

Healthcare workers' perceptions of physical activity programmes for adults with intellectual impairments

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Abstract

Persons living with intellectual impairments tend to have sedentary lifestyles and are not given the opportunity to participate in active leisure pursuits and sports that suit their needs. This is mainly because the caregivers do not know how to handle these individuals, and give them little or no opportunity to engage in physical exercise and sport with others, and enjoy the social aspects of these activities. The purpose of this study was to determine whether physical activity has a positive effect on adults with intellectual impairment(s), through the perspective of a caregiver. The study explored whether lifestyle and health improved through physical activity. Using qualitative research methods, four caregivers were interviewed using semi-structured interviews in order to gain an insight into their perceptions of the efficacy and perceived effects of physical activity in individuals with intellectual impairments. The participants were purposely selected, and data was collected through in-depth interviews and analysed through exploratory analysis and grouped into themes. Trustworthiness and anonymity were ensured by doing member checks, debriefing and peer reviews. The key finding in this research was the reported lifestyle and health benefits from caregivers for intellectually impaired individuals after participating in regular physical activity or receiving physical stimulation. The reported effects on mood, energy levels and concentration were additional themes explored.

Key words: Intellectual, impairment, activity, exercise, positive

INTRODUCTION

Persons living with disabilities tend to lead a sedentary life because their caregivers are either overprotective or do not possess adequate knowledge of physical activity programming which may have a negative impact on the frequency of physical activities (Williams, 2001). According to Thompson et al., (2010), a sedentary lifestyle not only negatively affects one's bones, posture and muscles, but also a person's general wellbeing. High blood pressure, cholesterol problems and heart disease are some of the symptoms associated with a sedentary lifestyle (Thompson et al., 2010). Research has expanded on this, stating that individuals with a disability are indeed sidelined and excluded from participation because of their disability (Mwangi, 2008). Sidelining those with impairments is a form of discrimination based on physical conditions, and should be discouraged at all costs (Williams, 2001). Increased motor activity has been shown to lead to better physical and mental health, and to augment other aspects of functioning, such as cognitive performance (Puri et al., 1995) and more recently has been shown to promote neural and functional recovery in people with damaged nervous systems (Heyn & Ottenbacher, 2006). Although the benefits of fairly intense physical exercise programmes such as strength training, are becoming increasingly well recognised (Bartlett et al., 2011), few studies on the positive effects of generalised activity programmes have been conducted in individuals with cerebral palsy (Papavasiliou, 2009). This condition was seen in three of the four participants in the present study. Using carers to help assess, monitor, or promote health in people with intellectual impairments may be one way of improving health outcomes in a population that experiences significant health inequalities. (Bergstrom, 2013). By interviewing those who care for and provide a service to impaired individuals, it may be possible to see

certain results or trends in the responses of participants. This study therefore explored the effects of physical activity on intellectually impaired individuals through the point of view of their caretakers/ caregivers/ therapists. It is crucial to explore the potential benefits that physical activity can have for persons with intellectual disabilities, as it creates a platform for more research on a larger scale where interventions and trials on physical activity can be carried out. This research will also raise awareness in terms of answering questions about how physical activity affects persons who are intellectually impaired. It is important to try and make a social contribution to society in a positive way through acknowledgment, education, implementation, and action.

METHODOLOGY

The study employed qualitative methodology using in-depth structured interviews. This method was useful as it allowed participants to express themselves in their own words, and offer personal views of their experiences and interpretations (Flick, 2002). The sample consisted of four purposefully selected carers who had been actively involved in the lives of individuals with intellectual impairments for a number of years or since childhood. The individuals with intellectual impairments, each had congenital impairments. The participants (carers) were selected by word of mouth, based on the criterion of being involved in or providing physical therapy to individuals who were intellectually impaired since childhood. All the participants were residents of South Africa.

The researchers conducted a once-off in-depth, face-to-face interview with each participant, consisting of 10 open-ended questions of 45-90 minutes duration each. The core questions asked in the interview allowed the participants to draw from their personal experience while spending time with their clients.

The main topics of the questions were as follows: How often did the client participate in physical activity, and what were the cognitive and behavioural outcomes of participating in physical activity? How often did the client participate in activity? What was the mood of the intellectually impaired individual after physical activity? Other questions included what patients were able to do independently and in what activities individuals with impairments needed assistance.

Interviews were recorded and the data was transcribed verbatim in English. The interviews allowed for themes to emerge by analysing the data using a thematic analysis. After thematic categorisation, responses were coded and written as a narrative summary which aimed at reflecting the experiences of the participants in relation to caring and observing their patients' behaviour. The researcher ensured confidentiality and trustworthiness while conducting the study. Clarifying researcher bias through acknowledging past experiences, bias, interpretation and dilemmas was also carried out as they could shape the findings of the study. Member checking was done through data reanalysing, reinterpreting and re-concluding, so that the participants could judge the accuracy and credibility of the information. Trustworthiness was ensured through peer review and debriefing. This was done by having an external checker look over the findings, and debriefing after data collection between these partners. Triangulation was done through collaborating different methods of gathering information in order to support the themes, namely, having recordings taken and an interview process conducted.

With regard to ethics considerations, permission to conduct this study was obtained from the Research Ethics Committee of the University of the Western Cape. Permission from the participants was sought

before the interviews were recorded. All information was treated in the strictest confidentiality, and the identity of participants was protected. Personal information and names were not disclosed in the reporting of the findings. Pseudonyms were therefore used.

RESULTS AND DISCUSSION

Four caregivers were interviewed concerning the individuals with intellectual impairments whom they cared for, or to whom they provided a service. This section provides the most important information pertaining to the effect of a physical activity programme on the motor control of adults with intellectual impairment.

The participants showed genuine care for the individuals with impairments. They made sure that they were properly taken care of and that they got some physical activity most days of the week.

We try and take him to an occupational therapist every few weeks. He does not have any physical incapability's but the OT reinforces certain skills as well as encourages him to perform these skills alone-refinement of skills...Carol (caregiver/mother)

It is difficult to give persons with impairments a set exercise programme, because it is often impossible to get them to follow the programme. Therefore any moving around, such as walking or crawling, can improve their motor control and maintain muscle strength.

He doesn't have a regular set of exercise but he does get up and walk around, going to the garden and back. He will never just sit and watch TV, he's always moving his

hands touching things, looking at things or walking around the kitchen...Tina (caregiver)

We have recently started taking him to see a biokineticist which is helping him enjoy participating in physical activity as well as fixing his posture which is kyphotic...Tina (caregiver)

Participants reported that, in conjunction with physical activity, the individuals with impairments went to workshops where they were encouraged to do arts and crafts. Activities such as painting or making a necklace with beads, were used to stimulate their fine motor skills.

Stretching they taught him at school, he uses his arms a lot so I just remind him "Muhammad, stretch" and he'll do the stretches for his arms...Nadia (home based carer)

She gets stretched every day for 15 minutes and because she is bedridden the nurses turn her every one to two hours...Gina (physiotherapist)

The days he goes the workshop he comes back quite tired but calm. Then he usually just has dinner and sits in the lounge with us for a while not really interacting but just observing and then he sleeps usually by 8 o'clock. So I definitely think the day that he is able to go out in the yard or out to the workshop he is much more calm and at ease...Tina (caregiver)

The response of most of the participants indicated that physical activity had a positive effect on the individuals with impairments.

He is always in a better mood, more productive mood, his energy is better and he seems more peaceful, less disruptive but that could be because he is tired as we do perform the activity close to the evening. I will definitely say that it does affect him positively...Carol (caregiver/mother)

When he's able to walk around the garden uninhibited sitting on a swing or touching leaves or picking up grass he comes back into the house much more calm... when he doesn't go outside then he becomes quite restless and walks up and down the kitchen touching cups and cupboards and opening and closing doors like he's looking for something...Tina

Oh like excellent, from like sitting and writing and drawing and playing with the kids. He loves it and it makes him calm, I think to put his attention into something gives him a sense of feeling calm. You know what actually, they sent him specifically to a certain school because he would get that stimulation. Even when with the children, he'll play and pass the ball and laugh and enjoy himself like kids without cerebral palsy would... Nadia (caregiver)

There were some individuals with intellectual impairments who were not as independent or physically capable as the others.

He can crawl, he has very strong upper body strength. He can't feel so well so that's why we don't want him crawling because he gets scratched, but he is a busy body. He roams around all day in

his wheelchair and if it's in a safe area he'll crawl around...Nadia (caregiver)

She is conscious but not really there so she doesn't react to the physical stimulation. She only shows expression when her legs are being stretched because it is very tight. In my opinion its positive because without the stretching contractures would be worse and she would become completely immobile, not moving at all...Gina (physiotherapist)

Because of the limited number of participants in the study, it is unclear whether data saturation was reached regarding the perceived benefits of physical activity for subjects with physical impairments. This constitutes one of the main limitations of the study.

The information from the participants indicates that physical activity does benefit the impaired individuals; their level of impairment should not be a deciding factor for whether they should take part in physical activity. The researchers recommend that caregivers should encourage physical stimulation through ball games, dancing, or even chores around the house. Impaired individuals who are high functioning can be introduced to group sport.

Individuals with an intellectual impairment who are more dependent on caregivers owing to a low functional level still benefit physically from physical activity such as stretching. If they are left to do the physical things that are within their capabilities, it also stimulates motor control movements. Stretching only maintains motor control but does not improve the motor control; the bedridden individual cannot do anything for herself. We can only recommend that her caregivers continue to stimulate her to try to get her to respond. The individual with an intellectual impairment, who is in a wheelchair, crawls around in a safe environment, which is a great way to get

important motor control movements to improve. His caregivers can play ball games with him, and can encourage him to hold himself up in a standing position if it is possible.

These adults with an intellectual impairment most probably were not exposed to any sport or recreational activities, therefore the only regular physical activity they may get is walking. If they are capable of walking around independently, the caregivers should think about introducing them to a walking club or a group sport appropriate for their age. to increase their level of physical activity. Motor control improvements may include better balance, improved gait, and better endurance to carry out the activities of daily living.

All responses were positive, indicating that any sort of activity that the persons with impairment were exposed to had a beneficial effect in terms of enhancing mood and developing a positive attitude. A caregiver and mother to one of the individuals made it very clear that any physical activity that he participated in was beneficial to maintaining gross and fine motor control. She reported that his behaviour patterns were positively affected on the days that he became active. There was consensus among the caregivers that when the persons with the intellectual impairment were allowed to go outside, or took part in activities, they returned in a better state. Tina was always happy when there were workshops or when a walk around the garden was allowed. Similarly, John would always come back tired but also in a calm mood. Nadia agreed with this, saying that Liam would be calmer and happier when he got to play with others, simply passing the ball around and laughing, which was a pleasure for her to see. She was also glad that he could play and have these playful times.

Simple stretching and independence

Allowing them to do the things they are capable of was vital to helping them feel independent. They might need help with certain tasks, but letting them help themselves was most important to the individual to maintain an active lifestyle. A physiotherapist stretched one of the persons who was bedridden. She got stretched every day and sometimes she resisted the movements. However, this kind of response to stretching was welcomed, because it worked the muscles and decreased the loss of bone density. These factors were important for this person because this was the only type of activity she got besides her reaching for objects that were not there, or the nurses who turned her over every two hours. Another impaired individual used a wheelchair to get around.

One participant indicated that the impaired person was content and happy when he was outside in the garden doing simple things like watching the birds, sitting on the swing or playing on the grass or leaves. When they were able to be out and not constantly aware of someone doing things for them or telling them what to do, they felt a sense of independence that everybody needs.

Everyday activities

It is difficult to get people with an impairment to stick to a programme. This was supported by many of the participants who stated that the impaired person did not have a set exercise programme to do every day. This may be due to difficulty concentrating, which many people with an intellectual impairment experience. One of the participants who cared for an individual with an intellectual impairment said that he did not have a set routine. She said that he never just sat on the couch and watched television all day; he had to move somehow. He either walked in the garden or in the house, or did something active with his hands. One participant took the individual with an

intellectual impairment to an occupational therapist, while another participant started taking her son to see a biokineticist to help correct his posture and make exercise enjoyable for him. Some people may see exercise as a chore, because they simply do not enjoy it, impaired or not. If it is not fun for one and one does not enjoy it, then one will not want to do it or look forward to doing that task again. Caregivers do not have to take their clients to specialists to make exercising fun; health professionals can give them suggestions and ensure that exercises are done correctly, especially when doing functional exercises. Walking, general play, and running around, are good guides for regular activity to maintain a healthy lifestyle, and decrease the risk of morbidity and mortality. The World Health Organisation (2005) has said that physical activity, such as brisk walking, has protective effects for many chronic diseases such as coronary heart disease, hypertension and osteoporosis.

CONCLUSION

Although this study is limited to four participants, it does not detract from the rich data obtained for this study. In conclusion, any physical activity that impaired individuals are able to do, affects them physically in the sense that it maintains, in some cases, or improves, their motor skills. Regular physical activity has been proven to be associated with reduced anxiety and depression levels, enhanced social inclusion, and a better sense of belonging. The types of physical activity that these impaired individuals performed, positively affected their gross and fine motor control. Walking, running, wheeling, throwing and reaching all encompass gross movements, and actively doing these activities reinforces the movements into their brains. Some painted, drew, and did arts and crafts, thereby learning or reinforcing their fine motor movements. These experiences and new ventures can only be

positive and encourage individuals to do more for themselves and feel a sense of purpose. Therefore they will continuously try to do new movements and push themselves to do more and become even more independent. All they need is the opportunity, support and patience of their caregivers.

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