



RESEARCH PAPER

**Relationship between Physical Activity and Learning Ability:
Perception of Physically diminished Adolescents**

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ABSTRACT

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Physical activity is integral part of a healthy way of life and specially in the process of learning activities, the degree to which youth participate in physical activity is therefore of great interest to students and public health. The present study aimed to underline the relationship between effect of doing physical activity and perceptions of physical handicap impaired adolescents, to find the relationship between physical activity and physically handicap adolescents and their perception about learning. A sample of size 684 (male=526, female=158) collected from public sector special/disable institutes in Punjab using simple random sampling. Descriptive and inferential statistics were used Scale for Individual with Physical Disabilities (PASIPD) and found significant under Pearson Chi square. In order to assess the respondent perception by using UCLA scale, the higher proportion (44.6%) of respondents sometimes feel that they are isolated from others, whereas 42.8% of respondents never feel that there are people I can turn to them. Further the analysis of the data yielded that 5 out of 10 respondents seldom feel lack of companionship, no longer close to have anyone, their social relationships are superficial and no one really known them well

Introduction

Physical activity is an integral part of a healthy way of life that has many health welfares (Fletcher et al., 1996). The degree to which youth participate in physical activity is therefore of great interest to public health. According to World Health Organization, decline of physical activity is an alarming trend worldwide and physical activity declines with age during adolescence; a decline that persists during adult years (Organization, 2003). With the decline in levels of physical

activity, rates of psychological and physiological risks such as stress, anxiety, obesity and overweight are rising among both young and middle-aged adults (Schmidt, 2003). A growing body of research also relates psychological health and well-being to physical activity (Fox, 1999). Physical Activity related researchers and Nutritionist focuses that physical activity alleviate and recover mood symptoms of anxiety and depression. Furthermore, adolescent physical activity is constantly associated with higher ranks of self-esteem, self-concept and lesser levels of stress and anxiety (Calfas & Taylor, 1994).

Millions of people worldwide affecting the increasing day-to-day problem of mental illness (Olesen et al., 2012). Insomnia, headache, stress, tiredness, loneliness and anxiety all form part of mental illness.

Children and young people with poor mental and physical health or disabilities often have more trouble generating and sustaining physical activity as early as pre-school years than their typically developing peers (Hall & Strickett, 2002). Delayed motor, perceptual, cognitive, language, communication and/or social skills are likely to contribute to the difficulties faced by individuals with disabilities in forging lasting physical activity (Parker et al., 2006). Lack of friends, few social activities, and isolation are among the most common lifelong challenges facing people with disabilities (Newton and Horner, 1993).

Children with disabilities are often perceived to be less socially skilled and less socially skilled than their typically developing peers. For example, in Geisthardt et al. (2002) research, of all surveyed boys, those with behavioral problems and severe mental deficits spent the least amount of time in their homes with playmates. Many parents of children with disabilities (cognitive or physical) felt that other parents were hesitant to encourage interaction between their child and a child with a disability because of the extra attention and supervision that would be required. In fact, this study indicated that half (50%) of disabled children rarely or never played in their homes with neighborhood peers. Nearly half of children with developmental disabilities parents (about 46 percent) indicated in another survey that their child did not even have a close friend (Solish et al., 2003).

Perception about Loneliness and Disability

Loneliness can affect people, but it has broader implications for society as a whole. There has been a major increase in interest in 'loneliness' as a research topic since the 1970s (Savikko, 2008). Notwithstanding differing views on the specific nature of loneliness, researchers commonly see isolation as a negative emotion that is detrimental to overall health and well-being. The notions that a certain degree of isolation is required for the normal functioning of society (Ferreira-Alves et al., 2014). It has long been recognized that loneliness is closely associated with ageing, and researchers have been discussing the prevalence of loneliness and social isolation, particularly among older adults, among all ages. Loneliness is actually associated with the 'main problem' in later years of life. For example, nearly half a

million older Britain are reported to have no one to celebrate their Christmas with in 2009 (Sharma et al., 2018). Latest evidence from the English Longitudinal Ageing Study (ELSA) suggest that 25% of participants across the age of 52 felt increasingly lonely and 9% stated they in the era of lonely as well. Always or often 80 years old or older were still 46% of everyone who tend to feel lonely (Beaumont,2013). Loneliness is known to be harmful to physical health because it is perceived as an indicator of increased blood pressure and is known to increase susceptibility to other illnesses and mental illness (Marsh, 2014). There was a dire need to work on relationship between physical activity and perception of loneliness in Pakistani perspective with reference of special children. So, this study identified the relationship between physical activity and perceptions of loneliness in physical handicap and hearing-impaired adolescents

Literature Review

Although many quantitative and qualitative experiments have explored the obstacles and facilitators to physical activity for people of all ages with physical disabilities, few longitudinal studies have specifically focused on adolescents with physical disabilities in childhood (Buffart et al.,2009). In addition, scant literature has explored rehabilitation clinicians' perspectives on barriers and facilitators to physical activity for physically disabled youth

Most studies have focused on young people and/or their caregivers. Finally, few longitudinal researches based on adolescents and others ' viewpoints on the persistence of adult physical activity (Morris et al., 2018). The studies discussed below are the few that have started in the literature to address these gaps. A qualitative study conducted byBuffart et al. (2009) examined the barriers and facilitators to physical activity specifically for young adults with childhood

Onset disabilities, including individuals with cerebral palsy, brain injury acquired, and rheumatoid arthritis. The 16 participants ' average age was 22 years. The researchers used the design for Physical Activity for Disabled People (PAD), which is closely related to the ICF system. Separating personal obstacles and facilitators into physical and psychological factors and separating environmental barriers and facilitators into social and physical factors. The personal and environmental factors that were identified were highly reflective of those listed in the systematic and other types of reviews discussed earlier, with motivation, strength and energy level, perceived competence, informational and professional supports being identified as particularly important and performed one of the few studies that explored the obstacles and facilitators for youth with physical disabilities to physical activity from the perspective of both youth and recovery clinicians. The six practitioners who participated in this study (i.e., two physiotherapists, two occupational therapists, two recreational therapists) were all involved with a program that helped adolescents find opportunities for physical activity in the neighborhood. They engaged in interviews that were semi-

structured. Enquiries were conducted by 28 youth participants. We were between 10 and 17 years of age and were either current or past program participants. Most had cerebral palsy, while others had spina bifida, dystrophy of the body, and other conditions.

The obstacles and facilitators found were coordinated using the structure of the IC F. Wright et al. (2018) classified all facilitators as "environmental" factors and "person-related" reasons for physical activity and obstacles to physical activity. These headings were then used to develop themes that were eventually ranked in order from the clinicians most discussed to the least discussed. From the clinician's viewpoint, the most important facilitator of physical activity was "planning activities to encourage success and inclusion." Youth identified as their most important facilitator of physical activity "the right people make physical activity fun." The most significant barriers to physical activity found by the clinician participants are "Practical limitations" and "time constraints and priorities." "Bodily limitations" (physical limitations due to disability) and "self-restrictions" (psychological challenges) are described by young people as their most significant barriers to physical activity

Material and Methods

This survey research was conducted through cross sectional method.

Population of the Study

Total population of physical impaired adolescents is 10237. Out of 10273 students, 1089 students are physically handicap (738 male and 351 female) and 9148 are hearing impaired (5935 male and 3213 female). A sample of 684 students used for this study. Random sampling technique was used for the selection of the sample.

Delimitation of the study

The study was delimited to Students of 12-18 years-old able to read Urdu language. Mentally active, Low-active or inactive (i.e., participated in moderate physical activity fewer than 7days). Willing to participate in study program. May involve in another physical activity program. Free from neurological disorders No history of stroke, or surgeries including the removal of brain tissue. Normal or corrected-to-normal vision of both eyes. No color blindness

Data collection

Data was collected with the help of instructor physical education.

Results and Discussion

Demographic data of the respondents

Table 1
Gender wise distribution of the respondents

Variable	<i>f</i>	%
Female	158	23.1
Male	526	76.9
Total	684	100

Source: survey conducted by the authors

Table 1 portrays that total 684 respondents participated in the study. Males' respondents were in majority with 76.9% percentage. On the other side 23.1% respondents were females. Out of 684 respondents 531(77.6%) participated in this study with ear disability whereas 153(22.4%) respondents suffered from physical disability as shown by figure 1.

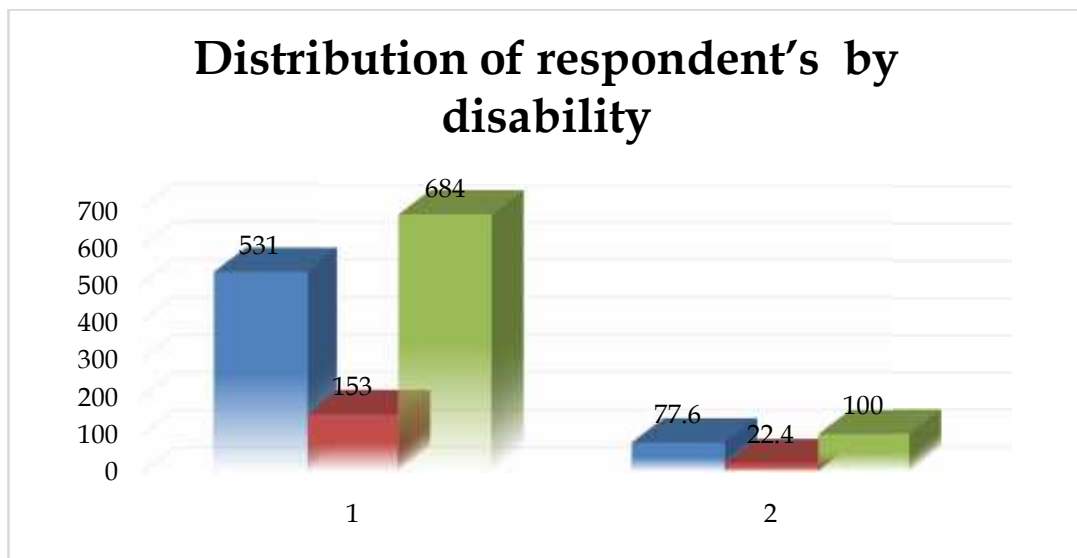


Figure 1

Table 2
Frequency distribution of respondent's by age

Variable	<i>f</i>	%
11	18	2.6
12	66	9.6
13	66	9.6
14	78	11.4

15	24	3.5
16	152	22.2
17	70	10.2
18	114	16.7
19	96	14
Total	684	100

Median= 16 year

As depicted by table 2, higher proportion (22.2% and 16.7%) of the respondents fall in age category of 16 and 18 years respectively. Whereas only 2.3% and 3.5% of the respondents having age of 11 and 15years.

Table 3
Activities Analysis

Cross Tabulation	N	Chi-square [df]	P-value
Time duration and stationary activities	17	8.035 [4]	<0.090
Time duration and walk, wheel activities	18	14.88 [4]	<0.005
Time duration and recreational activities	15	2.854 [3]	0.415
Time duration and moderate sport activities	17	5.634 [6]	<0.046
Time duration and strenuous activities	15	17.929 [6]	<0.006
Time duration and exercise activities	12	6.24 [2]	<0.044
Time duration and light housework activities	15	6.83 [6]	<0.0336
Time duration and heavy housework activities	15	4.123 [4]	0.393
Time duration and home repair activities	16	7.182 [6]	<0.0304
Time duration and lawn work activities	13	4.198 [3]	0.241
Time duration and lawn work activities	19	10.050 [4]	<0.040
Time duration and care for another person activities	15	19.50 [6]	<0.003

Table 2. Pearson chi square analysis exhibits that with the exclusion of recreational activities, exercise activities, housework activities and lawnwork activities all other characteristics are statistically significant (P-Value <0.005).

Table 4
Perception of adolescent

Sr. No	Statement	Never (%)	Rarely (%)	Some times (%)	Often (%)	Mean	S. D
1	I feel in tune with the people around me	28.2	12.42	23.5	35.8	2.68	1.23
2	I lack companionship during physical activity	18	55.1	19.3	7.6	2.71	0.81
3	There is no one whom I can turn to	25.7	31.1	29.1	14	2.31	1.001
4	Don't feel alone	25	35.4	25.9	13.7	2.28	0.98

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5	I feel part of a group of friends	12.6	37	29.5	20.9	2.59	0.95
6	I have a lot in common with the people around me	11.4	56	19.3	13.3	3.5	0.84
7	I am no longer close to anyone	34.1	52.3	11.7	1.9	1.81	0.71
8	My interests and ideas are not shared by those around me	10.2	35.8	38.5	15.5	2.59	0.87
9	I am an outspoken person	21.1	29.8	33	16.1	2.44	1.01
10	There are people I feel close to me	19.3	44.7	24.6	11.4	2.28	0.9
11	I feel left out	12.3	31.4	35.2	21.1	2.65	0.96
12	My social relationships are superficial with my friends	16.4	35.2	32.9	15.5	2.48	0.94
13	No one really knows me well	15.5	44.6	33.5	6.4	2.31	0.81
14	I feel isolated from others	11.8	36.4	44.6	7.2	2.47	0.85
15	I can find companionship when I want it	17.1	44	30.1	8.8	2.31	0.88
16	There are people who really understand me	21.1	46.8	22.7	9.5	2.21	0.88
17	I am unhappy being so withdraw	11.5	30.1	35.8	22.5	2.69	0.94
18	people around me but not with me	5.4	47.1	37.4	10.1	2.52	0.75
19	There are people I can talk to them	3.9	64.3	23.2	8.5	2.36	0.69
20	There are people I can turn to them	42.8	42.4	13.3	1.5	1.73	0.74

Data analysis of Table 4 revealed the feelings of adolescent respondents at different time of day and in different situations, which will be useful to draw conclusion. Among people the respondent felt tuned 28% never, 12.2 rarely, 23.5% sometime, 35.8 often and so the mean score remained 2.68 & standard deviation 1.23. The perception about lack of companionship indicated that 25.7% never, 31.1%, rarely, 19.3% sometime, 7.6 often and so the mean score remained 2.71 & standard deviation 0.81. The results of data analysis about partner, it shown that 18% never, 55.1%, rarely 19.3%, sometime 29.1%, often 14% and so the mean score remained 2.31 & standard deviation 1.001. Feeling alone, statement exposes that the respondent perceived never 25%, rarely 35.4%, sometime 25.9%, often 13.7%, which lead the values mean 2.28 and standard deviation remained 0.98. The feelings about a group member indicated that never 12.6%, rarely 37%, sometime 29.5%, often 20.9%, and so the values of mean remained 2.59 and standard deviation remained 0.95. The feelings of the respondents about commonality perception revealed that never 11.4%, rarely 56%, sometime 19.3%, often 13.3%, which lead the values mean 3.5 and standard deviation remained 0.84. The data analysis about the statement of close relationship in a group reflected that never 34.1%, rarely 52.3% sometime 11.7%, often 1.9% and so the mean score remained 1.8 & standard deviation 0.71. The results about the statement sharing of ideas and feelings are never 10.2%, rarely 35.8% sometime 15.5%, often 2.59% and so the

mean score remained 2.59 & standard deviation 0.87. The feelings about openness of the respondent shown that never 21.1%, rarely 29.8%, sometime 33%, often 16.1%, which lead the values mean 2.44 and standard deviation remained 1.01. The emotions of respondents about closeness with people never 19.3%, rarely 44.7%, sometime 24.6%, often 11.4%, which lead the values mean 2.28 and standard deviation remained 0.9. The perception about left out from group depicted that never 12.3%, rarely 31.4% sometime 35.2%, often 21.1% and so the mean score remained 2.65 & standard deviation 0.96. The analysis of the feelings about superficial relation shown that it remained the values of never 16.4%, rarely 35.2% sometime 32.9%, often 15.5% and so the mean score remained 2.48 & standard deviation 0.94. The analysis about the perception of introvert that never 15.5%, rarely 44.6% sometime 33.5%, often 6.4% and so the mean score remained 2.31 & standard deviation 0.81. The concept of isolation from other reflected in this analysis that never 11.8%, rarely 36.4% sometime 44.6%, often 7.2% and so the mean score remained 2.47 & standard deviation 0.85. The perception about the want of companionship reflected in this data analysis are never 17.1%, rarely 44% sometime 30.1%, often 8.8% and so the mean score remained 2.31 & standard deviation 0.88. The concept of understanding with people revealed in this table that never 21.1%, rarely 46.8% sometime 22.7%, often 9.5% and so the mean score remained 2.21 & standard deviation 0.88. The feelings about withdrawal from group explain that never 11.5%, rarely 30.1% sometime 35.8%, often 22.5% and so the mean score remained 2.69 & standard deviation 0.94. The feelings about loneliness being part of a group reflected that never 5.4%, rarely 47.1% sometime 37.4%, often 10.1% and so the mean score remained 2.52 & standard deviation 0.75. The results about 'feeling easy to talk' indicated that never 3.9%, rarely 64.3% sometime 23.2%, often 8.5% and so the mean score remained 2.36 & standard deviation 0.69. Results about feeling comfortable to turn some people depicted that never 42.8%, rarely 42.4% sometime 13.3%, often 1.5% and so the mean score remained 1.73 & standard deviation 0.74.

Conclusion and Recommendations

After data analysis the following are some of the findings, through which conclusion and recommendations are presented here:

- ✓ Physical activities are with respect to perceptions of loneliness in physical handicap and hearing-impaired respondents are statistically significant.
- ✓ The higher proportion (44.6%) of respondents sometimes feel that they are isolated from others, whereas 42.8% of respondents never feel that there are people I can turn to them.
- ✓ Further the analysis of the data yielded that every 5 out of 10 respondents seldom feel lack of companionship, no longer close to have anyone, their social relationships are superficial and no one really known them well.

Finally, it is concluded that physical activities and learning abilities to perceptions of loneliness in physical handicap respondents are statistically significant. While respondent loneliness by using UCLA scale are underlined, the higher proportion (44.6%) of respondents sometimes feel that they are isolated from others, whereas 42.8% of respondents never feel that there are people I can turn to them. Further the analysis of the data yielded that every 5 out of 10 respondents seldom feel lack of companionship, no longer close to have anyone, their social relationships are superficial and no one really known them well.

These statistical outcomes will serve as a guide in order to formulate adequate policies and planning's regarding physical handicap respondents, ultimately to achieve better outcomes as well as declining perception about their learning abilities which may improve the quality of life.

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