Awareness and Knowledge of Physiotherapy among General Public, College and School Students in Coimbatore City

Jency thangasheela G^1 , Kavi Arasu², Macklin Abraham Navamani J^3

¹ Professor, Department of Physiotherapy and Rehabilitation Centre, Faculty of Physiotherapy, Cherraan's College of Physiotherapy, Coimbatore 641039,

²Assistant professor, Department of Information Technology, Karunya Institute of Technology and Sciences, Coimbatore 641114,

³ Clinical Instructor, Bachelor of Physiotherapy, Cherraan's College of Physiotherapy, Coimbatore 641039,

ABSTRACT:

BACKGROUND

In the health care sector professions like those of doctors and nurses are well known than the other paramedical professions like physiotherapy however the physiotherapist plays a major role in providing health care and it is highly recognized profession worldwide. Physiotherapy is a health care profession engaged with human function and movement and maximizing potential.

AIM AND OBJECTIVES:

The main aim of the study is to investigate the level of awareness and knowledge of physiotherapy among general public, college and higher secondary school students in Coimbatore.

METHODOLOGY

500 subjects were selected, by convenient sampling method in the age group 17-45 years. After explaining about the survey procedure and informed consent was obtained. Physiotherapy awareness task were given among students of pharmacy, nursing, arts and school students. Knowledge about physiotherapy and its relevant tasks were given to the students and public then the information's were interpreted with percentage

CONCULSION:

Participants in this study demonstrated a moderate level of awareness in knowledge of physiotherapy and physiotherapy services .the higher secondary and college students need more information and awareness regarding physiotherapy, its uses in treating conditions other than orthopedic disorders. There is a need for a program to educate the higher secondary and college students and general public in Coimbatore city about physiotherapy both as a mode of treatment and as a prospective career pathway.

Date of Submission: 02-05-2021

Date of Acceptance: 16-05-2021

I. Introduction

In the health care sector professions like those of doctors and nurses are well known than the other paramedical professions like physiotherapy however the physiotherapist plays a major role in providing health care and it is highly recognized profession worldwide.Physiotherapy is a health care profession engaged with human function and movement and maximizing potential. Also physiotherapists work in a worldwide ranging of health settings including intensive care, mental illness, stroke recovery, occupational health and care of the elderly. Physiotherapy is one of oldest profession in health care practiced since 460BC by great physicians such as Hippocrates and Galen. Events such as first world war, polio outbreak, increasing disabilities leads to rapid progression and modernization of physiotherapy from 18th century. According to world confederation of physical therapy is concerned with identifying and maximizing quality of life and movement potential within the spheres of promotion, prevention, treatment and rehabilitation. This encompasses physical, psychological, emotional and social wellbeing. Physical therapy involves the interaction between the physical therapists, patients, other health professionals, families, care givers and communities in a process where movement potential is assessed and goals are agreed upon using knowledge and skills unique to physiotherapist.

According to the reports of world health organization, the number of aging people will increase from the year 2000 to 2050 worldwide. This will decline the economic growth worldwide. As physiotherapy plays a major part in rehabilitation of aging people, interest in this profession is also accepted to increase globally in the future. A majority of school children are also unaware about career opportunities are open to them and most of them analyze their career aspects. Until, recently state universities offered only a limited number of degree programs for the students who obtained good results at the advanced level examination in biology stream at the end of their high school careers. Those where medicine, dentistry, veterinary, agriculture and bio sciences. Although a number of new courses including physiotherapy and other paramedical sciences, nursing, molecular biology have been introduced in the recent years, public awareness about these courses seems to be not yet adequate. As a result most parents and teachers still press the biology stream students to enter medical course subjecting them to unnecessary mental and physical stress. Physiotherapy is an internationally recognized health profession which may be practiced by qualified and, where required by state or national legislation, duly registered or licensed physiotherapists only. It is a dynamic profession which uses a range of treatment techniques to restore movement and function within the body. Physiotherapist promote the health and well-being of individuals and also prevent impairment functional imitations, and disability in individuals due to health on medically related factors, socio-economic stressors and life-style factors.

Over the last decade there have been major criticisms of the "disease concept" of health case with its emphasis on the treatment of the individual's symptoms. At the same time there has been an orientation towards preventative and rehabilitation aspect of health care, where the focus is on team intervention at the community level. A role for the physiotherapy in this new system of community healthy has been recognized in Australia and oversea (in 1976). They also work to combat a broad range of physical problems, in particular those associated with neuromuscular, musculoskeletal, and cardiovascular and respiratory system. Physiotherapy is a growing profession in Ghana, west-Africa, through it was first introduced into the country in 1944 by a British expatriate. The services are not readily available throughout the country because there are less than 200 practicing physiotherapists (as at june 2011) for a population of 24 million. These few physiotherapists provide services either in public hospitals or private clinics, or in rehabilitation centers, residential homes, and health spas. Although physiotherapy has a great role to play in the society, it seems to lack a clear identity with the public who demonstrate limited awareness and understanding of the scope of the profession's role and having difficulty differentiating it from alternate practitioners.

How can physiotherapy profession be made known and utilized by the public if a pool of aspirating profession seekers is not aware of it existence? A number of studies have been conducted to ascertain the general public's awareness and knowledge of physiotherapy. The purpose of the present study was to survey the awareness of the public and to determine whether factors such as socio-economic area of residence, medical conditions, or the extend of previous contact with the physiotherapy profession were related to the respondent's knowledge. This cross- sectional descriptive study was undertaken to assess the level of awareness and knowledge about physiotherapy among the general public, paramedical students and arts and science students in cherraan's college of physiotherapy

II. Aim And Objectives:

The main aim of the study is to investigate the level of awareness and knowledge of physiotherapy among general public, college and higher secondary school students in Coimbatore.

2.1 NEED FOR THE STUDY:

The basic awareness about physiotherapy among higher secondary and college students is not satisfactory. Many of them believe physiotherapy is practiced by doctors, it indirectly depicts majority of the college and higher secondary students are not aware physiotherapy is a unique profession and practiced by physiotherapist so we are in the need to find out the level of awareness and knowledge of physiotherapy among higher secondary and college students, this will help them to find the career opportunity and increase the awareness of physiotherapy.

III. Materials And Methodology

3.1 MATERIALS USED:

Pencil and Paper

METHODS

3.2 STUDY DESIGN:

Descriptive, observational study design, survey in nature.

3.3 STUDY SETTING:

The study was conducted in cherraan's institute of health science & Arts College and Vasavi vidhyalaya Matriculation and higher sec school.

3.4STUDY DURATION:

The study was conducted for a period of 6 months.

3.5 POPULATION:

500 participants were included in this study.

STUDENTS;

Pharmacy students - 100 Nursing students - 100

Arts stuc	lents	- 100			
School s	tudents	- 100			
General	Public	-100			
3.6SAM	PLING:				
Conveni	ent Sampling				
3.7 MEA	ASUREMENT T	OOL:			
Question	naire's Task				
3.8 STA	3.8 STATISTICAL ANALYSIS:				
The collected data will be analyzed by frequency and percentage					
3.9 CRITERIA FOR SELECTION OF SUBJECTS					
INCLUSION CRITERIA:					
*	✤ 17-45 years				
*	The subject need	s to know to read.			

- Selected only coimbatore peoples.
- The selected subjects must have minimum qualification of 12^{th} standard.

EXCLUSION CRITERIA:

- Other district peoples were excluded
- Avoided below 17 years peoples

3.10 PROCEDURE:

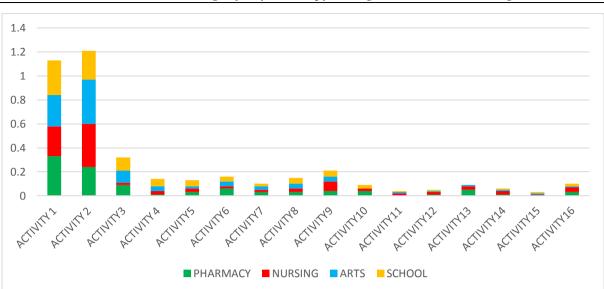
✤ 500 subjects were selected, by convenient sampling method in the age group 17-45 years. After explaining about the survey procedure and informed consent was obtained. Physiotherapy awareness task were given among students of pharmacy, nursing, arts and school students. Knowledge about physiotherapy and its relevant tasks were given to the students and public then the information's were interpreted with percentage

IV. Data Analysis

The collected data will be analyzed by frequency and percentage Awareness of physiotherapy regarding activities performed by Physiotherapists (In Pharmacy, Nursing, Arts and School students)

ACTIVITIES	PHARMACY	NURSING	ARTS	SCHOOL
1 Teaches exercise to strengthen muscles	0.33	0.25	0.26	0.29
2. Gives massage	0.24	0.36	0.37	0.24
3. Teaches people how to use artificial limbs	0.09	0.02	0.1	0.11
4. Teaches people to walk	0.01	0.03	0.04	0.06
5. Uses complex electrical equipment	0.03	0.03	.0.02	0.05
6. Teaches people to breath properly	0.06	0.02	0.04	0.04
7. Gives swimming lessons	0.03	0.02	0.03	0.02
8. Gives prenatal exercise to pregnant women	0.03	0.03	0.04	0.05
9. Takes x ray	0.04	0.08	0.04	0.05
10. Does the same work as a chiropractor does	0.04	0.02	0	0.03
11. Helps people with craft work	0	0.02	0.01	0.01
12. Assists doctor during operations	0.01	0.02	0.01	0.01
13. Helps people to speak properly	0.05	0.03	0.01	0
14. Prescribes medicine	0.01	0.03	0.01	0.01
15. Can test a person intelligence through an examination	0	0.01	0.01	0.01
16. Treats bunions and corns on feet	0.03	0.04	0.01	0.02

TABLE: 1



Awareness and Knowledge of Physiotherapy among General Public, College And School ...

GRAPH: 1



Information center		Responsible members	Percentage	
1.	paramedical	10	0.10	
2.	Physician	24	0.24	
3.	Newspaper	19	0.19	
4.	Radio	10	0.10	
5.	Tv	20	0.2045	
6.	Others	17	0.17	

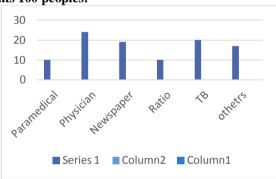


TABLE: 2GRAPH: 2II.Knowledge Of Where Physiotherapy Service Can Be Received

Physiotherapy service centers		Responsible members	Percentage	
1.	Hospital	33	0.33	
2.	Fitness	22	0.22	
3.	Rehabilitation	05	0.05	
4.	Primary health	15	0.15	
center				
5.	School	01	0.01	
6.	Others	17	0.17	

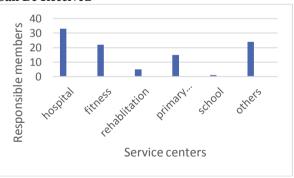


TABLE: 3



III. Knowledge of Disorders Treated By Physiotherapist

	Disorders	Responsible members	Percentage
1.	Blood	05	0.05
2.	Bones and joints	26	0.26
3.	Brain	08	0.08
4.	Heart	12	0.12
5.	Muscle	27	0.27
6.	Cardio respiratory	07	0.07
7.	Skin	03	0.03
8.	Urinary system	12	0.12

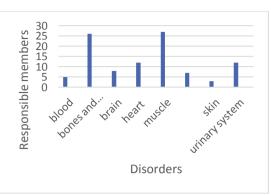


TABLE: 4



IV. KNOWLEDGE OF TREATEMENT MODALITIES USED IN PHYSIOTHERAPY

Modalities		Responsible members	Percentage	
1.	Ice	07	0.07	
2.	Electric	18	0.18	
3.	Exercise	11	0.11	
4.	Heat	14	0.14	
5.	Massage	21	0.21	
6.	Water	11	0.11	
7.	Others	18	0.18	

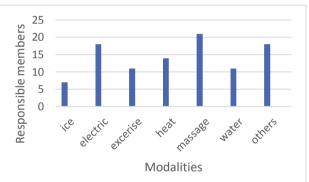


TABLE: 5

GRAPH: 5

V. Results And Discussion DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

✤ A Total Number Of 500 Respondents Comprising 400 Students And 100 Public Participated in This Study.

Students were aged between 17-22 and the public were aged 17-45.

The highest number of participants age range is 17-25.

The highest humber of participants age range is 17 20.			
AGE IN YEARS	NUMBER OF PARTICIPANTS		
17-22	420		
17-45	80		
	. •		
TADIE.6			

TABLE: 6

Awareness of Physiotherapy Regarding Activities Performed By Physiotherapists

IN PHARMACY STUDENTS: (0.33%) responded that they thought physiotherapists taught exercises to strengthen the muscles, (0.24%) responded that physiotherapists gives massage, (0.09%) teaches people how to to use artificial limbs, (0.01%) teaches people to walk, (0.03%) uses complex electrical equipment, (0.06%) teaches people to breath properly, (0.03%) gives swimming lessons, (0.03%) gives prenatal exercise to pregnant women, (0.04%) takesx rays, (0.04%) does the same work as a chiropractor does, (0%) helps people with craft work, (0.01%) assists doctor during operations, (0.05%) helps people to speak properly, (0.01%) prescribes medicines, (0%) can test a persons intelligence through an examination, (0.03%) treats bunions and corns on feet.

IN NURSING STUDENTS: (0.25%) responded that they thought physiotherapists taught exercises to strengthen the muscles, (0.36%) responded that physiotherapists gives massage, (0.03%) teaches people how to to use artificial limbs, (0.03%) teaches people to walk, (0.03%) uses complex electrical equipment, (0.02%) teaches people to breath properly, (0.02%) gives swimming lessons, (0.03%) gives prenatal exercise to pregnant women, (0.08%) takes x rays, (0.02%) does the same work as a chiropractor does, (0.02%) helps people with craft work, (0.02%) assists doctor during operations, (0.03%) helps people to speak properly, (0.03%) prescribes

medicines, (0.01%) can test a persons intelligence through an examination, (0.04%) treats bunions and corns on feet.

IN ARTS STUDENTS: (0.26%) responded that they thought physiotherapists taught exercises to strengthen the muscles, (0.37%) responded that physiotherapists gives massage, (0.01%) teaches people how to to use artificial limbs, (0.04%) teaches people to walk, (0.02%) uses complex electrical equipment, (0.04%) teaches people to breath properly, (0.03%) gives swimming lessons, (0.04%) gives prenatal exercise to pregnant women, (0.04%) takes x rays, (0%) does the same work as a chiropractor does, (0.01%) helps people with craft work, (0.01%) assists doctor during operations, (0.01%) helps people to speak properly, (0.01%) prescribes medicines, (0.01%) can test a persons intelligence through an examination, (0.01%) treats bunions and corns on feet.

IN SCHOOL STUDENTS: (0.29%) responded that they thought physiotherapists taught exercises to strengthen the muscles, (0.24%) responded that physiotherapists gives massage, (0.11%) teaches people how to to use artificial limbs, (0.06%) teaches people to walk, (0.05%) uses complex electrical equipment, (0.04%) teaches people to breath properly, (0.02%) gives swimming lessons, (0.05%) gives prenatal exercise to pregnant women, (0.05%) takes x rays, (0.03%) does the same work as a chiropractor does, (0.01%) helps people with craft work, (0.01%) assists doctor during operations, (0.%) helps people to speak properly, (0.01%) prescribes medicines, (0.01%) can test a persons intelligence through an examination, (0.02%) treats bunions and corns on feet. These findings indicate that, at least in terms of the present sample, the student and public confuse many of the functions of physiotherapists with those of other health professionals'. This is consistent with the suggestions of Carlye-Gordge(1974) that public education regarding physiotherapy is a worthwhile goal for the profession.

• In Europe, majority of public and student are aware of physiotherapy services and have knowledge on what the profession entails, such that there is a high demand for the services of physiotherapists among the people.

In Australia, physiotherapists enjoy professional autonomy and the level of awareness is high

• In japan many high school students lack appropriate information about the physiotherapy profession and are therefore unaware of the vast career opportunities open to them.

• In Ghana, anecdotal reports suggested low level; of awareness and knowledge of physiotherapy and it appears that the profession lacks a clear identity with the public despite the great role it plays in the society..

• In our study the pharmacy and school students mostly expressed that physiotherapist teaches exercise and strengthening muscle.

Nursing and arts students mostly expressed that physiotherapist gives massage therapy

• In our study, data shows there is a less awareness about physiotherapy treatment like (teaches people how to use artificial limbs, teaches people to walk, teaches people to breath, gives prenatal exercises).so it suggests us to create awareness, among public and students.

• In this research we observed as : the students were not much aware of physiotherapy as a treatment method and its applications in disease conditions other than orthopedic conditions .

• .In Coimbatore people are not aware that physiotherapy can come under first degree of referral.

• Here we conclude that, in Coimbatore need to maintain and even build upon the level of awareness of their profession among the general public and student in the city. A positive outlook about the profession will go a long way to boost their clinical practice and enhance the growth of the profession in the country.

 $\bullet \qquad \text{The reason for the paramedical students having a higher awareness of physiotherapy is very likely due to their greater exposure to information on science oriented careers. In fact, career information resources for high school students lists the physiotherapy profession as one of the science oriented profession. This fact is also backed by the result for the science students on their source of information concerning physiotherapy in this study.$

RESPONDS SOURCES OF INFORMATION ABOUT PHYSIOTHERAPY SERVICES Total number of participants 100 peoples .the source of information about physiotherapy services included information obtained from physician (0.24%), TV (0.20)%, Newspaper (0.19)%

I. KNOWLEDGE OF WHERE PHYSIOTHERAPY SERVICE CAN BE RECEIVED Majority of the respondent (0.33%) stated that physiotherapy service can be received in hospitals,(0.22%)were of the opinion it can be received in fitness while (0.17%) stated that physiotherapy service can be obtained in others.

II. KNOWLEDGE OF DISOREDERS TREATED BY PHYSIOTHERAPIST Majority of the respondents gave the response that physiotherapist treats disorder affecting muscles(0.27%), while (0.26%) treat disorder affecting bones and joints, (0.12%) believed that physiotherapists treat are manage disorder of heart and urinary system

III. KNOWLEDGE OF TREATEMENT MODALITIES USED IN PHYSIOTHERAPY Majority (0.21%) had the knowledge that physiotherapists employ as the main and frequently used modality for treatment while (0.18%)knew that physiotherapist use electric and others as modality for treatment. According to the respondents heat(0.14%) were the least known modalities employed by physiotherapists in treatment.

• In our study Majority of peoples respondents state that physiotherapy service can be received in physician -0.24%.

 \diamond 0.33% of peoples in physiotherapy service can be received in hospitals.

Majority of people's respondents gave the response that physiotherapists treat bones and joints-0.26%.

Although physiotherapy has a great role to play in society So there is a need for a program to educate the school and college students and general public and make them familiar about physiotherapy both as a mode of treatment and as a prospective career pathway

VI. Conclusion:

Participants in this study demonstrated a moderate level of awareness in knowledge of physiotherapy and physiotherapy services .the higher secondary and college students need more information and awareness regarding physiotherapy, its uses in treating conditions other than orthopedic disorders. There is a need for a program to educate the higher secondary and college students in Coimbatore city about physiotherapy both as a mode of treatment and as a prospective career pathway.

Bibliography

- [1]. World's confederation for physical therapy declaration of principles. Available at <u>www.wept.org.Accessed</u> 10th june 2011.
- [2]. Chartered society of physiotherapy .what is physiotherapy? Available at <u>www.csp.org.uk</u>. Accessed 13th june 2011.
- [3]. Moore WE. The professions: roles and rules. New York, Russell sage foundation, 2005.
- [4]. Higgs J. Refshauge k. Ellis E. portrait of the physiotherapy profession: Profile of the professions. Journals of Inter professionals care 2001:15:79-89.
- [5]. Steins AS, O'Young B, young AM. Person centered Rehabilitation: Interdisciplinary Intervention to Enchance patient enablement. In O'YoungBJ, young AM and steins AS physical medicine and Rehabilitation secrets (2nd edition). Philadelphia, Harley and belfusinc, 2001.
- [6]. Rothstein J Mautonomy and dependency physical therapy 2002:82:750-751.
- [7]. Ghana statistical service.2010 population and housing census. Available at www.ghana.gov.gh/. Accessed 5thjune 2011.
- [8]. Whitfield TWA,AllisonI,laing ,A Turner PA. perceptions of the physiotherapy profession: A comparative study, physiotherapy theory and practice 1996:12:39-48.
- [9]. Hunt A adamson B, harris L, physiotherapists' perceptions of the gap between education and practice . physiotherapy theory and practice 1998:14:125-138.
- [10]. Sheppard L, public perception, implications for marketing Australian journal of physiotherapy 1994:40:265-271.
- [11]. Japan physiotherapy association. Physiotherapy. Available at www.soc.nii.ac.jp/jpta.Accessed on 13thjune 2011.
- [12]. Lee k.sheppard L. An investigation into medical students knowledge and perception of physiotherapy services.australian journal of physiotherapy 1998:44:239-245.
- [13]. Edwards L. clinical reasoning in three different fields of physiotherapy :Qualitative case study approach. Available at www.physiotherapy.asn.au.accessed 5th june2011.
- [14]. Turner p. The occupational presige of physiotherapy : perceptions of student physiotherapists in Australia . Australian journal of physiotherapy 2011:17:191-197.
- [15]. Claude L,Dalley J. Providing a safety net: fine tuning preparation of undergraduate physiotherapists for contemporary professional practice .learning in health and social care 2002:1:191-201.
- [16]. CrosbieJ.GassE.sullivanJA,WebbG,wright T, sustainable undergraduate education and profession competency, Australian journal of physiotherapy 2002:48:5-7.
- [17]. OgiwaraS, Nozoe M, knowledge of physiotherapy : A study of Ishikawa High school students . Journal of physical therapy science 2005:17:9-16.
- [18]. Higgs J, Hunt A, Higgs C, Neubauer D, physiotherapy education in the changing international healthcare and educational contexts. Advance in physiotherapy1999:1:17-26.

Jency thangasheela G, et. al. "Awareness and Knowledge of Physiotherapy among General Public, College and School Students in Coimbatore City." *IOSR Journal of Sports and Physical Education (IOSR-JSPE,)* 8(3) (2021): 15-21.