

Awareness of Physiotherapy Among The High School Students

1. Corresponding Author: Dr.Amandeep Singh, Department of physiotherapy, Baba Farid University of Health Science (Faridkot), India,
2. Contributing Author (1): Yadwinder Singh, Department of physiotherapy, Baba Farid University of Health Science (Faridkot), India,
3. Contributing Author (2): Simran Grewal, Department of physiotherapy, Baba Farid University of Health Science (Faridkot), India,

ABSTRACT

Background: Globalization is having a significant impact on health care and the demands put on the health professions are increasing day by day. In the healthcare sector, professions like those of Doctors and Nurses are well known than the other paramedical professions like Physiotherapy. Physiotherapy plays a major part in various conditions. The demand of the physiotherapy continues to increase with increase in aging population. Despite the tremendous growth in the field, researchers have documented that the public especially the students does not understand the different aspects of this profession. It is mandatory to give appropriate information about the various professions to the higher secondary students so that it would be useful in choosing their career pathway.

Methods: The study was Descriptive in nature. The samples were taken through the purposive sampling technique. The subjects were taken from various schools. 300 samples were collected. A detailed explanation of research and purpose of the study were given and the informed consent were obtained from all participants.

Results: The data was meaningfully assorted. The results came out positively proves that the high school students of Ludhiana had a great knowledge about the every aspect of physiotherapy.

Conclusion: Awareness of physiotherapy was found to be increasing amongst the science students who participated in the study. Mass media was considered to be the most influential source of information and many respondents cited television as the source of information.

Keywords: Physiotherapy, Awareness, Paramedical profession, Healthcare System, Musculoskeletal, Neurological conditions.

Introduction:

Globalization is having a significant impact on health care and the demands put on the health profession are increasing, these developments necessitate changes in healthcare services and the effective use of appropriate health professionals, hence there is a demand both internally within the profession and externally from other health care disciplines and third party payers that physiotherapy is recognized as providing relevant and valid knowledge that can be applied in a changing environment [1]. In a less than a century, the profession of physical therapy has evolved rapidly, extending the scope of its functions, treatments and settings as well as the responsibilities conferred to its practitioners by adapting to changing demographic, social and political environment [2]. In the healthcare sector, professions like those of Doctors and Nurses are well known than the other paramedical professions like Physiotherapy [3]. As physiotherapy plays a major part in rehabilitation of aging people, interest in this profession is also expected to increase globally in the future [4]. Physiotherapy has emerged not only as an important medical and rehabilitative complement in health care delivery but also as a health profession with a vital therapeutic tool that employs defined scientifically-based protocols, and is an integral part of the treatment of most patients, it is widely used in health institutions, private practices, schools, sports and work place settings [5]. Physiotherapy is one of the oldest and significant parts of a loosely defined group referred to as allied health professionals [6]. Physiotherapy is a science based health care profession in which principles from biological, physical and behavioural sciences are integrated and applied that concerned with health promotion, prevention of disease or injury, treatment & rehabilitation [7]. The demand to the physiotherapy continues to increase, due to the increasing of aging population. The University Grant Commission (UGC) has started degree program in physiotherapy to address this demand in 2007, by providing high school level science students to enter this program based on the grade achieved from the advanced level exam [8]. Indian Association of Physiotherapists described physiotherapy as physiotherapeutic system of medicine, which includes examination, treatment, advice, and instructions to any person preparatory to or for the purpose of or in connection with movement dysfunction, bodily malfunction,

physical disorder, disability, healing and pain from trauma and disease, and physical and mental conditions using physical agents [9]. The role of a Physiotherapist is to deal with application of physiotherapy skills & knowledge to the assessment, design, delivery & evaluation of physiotherapeutic treatments in the management of the various conditions of acute or chronic, chronic sickness, disability or handicap [10]. Also physiotherapists work in a wide-ranging of health settings including intensive care, mental illness, stroke recovery, occupational health, and care of the elderly. Physiotherapy is certainly far more than fixing musculoskeletal sports injuries although that is perhaps the most common perception of the profession.

The main concern of physiotherapy is rehabilitation which is defined as “The restoration of an individual part or parts back to normal or near normal function after a disabling disease, injury, addiction or incarceration [8]. History suggests that physical therapy was being administered even before the term ‘Physical therapist’ was coined. Physicians like Hippocrates and Galen, who are considered as the first practitioners of physical therapy; supported techniques which are widely used now, with outstanding results, for massage, manual therapy, and hydrotherapy to treat people in the 460 BC [11]. In a study completed in some European countries it is shown that the students of physiotherapy in the choice of their profession are pretty influenced by the prestige of the profession, though this is subjective to the countries of origin and also related to differences in legislation [12]. The practice of physiotherapy as a first contact profession is not common in India. Physiotherapists often mainly depend on referrals from physicians from the different fields of practice of medicine. The practice of „prescribing physiotherapy“ by most physicians has been of great concern to physiotherapists“ worldwide [5]. The profession of physical therapy has been in existence for many decades and is currently experiencing unprecedented growth. Yet even the tremendous growth in the field, researchers have documented that the public does not understand the different aspects of profession [13]. Although, a large number of schools, universities and other higher education institutes, clubs etc. in Sri Lanka are involved in numerous sports programmes, only a handful of them are obtaining the regular services of a physiotherapist unless they have injured players/athletes. Unfortunately, this is even true for most of the national teams [14]. The availability of factual information about the profession is an influential factor in making career decisions. It is mandatory for the policy makers to give appropriate information about the various professions to the higher secondary students so that it would be useful in choosing their career pathway [15].

When planning one's future career, it is important to have information about various occupations and professions that are related to his/her field of study. Even though a few people have an idea about their future career pathways in advance, majority of them are uncertain about it [4]. When an individual makes a career choice, therefore, it is intended to be a long standing decision and should be given much thought, consideration and careful planning. Individuals vary with regards to the time at which they make career choices [16]. However these earlier studies were mainly aimed at students who had already entered school of physiotherapy, physiotherapy consumers, healthcare professionals and general public and not specifically at high school students who need to make decision about their career [17].

Till now several studies have been documented to evaluate the awareness or perception of physiotherapy among the high school students in different areas. However till date no study has been done to find the awareness of physiotherapy treatment method among the high school students or to check the perception of physiotherapy among high school students or To assess the awareness in physiotherapy as a career and treatment method or To determine the knowledge of physiotherapy profession and its applications in patient management. Therefore the present study aimed to investigate the level of awareness regarding various aspects of physiotherapy among high school students.

Material and Methods

The Descriptive study design was taken. The samples were taken through the purposive sampling technique. The subjects were taken from various schools. The total samples count was 300. High School Students with proficiency in English who were agreed to participate willingly were included. The subjects who refused to give informed consent were excluded from the study.

Procedure:

The present study was a survey which was conducted in Ludhiana. A survey was done to find the awareness of physiotherapy among high school students. As per the inclusion and exclusion criteria participants were selected for the study. After addressing, a detailed explanation of research and purpose of the study were

given to each participant and their all queries were answered with satisfaction and there after the informed consent were obtained from all participants.

Description of Measurement Tools

Questionnaire on the awareness of physiotherapy: the questionnaire containing three parts, part A, B and C. Part A consisted of subjective information of the students including Name, age, gender and class. Part B consisted of seven close ended questions which has four sub questions under each to evaluate the awareness about physiotherapy. Those questions were to assess the awareness in physiotherapy as a career and as a treatment method in sports and other disease conditions. Each sub question contained three responses (yes, no and don't know). Part C consisted of a close ended question with multiple responses to identify the source of information regarding the physiotherapy profession.

RESULT

Table 1 represents the part B of the questionnaire in which 69% of the students assumed that the physiotherapy is practiced by the doctors, 43% and 53% of students think that acupuncture is a branch of physiotherapy and Masseurs are physiotherapists respectively. 45% of students think that the treatment is Indigenous. On the contrary 23% of the students assumed that the physiotherapy is not practiced by the doctors, 36% and 29% of students think that acupuncture is not a branch of physiotherapy neither the Masseurs are physiotherapists respectively. 31% of students think that the treatment is Indigenous. 214 high school students donot know anything.

Table 2 represents that the majority of the students approximately 71% of the students were aware about the questions like physiotherapy treatment involved in rehabilitation of injuries, helps in improving quality of life of injured person, helps in improving fitness level of sportmen and help in regaining activities of daily living.

Table 3 shows that the majority of the students were having good knowledge about the electrical modalities and the equipments that are used in the physiotherapy setup.

Table 4 represents that more than 70% of students knew that one can get physiotherapy treatment from private clinics, Government Hospitals and Private Hospitals. Only 46% of students have an idea that physiotherapy services are also available in NGOs.

Table 5 shows that a minority number of students think that physiotherapy not includes Manual Therapy, Ice/heat, Hydrotherapy, Electrotherapy and exercise therapy whereas majority of students think that these all therapies are the part of physiotherapy.

Table 6 represents that majority of school students know that what are the reasons to visit the physiotherapist.

Table 7 shows that high school students are aware that in neurological conditions, Musculoskeletal conditions and for pediatric conditions physiotherapy has a great role to play whereas 48% of students are less aware that physiotherapy is also used in chest conditions.

Table 8, 9 & 10 represent the part C of the questionnaire.

Table no 1:

	Part B	Don't Know	No	Yes	Don't Know	No	Yes
		(%)	(%)	(%)	(f)	(f)	(f)
1. Physiotherapy is,	Practiced By The Doctors.	8%	23%	69%	24	68	208
	Acupuncture Is A Branch of Physiotherapy.	21%	36%	43%	62	108	130
	Masseurs Are Physiotherapists.	18%	29%	53%	54	88	158
	An Indigenous Treatment Method.	25%	31%	45%	74	92	134

Table No 2:

	Part B	Don't Know	No	Yes	Don't Know	No	Yes
		(%)	(%)	(%)	(f)	(f)	(f)
2. Physiotherapy,	Involved In Rehabilitation of Injuries.	11%	19%	71%	32	56	212
	Helps In Improving Quality of Life of Injured Person.	11%	15%	74%	32	46	222
	Helps In Improving Fitness Level of Sportsmen.	12%	17%	71%	36	50	214
	Helps In Regaining Activities of Daily Living.	13%	30%	57%	40	90	170

Table No 3:

	Part B	Don't Know	No	Yes	Don't Know	No	Yes
		(%)	(%)	(%)	(f)	(f)	(f)
3. Physiotherapy unit (Department of Physical Medicine) includes,	A Gymnasium With Exercising Machines, Gym Balls And Other Equipment.	17%	35%	48%	52	104	144
	Electrical Modalities.	18%	33%	49%	54	98	148
	A Section for Manual Treatments Using Bandages, Tapes And Splints.	11%	42%	47%	34	126	140
	A Therapeutic Pool.	28%	35%	37%	84	104	112

Table No 4

	Part B	Don't Know	No	Yes	Don't Know	No	Yes
		(%)	(%)	(%)	(f)	(f)	(f)
4. Places to get physiotherapy services,	Private Clinics.	13%	10%	77%	38	30	232
	Government Hospitals.	12%	25%	63%	36	76	188
	Private Hospitals.	9%	13%	77%	28	40	232
	NGOs.	19%	35%	46%	58	104	138

Table No 5:

	Part B	Don't Know	No	Yes	Don't Know	No	Yes
		(%)	(%)	(%)	(f)	(f)	(f)
5. Physiotherapy includes,	Manual Therapy	13%	13%	73%	40	40	220
	Ice/ Heat Therapy	17%	26%	57%	50	78	172
	Hydrotherapy	24%	31%	45%	72	94	134
	Electrotherapy And Exercise Therapy	11%	14%	75%	34	42	224

Table No: 6

	Part B	Don't Know	No	Yes	Don't Know	No	Yes
		(%)	(%)	(%)	(f)	(f)	(f)
6. Do you know when to meet the team physiotherapist?	When You Have An Injury	11%	37%	51%	34	112	154
	When There Is Pain Arising In Any Part With or Without A Known Cause.	15%	25%	59%	46	76	178
	When You Feel Pain or Discomfort In Any of The Sporting Technique.	13%	20%	67%	40	60	200
	When You Have Fever or Flu.	10%	73%	17%	30	218	52

Table No: 7

	Part B	Don't Know	No	Yes	Don't Know	No	Yes
		(%)	(%)	(%)	(f)	(f)	(f)
7.Uses of physiotherapy in any other conditions than in sport injuries	Neurological Conditions (Stroke, Parkinson)	19%	31%	50%	56	94	150
	Musculoskeletal Conditions (Osteo-Arthritis)	7%	14%	79%	22	42	236
	Pediatric Conditions (Cerebralpalsy)	29%	31%	41%	86	92	122
	Chest Conditions (Bronchitis)	18%	48%	34%	54	144	102

Table No: 8

	Part C	(%)	(f)
		Personal contacts	
	Family Member Was A Client	23.3%	70
	Friend Was A Client	9.7%	29
	I Was A Client	9.0%	27
	Friend Told Me	39.3%	118
	My Family Physician Told Me	16.7%	50
	Family Member Is A Physiotherapist	15.3%	46
	Friend Is A Therapist	20.0%	60

Table No: 9

	Part C	(%)	(f)
		Mass media	
	Television	47.0%	141
	Films	18.7%	56
	Internet	50.3%	151
	Newspaper or Magazine	47.3%	142
	Books	31.3%	94
	Advertisements	46.7%	140
	Radio	20.7%	62

Table No: 10

	Part C	(%)	(f)
		Career information resources	
	Teacher, Counsellor Coach	36.0%	108
	Career Literature	14.0%	42
	Visit To Physiotherapy School/Hospital/University	36.7%	110
	Career Day or Health Fair	16.0%	48
	Volunteer or Work Experience	18.7%	56

Discussion

In general, more than half (53.21%) of high school students were aware of physiotherapy profession and its applications in patient management. This finding suggested that the high school students in Ludhiana are much informed about physiotherapy as compared to the other studies and researches.

This could be probably due to the following factors:

- (1) Now, a BPT and MPT in Physiotherapy degree programme is being offered by the various state Universities and colleges in the Ludhiana. It is also good to hear that PhD courses are also advancing at its peak. Although today a diploma course are also being available but entrance to that is not directly based on the Advanced Level examination. So we can say that by this advancement, high school students are paying attention to this field.
- (2) The general public access to physiotherapy is also increasing day by day.
- (3) Availability of information regarding the scope of physiotherapy, both as a profession and as a treatment modality by various means. As a result, the awareness about physiotherapy seems to be increasing at its pace.

There are several studies conducted on the awareness of physiotherapy, one of the study Conducted on the Role of Physiotherapy in India – A Cross-sectional Survey to Study the Awareness and Perspective among Referring Doctors and concluded that there is a significant awareness about Physiotherapy & the various functions of Physiotherapy including a high number of informed references sent for Physiotherapy, preferably given in writing. Also a significant number of doctors let the physiotherapists decide the choice of treatment for the patients taking care to interact with the physiotherapists [18]. Another study on the Acceptability of physiotherapists as primary care practitioners and advanced practice physiotherapists for care of patients with musculoskeletal disorders concluded that respondents are quite satisfied with and have confidence in physiotherapists in their usual roles for the primary care management of MSK disorders [19]. There is a study conducted on an investigation into medical students, knowledge and perception of physiotherapy services and concluded that the high reputation physiotherapist have amongst the sample of sixth year medical students an

strong support they are prepared to give the physiotherapy profession in future referrals [20]. In this study many high school students thought that physiotherapy is practiced by either doctors (69%) or masseurs (53%). Also, 68% of students believe physiotherapy is an indigenous method of treatment (Table 1). So we are facing considerable challenges in delivering reliable and quality healthcare services across the nation. So we need to put more effort in this so that people come to know about physiotherapy more precisely. From table 2 we can say that majority of high school students are aware about the aims of physiotherapy which is in rehabilitation of injuries (71%), improving quality of life (74%), improving fitness level of sportsman (71%), and regaining activities of daily living (57%).

It is also evident from the results of this survey that a majority of the participants do have a clear idea about the scope of physiotherapy. For instance, 49% of the students were aware of availability of electrical modalities in physiotherapy units (table 3) and 70% of students knew that one can get physiotherapy treatment from private clinics, Government Hospitals and Private Hospitals (table 4). 73%, 57%, 45% and 75% of the students were aware about usage of manual therapy, ice/heat therapy, hydrotherapy and electro/exercise therapy respectively (table 5). Moreover, approximately 54%, 79%, 41%, 34% were aware about the use of physiotherapy in conditions like stroke or Parkinson, osteoarthritis, cerebral palsy and bronchitis (Table 7). It is necessary to increase more awareness about physiotherapy usage in fields like paediatrics and cardiopulmonary so that the later percentage is also increased in the future.

The satisfactory level of awareness about the scope and importance of allied health care professions such as physiotherapy is advancing. One reason for above finding may be due to that physiotherapy is now not limited only to the urban areas in Ludhiana and there is no limited availability of career information resources. However our present study is in the contrast with findings of Thusharika D, which showed that science students and healthcare aspiring students are less knowledgeable about physiotherapy and its scope in Sri Lanka [8].

Based on the analysis, television (47%), internet (50%), magazines/newspapers (47%) and advertisement (46%) are the highest rated sources of information regarding Physiotherapy (table 9). However, the fact that most of the students possess adequate and/ or accurate information regarding physiotherapy, both as a treatment modality and as a profession, suggest that even those sources are providing enough information.

After all, half of the general public is dependent on mass media for acquisition of information on their health and illness.

This study was designed to assess high school students' awareness and their sources of information on the physiotherapy profession. Awareness of physiotherapy was found to be increasing amongst the science students who participated in the study. Mass media was considered to be the most influential source of information and many respondents cited television as the source of information. Based on the findings of the survey, we can say that those who are in the profession of physiotherapy can play a more active role in educating the public which will be the aiding tool in the enhancement.

Conclusion

This study shows that Awareness of physiotherapy was found to be increasing amongst the science students who participated in the study. Mass media was considered to be the most influential source of information and many respondents cited television as the source of information

Conveniently, 300 participants among high school students were collected from the Ludhiana district. The investigator used a self-directed questionnaire with a permission. Each Participant was given a questionnaire to identify the awareness of physiotherapy among high school students. From the documents of the participants the researcher formed a data base for the total sample included in the study. From the data base, the following results were found

Limitations of study:

- All the data collected is related to the high school students which may be different from the reality.
- Subjects were taken only within age limit 15-18 years which doesn't prove the effects with others age groups.
- The study includes only high school students.

Future scope: The future scope of my study is to create more and more awareness about the physiotherapy scope and its treatment method. Further study can be done by increasing the number of subjects and even areas in Punjab.

References

1. Acharya RS, Khadgi B, Shakya NR, Adhikari SP, Basnet SMS, Sharma S et al .Physiotherapy awareness among clinical doctors in Nepal. *Journal of institute of medicine*. 2012: 1-146.
2. Prati V and Liu H. Perceptions of college students regarding the current physical therapy profession and professional education process. *The internet journal of Allied Health Sciences and Practice*. 2006; 4(4):1-6.
3. Greenwood N and Bithell C. Perception of physiotherapy compared with nursing and medicine amongst minority ethnic and white UK students: Implications for recruitment. *Physiotherapy. Journal of Physiotherapy*. 2005; 91(2):69-78.
4. Gotlib J, Bialoszewski D, Opavsky J, Garrod R, Fuertes NE, Gallardo LP et al. Attitudes of European physiotherapy students towards their chosen career in the context of different educational systems and legal regulations pertaining to the practice of physiotherapy: Implication for university curricula. *Physiotherapy*. 2011.
5. Abichandani D, Radia V. Awareness of Various Aspects of Physiotherapy among Medical Residents. *International Journal of Science and Research (IJSR)*. 2015; 4(10):1460-1465.
6. Emmanuel C, Joseph M and Esther O. Awareness, knowledge and professional identity of physiotherapy among residents of three rural communities. *Ghana journal of physiotherapy*. 2015; 6(1):1-14.
7. Agarwal Y, Agarwal M, Gupta N. Awareness of Physiotherapy among Higher Secondary Students and Perseverance among Physiotherapy Students and Professionals in Meerut - A survey. *Indian Journal of Physiotherapy and Occupational Therapy*. 2012; 6(1):176-177.
8. Thusharika D. Dissanayaka and Banneheka S. Awareness in Physiotherapy among High School Students. *International Journal of Scientific and Research Publications*. 2014; 4 (7): 1-5.
9. Bargaje PV, Bedekar NS, Rairikar S, Shyam A, Sancheti P. Perception of junior college students about Physiotherapy as a profession. *The Journal of Indian Association of Physiotherapists*. 2017; 11 (1):30-33.
10. Eckersley P, Grimley AM. Trent Regional Health Authority Physiotherapy. *The Physiotherapist in Pediatrics, Roles &Responsibilities*. 1989:9-15.

11. Agni P and Battin S. Awareness of physiotherapy among general practitioners. *International Journal of Physiotherapy*. 2017; 4(4): 253-261.
12. Prendushi H. Professional Prestige As My Physiotherapy Students Perceive It. *International Journal of Scientific and Technology Research*. 2017; 6(5):64-69.
13. Kallus K, Noble D, Bezner J and Keely G. An Assessment of High School Students- Knowledge of physical therapy and the factor that influence their knowledge. *Journal of Physical Therapy Education*. 1999; 13(1).
14. Ogiwara S and Nozoe M. Knowledge of physiotherapy: a study of Ishikawa High School students. *Journal of Physical Therapy Science*. 2005; 17:9-16.
15. Harikrishnan and Kamalambal. Awareness and Attitude towards Physiotherapy among higher secondary students – A Pilot Survey Study. *International Journal of Physiotherapy and Research*. 2017; 5(1):1846-51.
16. Martin S and Noel G. Secondary School Students Knowledge of Physical Therapy: The Trinidadian Scenario. *West Indian Medical Journal*. 2014; 63(2): 151-158.
17. Ogiwaria S and Nozoe M. Knowledge of physiotherapy- A Study of Ishikawa High School Students. *The Journal of Physical Therapy Science*. 2005; 17(1):9-16.
18. Shimpi A , Writer H , Shyam A and Dabadghav R. Role of Physiotherapy in India – A Cross-sectional Survey to Study the Awareness and Perspective among Referring Doctors. *Journal of Medical Thesis*. 2014; 2(2):18-22.
19. Ariel DC, Roy JS, Thibault J, Ciccone VT and François Desmeules. Acceptability of physiotherapists as primary care practitioners and advanced practice physiotherapists for care of patients with musculoskeletal disorders. *Bio medical central musculoskeletal disorder*. 2017;17: 400.
20. Lee K and Sheppard L. Investigation into medical students, knowledge and perception of physiotherapy services. *Australian journal of physiotherapy*. 1998; 44(4):239-235.