event that they perform energetic power vigorous action, just 75 minutes are required each week.

Whenever wanted, a blend of the moderate and enthusiastic powers can be finished. These ought to be done in episodes of somewhere around 10 minutes spread for the duration of the day to acquire the greatest benefit both physical and psychological. There is medical advantages related with actual work (Grumet, 2004).

The level of improvement is corresponding to the volume of action, on the off chance that an individual can't securely finish the suggested measure of activity, it is prescribed to do whatever is tolerable (Crick, 2006). It is likewise important to take part in muscle fortifying activities essentially double seven days. These activities ought to include all significant muscle gatherings. Something significant to recall prior to taking part in any active work, be that as it may, is to counsel a doctor before start the PA movement has given different advantages to DS Students (DHSS, 2008).

Physical Activity to overcome mental disease:

As per the Chelsea B. Spurgeon the PA positively affects both inward and outside body, DS youngsters are confronting numerous mental illnesses unfriendly and instrumental hostility is one of normal issue looked by families and companion whom are living and showing these local area people the proactive tasks are assisting with beating despondency, stoutness, cardiorespiratory and animosity (Gerstein, 2006).

According to Bartels, (2012) while it is worthy for people to follow similar PA rules, there are a few safeguards that ought to be estimated. People ought to talk with their primary care physician prior to beginning an actual work program. This ought to be done to ensure the additional action won't hurt the participant's. The individual additionally needs to see what any meds they are taking may mean for the body when doing exercise. This is another explanation talk with a specialist (Boutelle, 2010). Oversight is additionally a smart thought, particularly when first arrangement. This will assist with forestalling undesirable wounds or unfavorable occasions. Joining social treatment and impetus inspiration, like a prize framework or progress diagram, will assist with energizing people about the activity, and they will be bound to cling to the program. In particular, the individual should start with light, torment free oxygen consuming and strength-building exercises that can be loved.

It's anything but a smart thought to consider a couple of things when strength drills. These activities ought to be done under consistent perception to guarantee the right structure is being utilized. This, as well, will assist with forestalling injury. Name the apparatuses with pictures. This will make it simpler for the person to recollect how to appropriately utilize the device. Visual coaching will in general work better compared to verbal guidance with this segment, so take a stab at showing people the best way to perform active work as opposed to advising them. Ultimately, instruct them to high their own data weight, reps, and sets-to foster long haul responsibility and sensations of autonomy. The point ought to be to augment the strength in their huge muscle gatherings and decline enthusiastic issues. If they can see the improvement they have made, they will be more conceivable to proceed with the everyday practice (As with anybody, any sort of actual work, regardless of how large or little, will recuperate generally speaking wellbeing, regardless of whether by a modest quantity. Both the heart exercises and muscle fortifying exercises will give advantages to the DS member. An examination done by Rammer et al (2004) gives indication of this advantage.

Throughout the span of 12 weeks, 30 grown-ups with DS partook in a preparation program that comprised of 20 minutes of cardiovascular exercise and 15 minutes of solidarity practice performed two days of the week. Toward the finish of the program, the people in the exploratory gathering showed considerable advancement in cardiovascular wellness, solid strength, perseverance and improvement in conduct (less sadness, uneasiness and animosity) has seen when contrasted with the benchmark group, which had not contributed in any activity .It is conceivable that if this examination endured longer than 12 weeks, the increases may have been significantly more prominent for the heart, lungs, and mental Fitness In general, these people have lower by and large wellness levels than their companions without DS. A few examination papers recommend their most extreme pulses are roughly 10% lower than those of people with scholarly insufficiencies other than DS. Preparing programs do work on cardiovascular wellness, yet this generally occurs after a more extended instructional courses enduring four to ten months. Lower top oxygen utilization, utilitarian high-impact harm, top circulating and pulse, and respiratory trade proportion could be a portion of the variables responsible for lower wellness levels Many people with DS are overweight or stout. People who decide to take an interest in active work will probably adjust their weight status by diminishing fat mass and expanding fit weight. This could assist with working on their general wellbeing, just as decline the probability of creating other cardiovascular illness hazard elements and medical issues, for example, diabetes Physical action, however, doesn't need to be organized or occur in a rec center. Exercises of everyday living and relaxation time exercises like working in the yard or taking a short walk could work on the person's cardiovascular and respiratory wellness and by and large wellbeing. An audit done by Dodd and Shields (2005) demonstrated only that. Subsequent to checking on numerous investigations including people with and without DS, they closed actual wellness in those with DS could be worked on through recommended and endorsed cardiovascular workout regimes.

This end was reached subsequent to exploring numerous investigations that date back to 2004 (Dodd, 2005). Immature respiratory and cardiovascular frameworks are regularly an issue found in those with DS. Activities like strolling, running, and cycling on a fixed bicycle can assist with working on the wellness of both Equilibrium, in general strength, and muscle wellness can improve with the assistance of muscle-fortifying activities. With this expanded cardiorespiratory wellness and strength comes the capacity to more readily do regular jobs. These are regularly hard for people with DS to finish, yet things like strolling to class and conveying books or staple goods become simpler at strength and generally wellness and perseverance increments. This will help confidence and certainty, and keeping in mind that nor is straightforwardly identified with the person's wellbeing, both are a significant piece of carrying on with a quality life. Obstructions might sound similarly as simple for people with DS to take an interest in actual work as it accomplishes for those without the inability, yet it truly isn't. There are a few hindrances that can upset both cooperation and progress. Other medical issues, like heftiness and diabetes, immensely affect whether it is even protected to take part in actual work. Since numerous people with DS are overweight, they might be accustomed to carrying on with stationary ways of life, and changing their practices could require some exertion, as is normal with generally inactive, large people. Muscle hypo constitution is an issue for more youthful people with DS. This normally improves as the individual gets more established, yet muscle-reinforcing activities can help too. This does, in any case, restrict what should be possible weight-wise. The individual should be mindful so as not to overstretch any of their muscles, which is the thing that can occur because of hypo tonicity. Overstretching muscles can come about because of attempting to lift an excessive amount of weight too early. Joint hypermobility is another normal issue in DS. This expands the danger of separating a joint, for example, a shoulder or hip, so a doctor ought to be counseled prior to starting any activity to decide the wellbeing of the proposed action program.

Report

These attributes that sway the conduct collection mirror an extraordinary example of qualities and shortcomings clear in people with DS and have been portrayed as an unmistakable group of practices named a social aggregate. Dykens (1995) characterized social aggregate as "the increased likelihood or probability that individuals with a given condition will display certain conduct and formative sequela comparative with those without the disorder" This doesn't imply that all kids with DS will show the entirety of the trademark practices; rather, there will be in an improved probability.

The early creating evasion conduct revealed by Wish craftsmanship and partners alongside reports of other testing conduct is accepted to be important for this aggregate in little youngsters with DS (Fidler, 2005). Along these lines, it is of most extreme significance to intercede on the practices normal for this social aggregate from the beginning so they don't bring about articulated deficiencies inside the youngster's later turn of events.

Testing conduct not just blocks people with Down disorder from learning openings inside their current circumstance, yet additionally keeps them from getting to more ordinary instructive and local area conditions as they approach preschool and young. At the point when position in an overall instruction or local area setting happens, testing conduct is probably going to be the reason for expulsion from these settings. This is especially heartbreaking, as broad training settings have been found to prompt more sure results for kids with DS (Buckley, Bird, Sacks and Archer, 2002; Cunningham, 1998). Accordingly, interventionists who are probably going to experience conduct that might be related with later adverse results should be ready to address such conduct so kids with DS profit with learning openings and are less inclined to be blocked from general training/local area positions.

Luckily, the technique of applied conduct examination, exhibited viable across a wide scope of populaces, with different

incapacities, can be used to address the special qualities of testing conduct showed by kids with DS. With a large number of studies exhibiting the positive effect of intercessions dependent on the standards of conduct investigation on the existences of people with handicaps, the two specialists and experts have since quite a while ago depended on this logical writing to address the difficult conduct of people with formative inabilities. As of late, the innovation of positive behavior support (Carr et al., 2002) has arisen as a use of the standards of conduct examination to address ability collections, yet in addition update people's living surroundings determined to accomplish upgraded personal satisfaction and diminishes in issue conduct.

Ringenbach (2016) found that "cycling treatment might be a promising activity methodology for individuals with DS, which thus could mean a superior personal satisfaction and other related mental results. This quantitative examination involved 20 (10 male and 10 female) members with DS. During nine "long stretches" of a cycling and running on treadmill treatment mediation, members were estimated utilizing the "Peabody Picture Vocabulary test, the Lafayette Instrument Visual Choice Reaction Time Device" every day conduct seen by parents. Consequences of the investigation demonstrated that long stretches of cycling and running on treadmill treatment meetings can further develop response time hindrance, language familiarity, advancement in feelings and outrage the executives young people with DS. It is critical for people with Down disorder to be given engine abilities that should be possible with friends, family and independently (Ulrich et al. 2011; Ringenbach et al. 2016).

Lin and Wuang (2012) likewise tracked down that the normal pulse a short time later the intercession was 125 pulsates each moment and 60% greatest pulse was reached. BMI was decidedly related to standard muscle strength, yet not nimbleness execution. Dexterity is characterized in this investigation as "the capacity to adjust bearing and position of the body quickly and successfully while leveled out, and requires the joining of detached

development abilities utilizing a blend of equilibrium, coordination, speed, reflexes, strength, perseverance and endurance further more additional perception decrease out of frustration and melancholy." (Lin and Wuang, 2012).

To sum up, the previously mentioned study and this examination both showed huge enhancements in muscle strength , execution and mental improvement adequately significant to suggest that a doable strength program for kids with DS ought to be around five weeks in term (Lin and Wuang 2012; Gupta et al. 2011). Impediments and Facilitators a major issue with programming for kids with DS is openness and variety. 58% of children with DS don't meet the everyday actual work time proposals (Barr and Shields, 2011). The subjective examination by Barr and Shields (2011) considered the boundaries and facilitators of actual work particularly for youngsters with DS. The scientists talked with 30 guardians of kids with DS not exactly the age of 20, to get a direct view of what they saw to be the boundaries and facilitators of active work for their children. A scope of topics identified with facilitators and hindrances arose. The facilitators included: the accommodating job of family, openings for social collaboration with peers, coordinated open projects that make variations accessible and the juvenile's assurance to prevail with the actual expertise, scholarly capacity and coordination to partake.

The boundaries included: highlights that are related with DS, contending family errands, decreased materially, social and psychological abilities and absence of open programing. Generally speaking, the agents inferred that projects for kids with DS would profit the juvenile's "drawn out wellbeing and prosperity, increment interest and amplify the social advantages connected with active work" (Barr and Shields, 2011). The creators recommended that youngsters with DS were bound to be associated with active work when help was given by family and the juvenile effectively discovered him/herself associated with peer collaboration all through action. These PA straightforwardly advances wellbeing and mental advantages among DS young adult.

OBJECTIVE:

- To access the relationship between Physical activity and aggression among Down syndrome.
- To quantify how aerobic activity reduce aggression among Down syndrome.
- To quantify how aerobic activity helps to manage aggression among Down syndrome.

MATERIAL AND METHODS:

Study Design:

The researcher has been using qualitative method; the researcher has observing the impact of exercise to overcome aggression among Down syndrome students through experimental study. Under the light of incentive theory of motivation the researcher has used reward and punishment techniques to make a concur DS students, for more attraction the music played on background. Total thirty Participants were selected through simple random sampling and duration of intervention program is 3 days in a week for 30 minute and experiment has been conducting for eight weeks.

Setting:

The experiment has conducting inside the gymnasium of Govt. Shadab School for special children 15 participants. The exercise or PA based on different sets Jumping Jacks. Jumping, walking on treadmill. Aggression was measured through observation of instructor and parent's. The interview has been taken from guardian of each participant (DS students).

Control & Experimental group:

The researcher has been doing experiment on 15 Down syndrome students whom are having aggressive behavior. The control group DS students are clinically aggressive and having both hostile and Instrumental Aggression. The researcher has been

observing 15 Down syndrome students whom had selected only for observation. These selected students are already clinically aggressive and having control and instrumental aggression.

Settings:

Govt. Shadab School for Special Children, Lahore

Duration of Study

Sets of Physical activities and exercise	Duration
warm up exercise	5 minutes
Abdominal exercise	3 min
Aerobic exercises	10 min
full body work out (Jumping jack, Squat, Vertical jump)	2 min
Treadmill	5 min
Movement and dance	5 min

The Down syndrome experimental group was exercised 90 minutes for each week. The 15 down syndrome students from different grades have been selected as sample size.

Sample Techniques:

Simple Random Sampling Technique is to be used.

DATA COLLECTION PROCEDURE:

The Impact of Exercise to Over Come Aggression among Down syndrome Students

Methods for Collection of Data:

The data has been collected through observation and parents interviews. There were different sets of exercises has been performed by researcher and DS students were repeating this.

Data Collection Tools (Performa / Questionnaire):

Independent Variable Scale:

Racheal Johnson post experiment interview questionnaire (2016).
Cristan A. Farmer & Michael interview based questionnaire (2017)

Outcome Measurements:

- First of all participants' having evidence of aggression
- Demographic and data related to the history of any medical condition is collected.
- After 5 days of base training pre-test is conducted under the supervision psychologist.
- The incentives has given to subject for motivating them.
- Experimental Subject get involved in 30 minutes supervised training session for 3 days in a week over a period of 8 weeks.
- Post-test is conducted after successful completion of 8 weeks exercise sessions.

List of dependent and independent variables.

- i. Exercise (Independent)
- ii. Aggression among DS (Dependent)

DATA ANALYSIS PROCEDURE:

This is an experimental study with pretest-posttest control group, which was conducted by selection and distribution of educable clinically mild aggressive Down syndrome students in both intervention and control groups. Data collection tools include Aggression Questionnaire. The population selected with collaboration of Psychologist to make more validity in research work.

Study population was educable down syndrome secondary school students from Lahore Govt. Shadab School of special children's who did not have blindness, deafness, autism and speech disorders.

This scale was designed by Cristan A. Farmer & Michael. The researcher used this tool to measure aggression in children and

has 12 open ended interviews based questions. The data has been analysis through qualitative method .Pre and post experiment interviews has been recorded from parents and instructor of Down syndrome students. Theme was generated after data transcription.

The sample consisted of 30 Down syndrome students with having mild aggression who were randomly selected, assigned to the experimental group (15 boys & girls) and to the control group (15 Girls & boys).

It was biggest task to get feedback from parents before exercise but the effort of school administration is highly appreciated to make this possible to conduct this research work successfully.

It should be noted at the beginning the necessary permits were taken from the Principle, Instructors and all students entered the study by obtaining consent from the parents.

The Aggression Questionnaire was first conducted on all educable Down syndrome students and from among them.

The two to three sessions per week (every session 90 minutes) they did rhythmic movements along set of exercise and used exercise equipment as well in school gymnasiums by hearing the Local music (for each session a new song was considered and it was tried to choose local and rhythmic music). In order to make more concentration towards exercise and physical activity the researcher has been used reward and punishment techniques. For making more attraction towards exercise and P.A, The researcher distributed candies to whole participants.

During execution of the exercises, control group received normal activity classes. Due to Covid-19 Pandemic Sop's were strictly followed.

RESULTS

Q. 1: The participant is going to be aggressive without any particular reason?

TABLE-1

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Less Aggressive
<ul style="list-style-type: none">• Aggressive is Decline
<ul style="list-style-type: none">• Control aggression

Q. 2: She/he intends to harm other? , did his/her behavior remain same after attending 8weeks exercise program?

TABLE-2

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Less Hyper
<ul style="list-style-type: none">• Not hitting
<ul style="list-style-type: none">• Controlled Hostile aggression

Q. 3: Did exercise controlling his/her aggression?

TABLE-3

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Controlled Aggression
<ul style="list-style-type: none">• Less violent behaviour
<ul style="list-style-type: none">• Less Self harming

Q. 4: He/ She hit stationary items to peers during lecture time/ during family time

TABLE-4

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Not hitting stationary
<ul style="list-style-type: none">• Emotions Controlled

Q. 5: He/ She is using abusive language?

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Less Instrumental Aggression
<ul style="list-style-type: none">• No abusive Language

Q. 6: He/ She become so mad when someone disagrees with him/her?

TABLE-6

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Not these days
<ul style="list-style-type: none">• Controlled behaviour observed

Q. 7: He/ She has trouble for controlling temper?

TABLE-7

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Temper controlled
<ul style="list-style-type: none">• No shorter Tempered
<ul style="list-style-type: none">• Annoying behavior decline

Q. 8: He/ She are intending to harm her/hisself?

TABLE-8

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Less Self Harm
<ul style="list-style-type: none">• Less Self Biting

Q. 9: He/She pushes other during free period?

TABLE-9

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Less Instrumental aggression
<ul style="list-style-type: none">• Less Pushing & hitting

Q. 10: Did exercise or physical activity overcomes the aggression among Downs syndrome students?

TABLE-10

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Effective tool
<ul style="list-style-type: none">• Positive Impact
<ul style="list-style-type: none">• Less Aggression

Q. 11: Did you observe any changes in his/her emotion?

TABLE-11

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Positive changes
<ul style="list-style-type: none">• Less Shouting
<ul style="list-style-type: none">• Less verbal & Physical aggression

Q. 12: Recommendation from Parents /Instructors?

TABLE-12

Dominant Theme in Parents' Response:
<ul style="list-style-type: none">• Highly recommended exercise

DISCUSSION

Exercise has significant impact to overcome aggression (Instrumental & Hostile). Exercise has given relief from sleeplessness among Down syndrome students. Research investigates that Physical activities are helpful to overcome. All participants having proper evidence coping up hostile aggression and Instrumental aggression after 08-week of attending physical activity sessions.

The recent study has been conducting during the Covid Pandemic and no previous studies has examining the both instrumental and hostile aggression in one experiment .The exercise found that self-control improved in down syndrome .120 min session in each week proven that PA has been giving prominent advantages to controlling aggression.

While the exploration of the Relationship between exercise and Down syndrome by which PA may impact on sleeping patterns. While there were no changes on control group the experimental group participants must be attended the 3 sessions/week for behavior observing During first week session parents were less interested for interviews, meanwhile school administration and class instructors play significant role during whole experimental process they found that Down syndrome (DS) who participated moderate- intensity exercise program demonstrated improvements in controlling to intend to harm others , while those did not participated become violent. The result shows indicate exercise participations given to improvements to overcome both instrumental & hostile aggression.

Our results proven that exercise have positive impact on controlling aggression. This research is limited by a little sample size. The selected sample individuals were clinically hyper and aggressive .The researcher has compete support of psychologist

during whole research work. Due to Covid-19 the researcher has faced a lot of obstacles during exercise session and maintained Sop among group members.

In addition, the interaction of students in exercise session has positive impact on student cognitive and behavior imitation. By participating in group activities can make them learn appropriate ethics. Since rhythmic movements have great flexibility, different groups of children with limitations in mental faculties use and enjoy it and this has led to more appropriate manners.

Conclusion:

The Research suggests that PA reduce aggression in individuals with DS, There is clinically proven that aggression above normal scale evidence measure in DS. The 8 weeks exercise or PA program give betterment for coping up aggression. The participant has decline on both types of aggression after participated in Physical activity program. The first study to measure aggression among down syndrome and both instrumental and hostile aggression checked and PA have been effecting for controlling aggression. Together these results suggest improve Exercise has given relief from sleeplessness among Down syndrome students.

By contributing in group activities make them learn appropriate social behavior. Understanding the barriers student with Down syndrome experience with physical activity.

The researcher has designed effective physical activity programs and chances to given long lasting benefits of exercise for students special need. To prove that the arena of physical education can do work for betterment of special population and main purpose to most ignore community of Pakistan.

Limitations:

- The primary limitation to the generalization of these results is getting Selection of Down syndrome students
- Lack of Comprehensive Previous local research literature in the Pakistan.
- Lack of interest observed from many parents side to given interviews pre experiment.
- The researcher has faced difficulties to get complete attention of concerning psychologist.
- Covid-19 Pandemic directly affected the complete work.

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