

PEDIATRIC DISABILITIES AND THE POWER OF PHYSIOTHERAPY: AN EVALUATION OF CLINICAL EFFECTIVENESS

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Abstract:

This study examined the role of physiotherapy in enhancing the well-being of physically and health-impaired children (PHIC). Conducted at the Federal College of Education (Special), Oyo, Nigeria, the research involved 20 PHIC students randomly selected from the 100–300 levels within the School of Special Education. Participants, aged 19 to 30 years, comprised 40% males and 60% females. Data were gathered using a structured 20-item questionnaire and analyzed through frequency counts and simple percentages. Results indicated that physiotherapy significantly improves the physical and health status of PHIC, aiding in mobility, muscle strength, and overall functional ability. The study underscores the importance of integrating physiotherapy into rehabilitation programs for children with physical and health impairments. Incorporating physiotherapy services can support their recovery, foster independence, and promote better integration into educational and social environments.

Keywords:

Physiotherapy, PHIC, Disability, Rehabilitation

INTRODUCTION

Physiotherapy (also known as Physical Therapy) is an arm of Rehabilitation Medicine and a health care profession that used physical approaches to promote, maintain and restore physical, psychological and social well-being taking into consideration varieties in health status. It is science – based that is committed to extending, applying, evaluating and reviewing the evidence that underpins and informs its practice and delivery (Chartered Society of Physiotherapy (CSP), 2002b). Physiotherapy is also concerned with identifying and maximizing quality of life and movement potential with the spheres of habitation and rehabilitation; which encompasses physical, psychological, emotional and social well-being.

Professionals trained to administer physiotherapy are known as Physiotherapists (PTs). PTs interact

with patients/clients; other health professionals, families, care givers and communities in a process where movement potentials is assessed and goals are agreed upon using knowledge and skills that are unique to physiotherapy. According to Gardiner and Turner (2002), physiotherapy functions to help those individuals who are crippled, deformed or otherwise physically handicapped and those who have health problems by assisting them to learn how to use parts of the body and develop physical skills, also helping the child to become mobile and parents to become skillful in assisting their child including lifting, positioning an physical care.

Part of physiotherapy services is to assist people with movement disorders that may be present from birth (such as cerebral palsy), acquired through accident or injuries or the result of lifechallenging major events (such as stroke) or the development of a disease of the nervous system (Deploy and Gilson,

2004). Physiotherapy used a variety of techniques to help the muscles and joints to work to their full potentials. Apart from offering of treatment, PT also give advice that help prevent problems from returning or even happening in the first place (Charlotte, 2006). Physically and Health Children (PHIC) are those that have problems with the muscles, joints or bones and nerves. They suffer from different types of impairments that range from orthopaedic, neurologic and health wise. They are those that are crippled, deformed or otherwise physically handicapped (exclusive of the visually, auditory and other sensory handicapped) and those who have health problems which interfere with normal health in a normal classroom. Physical and health impairment can be caused by infectious diseases like poliomyelitis, syphilis, gonorrhea, rubella (pre-natally); prolonged labour and use of forceps and spina bifida (peri-natally); infectious diseases like German measles, whooping cough, meningitis, self-medications and accidents (post-natally) (Obani, 2004; Smith, 2001). Examples of conditions that lead to physical and health impairments are muscular dystrophy, spinal cord injuries, cerebral palsy, anterior poliomyelitis, spina bifida, asthma, sickle cell anaemia, cancer, stroke and so on.

Physiotherapy helps these PHIC to become mobile (either independently or by using equipment/assistive devices). Services that help restore function, improve mobility, relieve pain, and prevent permanent disabilities of individuals who have an injury or diseases are being rendered by PTs. Physiotherapists restore, maintain and promote general fitness and health of people.

Varieties of techniques being used in physiotherapy include:

1. Exercise programs including hydrotherapy,
2. Massage,
3. Joint manipulation and mobilization to reduce pain and stiffness,
4. Hot and cold packs and electrotherapy to reduce swelling, relieve pain, speed up healing process and so on,
5. Muscle re-education,
6. Airway clearance technique with breathing exercises to assist people with a variety of breathing difficulties and assistance and the use of aids like crutches, canes, wheelchairs and so on.

In order to know whether these techniques above are also being used on the PHIC, so the study of importance of physiotherapy on these children is worth investigating.

Statement of the problem

Part of being physically fit is to be able to move from one place to another and some of PHIC have these mobility problems. This study set to investigate the importance of physiotherapy on the physically and health impaired children.

Scope of the study

The study covered Federal College of Education (Special), Oyo, Oyo State, Nigeria. This College was chosen because PHIC are also found in this institution, being the only special college in the Sub-saharan Africa. PHIC are found in all the three levels of the School of Special Education which is one of the schools in the institution and all students pass through the school.

Research Questions

1. How important is physiotherapy to the physically and health impaired children?
2. Does physiotherapy have any effect on the physically and health impaired children?
3. Does physiotherapy provide any role to the PHIC?

Methodology

The study made use of descriptive survey research design. The sample consisted of twenty (20) physically and health impaired students who were recruited through random sampling technique.

A 20-item structured questionnaire tagged "The Importance of physiotherapy to the physically and health impaired questionnaire" was used to collect data for the study. It consists of two sections, section A and B. Section A required respondents personal background information that include sex, age, marital status, and level while section B contains items, data of which when collected will give clues to the research questions to justify study's objectives. The questionnaire was validated by given it to

experts in the field of education to correct, modify, remove and add some things before the final copy was produced. Twenty copies of the validated questionnaire were produced and randomly administered by the researcher to the physically and health impaired students in all the three levels during their lectures. They were allowed some time to fill it after which they were collected. All were returned. The responses were presented in table 1 below and simple percentages were used to analyze them.

Results

Table 1: Data from responses of participants to items 1 – 20 on the questionnaire

S/N	ITEMS	RESPONSES					
		YES	%	NO	%	TOTAL	
1	Do you think all physically and health impaired children (PHIC) need physiotherapy skills and services?	18	90	2	10	20	100
2	Do Physiotherapists recommend mobility aids for the PHIC?	17	85	3	15	20	100
3	Have you benefitted from physiotherapy services before?	19	95	1	5	20	100
4	Do you think without physiotherapy, the life of PHIC will be useless?	15	75	5	25	20	100
5	Do the roles of physiotherapy in the life of PHIC be overlooked?	16	80	4	20	20	100
6	Do PHIC are able to live their lives joyfully through the help of physiotherapy?	20	100	0	0	20	100
7	Does physiotherapy use a variety of techniques to help muscles, bones and joints of PHIC work to their full potential?	20	100	0	0	20	100
8	Does physiotherapy help in early identification and diagnosis of PHIC?	12	60	8	40	20	100
9	Physiotherapy skills are meant for PHIC alone	8	40	12	60	20	100
10	Does physiotherapy help parents to become skillful in assisting their PHIC?	14	70	6	30	20	100
11	Does physiotherapy contributes immensely to social adjustment of the PHIC in the societies?	12	60	8	40	20	100
12	Are massage, stretching and hydrotherapy are some of the approaches employed by physiotherapists for PHIC?	19	95	1	5	20	100
13	Do physiotherapy have adequate equipment and facilities to help PHIC?	16	80	4	20	20	100
14	Are Physiotherapists are involved in multidisciplinary team working with other health professionals to help PHIC enjoy their life to the full?	18	90	2	10	20	100

15	Do physiotherapists teach PHIC how to use prostheses and wheelchairs in order to reduce pain and encourage mobility?	20	100	0	0	20	100
16	Do physiotherapists prescribe walking aids for PHIC	20	100	0	0	20	100
17	Do physiotherapists work with client to learn how to manage his/her condition independently?	18	90	2	10	20	100
18	Does physiotherapy enhance your mobility?	18	90	2	10	20	100
19	Has physiotherapy solved a lot of your problems?	18	90	2	10	20	100
20	Did physiotherapy skills have effect on your muscles, bones and joints?	19	95	1	5	20	100

Discussion of Results

Research Question 1: How important is physiotherapy to the PHIC?

The data collected from responses to items 1, 2, 4, 5, 6, 7, 8, 12, 16, 17 and 20 in table 1 above revealed that physiotherapy is very important to the physically and health impaired children. The responses showed that physiotherapy helps PHIC to relieve pains, enhance their mobility, live independently so that they can contribute their own quota to the society they belong. This finding is in line with what David (2004) documented that physiotherapy restores, maintains and promotes general fitness and health of people which shows that, it is very important in the lives of all including PHIC.

Research Question 2: Does physiotherapy have any effect on PHIC?

The data collected from responses to items 18, 19 and 20 in table 1 above revealed that physiotherapy has effect on muscles, bones and joints problems being experienced by PHIC. The effect is being felt when their pain are reduced, their joints mobilized and they are able to live independently. This agrees with the opinion of Dorman and John (2000) that, physiotherapy helps to reduce pain, encourage mobility and teach people how to use prostheses, crutches, wheelchairs and other adaptive devices. Physiotherapists prescribe walking aids and other adaptive devices for PHIC to improve functioning.

Research Question 3: Is there any role being played by Physiotherapists for PHIC?

The responses to items 4 and 10 revealed that physiotherapy plays a major role in the life of PHIC. Responses to item 4 showed that 80% of the respondents said the roles of physiotherapy to the PHIC cannot be overlooked. This is in line with Deploy (2004) submission that physiotherapy plays important roles in the rehabilitation of physically impaired by assisting them to learn how to use parts of the body and develop physical skills, helping them to become mobile independently or by using equipment.

CONCLUSION

The study has investigated the importance of physiotherapy on PHIC. It can be concluded from the findings of this study that the importance of physiotherapy over physically and health impaired cannot be overemphasized. It helps to relieve their pains, improve their joint mobility from one place to another, prevent or correct deformities if already present; restores, maintains and promotes their general fitness and health; and live independently. Therefore, physically and health impaired children who undergo physiotherapy are better off in living a meaningful and joyful life than those who did not.

REFERENCES

- Charlotte, P. (2006). *Direct payments and personalization of care*. Edinburgh: Dunedin Academy Press.
- Chartered Society of Physiotherapy (CSP). (2002b). *The exercise of clinical judgment and informed interpretation is at its core*. Edinburgh: Dunedin Academy Press.
- David, J. (2004). *An introduction to disability studies* (2nd ed.). Ibadan: Codat Publication.

Deploy, E., & Gilson, S. (2004). *Re-thinking disability: Principles for professional and social change*. Pacific Grove, CA: Wadsworth.

Dorman, E. O., & John, P. A. (2000). *Caring for children with cerebral palsy: A team approach*. U.S.A.: PH Brookes.

Gardiner, A., & Turner, P. A. (2000). *Children with disabilities* (4th ed., pp. 60–101). Upper Saddle River, NJ: Pearson Education.

Obani, T. C. (2004). Handicap disability and special education: What parents and teachers want to know. *The Exceptional Children*, 5(3).

Smith, R. M. (2001). *Introduction to special education: Teaching age of opportunity* (4th ed.). Needham, MA: Allyn & Bacon.