

Knowledge About Physiotherapy Profession Among High School Students

Arun B¹, Illakiya², Pavithra³, Amsa⁴, Maria Evangeline Preetha⁵, Akila⁶

¹ Professor, KG College of Physiotherapy, Coimbatore (Affiliated to The TN Dr MGR Medical University, Chennai),

²MPT, KG College of Physiotherapy, Coimbatore. ³ Apollo Hospital, Chennai, ⁴Physiotherapist, KG Hospital, ⁵

Physiotherapist, Tanjore, ⁶ Physiotherapist, Muthu's Ortho centre, Coimbatore

Email: barunmpt@gmail.com

Article Info

Article history

Received date: 2021-06-16

Revised date: 2021-08-03

Accepted date: 2021-12-22

Abstract

Physiotherapy is a branch of medicine and plays a vital role in preventing injuries, progression of health, and restoration of fitness. Professionally physiotherapy growth is much slower when compared with the other medical professionals, and the knowledge is low with the school students. This study is conducted to identify the knowledge of physiotherapy as a profession in school students. A descriptive study with 250 school students who are currently studying 10th grade & 12th grade were selected, and a self-designed questionnaire was circulated to them, and they have to answer on a 5-point Likert scale. One hundred seventy-five were eligible for the study, and data were analyzed using descriptive statistics. Results show that knew 50% about the sub-specialties, 70% & 60% have knowledge of treatment modalities and their uses in physiotherapy practice. This study concluded that high school students are having good awareness about physiotherapy as a profession. Further education to the schools is needed to enrich the knowledge about the physiotherapy profession to the school students.

Keywords:

Physiotherapy education; Professional course; School students; Perception of physiotherapy; knowledge on physiotherapy management

INTRODUCTION

Physiotherapy is a system of modern medical science, where it helps to restore the movement and functions in various disorders ranging from pediatrics to geriatrics. It has become one of the most recognized professions. This profession has rapidly grown among all the medical fraternities and has achieved many advances in recent years. It multiplies as the best profession in various developing countries [1]. This profession encourages development, facilitates recovery, and enables people to be fit and healthy; it plays a significant role in rehabilitating pain and function. It also works closely with other professionals [2].

Physiotherapists work across the various health care systems, including hospitals, colleges, schools, rehabilitation centers,

rehabilitation homes, old homes, pediatric centers, private clinics, and long-term facility centers. The role of physiotherapists is to prevent, promote, rehabilitate, and educate the people and community [3].

Physiotherapy or physical therapy as a profession is a science-based one, which takes patient-centered care, focuses on individual wellbeing, and every patient is considered as a new one. It gives at most respect to the problem as well as the quality of life of an individual. Physiotherapy is one of the rapidly growing professions in India and is well acclaimed by various medical professionals. However, the knowledge and utilization of the profession to the public or even to the other health care professionals are relatively low, and the percentage of usage of the physiotherapy profession is

unknown [4]. Few studies have identified that many people require or need regular physiotherapy services; because of the lack of knowledge, they are unaware of the services available and lack of availability to them [5]. A considerable number of populations were satisfied with physiotherapy services, and it was found that about 83.4% of physicians prescribe physiotherapy as their routine treatment for people with various illnesses [6].

Physiotherapy is an integral part of the health care system, without a referral from the physicians the people are not volunteering to visit. One of the reasons was identified as poor knowledge about the profession and a smaller number of public educational institutions. Because of it, there is a marked shortage of qualified physiotherapists, especially in developing countries like India [7]. In many countries, the ratio between the physiotherapist and the patient needs mismatching; in developing countries, there is a considerable gap identified. Governments need to start programs of physiotherapy in public and private universities to avoid a shortage. [8].

Although there was a high demand for the physiotherapist as a professional, the availability of seats and the number of applications by the students are relatively low. The seat availability in India is around 500, whereas the number of inquiries to the seats is 300. One of the reasons is that the students don't know the profession and their scope of practice. Many aspiring school students are not interested or have insufficient knowledge about physiotherapy as a career [9]. So, it is responsible for every physiotherapist to create awareness for the high school and higher secondary school students and understand the career in physiotherapy. One major factor that could influence this gap is understanding this profession's perception by current and future

physiotherapists, including medical students [10].

Students in high school or higher secondary education are very attentive in selecting their career path based on their knowledge, their parent's advice, teacher way and impressed by the professional careers [11]. Many students hesitate to take physiotherapy as a career, and many are not aware of the profession due to a lack of information about the job [12]. Few studies concluded much general public was not aware of physiotherapy as a profession [13,14]. So, the purpose of this article was to identify the perception and knowledge of physiotherapy as a profession among high school students.

METHODOLOGY

The study was approved by the Institutional Ethical Committee, KG Hospital, Coimbatore. The study descriptively involves 250 school students. All the participants were doing their 10th grade and 12th grade in various schools around the city. Once the ethical approval was obtained, 5 schools were approached by the team and every school principal/headmaster were approached individually and got permission to conduct the study in their schools. A ten minutes self-designed questionnaire was used in the study based on Baky 2014 [13]. The questionnaire has got two parts, Part I consist of subjective information's which has personal data whereas part II consists of a set of questions where the participants have to answer on a 5-point Likert scale. The study includes age 15—17-year students who can understand English, who hasn't had any physiotherapy knowledge. The study was conducted at the school premises, participants were assembled in an exam hall, and a small introduction about the study. The questionnaire was given to them and asked them to complete the question with their knowledge. The Assistant researchers

explained the questionnaire. Fifteen minutes were given for the students to fill up the questionnaire. Once the questionnaires were collected from the participants, a thank you note was given to every student. A total of 250 questionnaires were distributed and collected from the students. One hundred ninety-seven questionnaires were selected for the analysis after due consideration of the papers. Questions that are leftover, not filled questions, inappropriate filling up of the questions, and double markings were not analyzed. After scrutinizing, about 175 participants' answers were eligible for the study, and their data were calculated using descriptive statistical methods. Data were analyzed using SPSS 19.0, and were shown in the tables.

RESULT

Descriptive statistics were applied to the collected data and the details were discussed in percentage form. Table I shows the class of participants and the physiotherapy sub-specialties.

Table 1. Physiotherapy Subspecialties analysis

Content	Number	Percentage
Class Studying		
1.Class 10	70	37%
2.Class 11	56	33%
3.Class 12	49	30%
Physiotherapy Sub specialties Included		
1.Orthopedic Physiotherapy	56	32%
2.Neurology Physiotherapy	35	20%
3.Cardio-respiratory	20	11%
4.Sports Physiotherapy	36	21%
5.Pediatric Physiotherapy	16	9%
6.Geriatric Physiotherapy	12	7%

The students were also asked about their knowledge on the available super specialties in physiotherapy, the knowledge about the role of physiotherapist in the hospitals, the

knowledge of treatment techniques and the source of information about physiotherapy, it was shown in Table 2.

Table 2. Knowledge Questionnaire analysis

Content	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Knowledge on Physiotherapist Role					
1.Relief pain	70%	20%	10%	0%	0%
2.Improve mobility	63%	22%	15%	0%	0%
3.Maintain and improve muscles strength	57%	16%	24%	3%	0%
4.Improve balance	40%	24%	25%	10%	1%
5.Rehabilitation of postoperative patients	35%	30%	30%	4%	1%
6.Maintain and improve physical function	30%	23%	30%	10%	7%
7.Improve endurance	30%	23%	28%	12%	7%
8.Improve movement dysfunction	40%	21%	22%	8%	9%
Knowledge on treatment Modalities in Physiotherapy					
1.Electrotherapy	55%	22%	19%	4%	0%
2.Exercise therapy	68%	16%	16%	0%	0%
3.Massage	74%	13%	13%	0%	0%
4.Traction	55%	23%	22%	0%	0%
5.IRR	59%	18%	14%	9%	0%
6.Heat	54%	25%	21%	0%	0%
7.Cryotherapy	55%	25%	19%	1%	0%
8.Knowledge on Physiotherapis	67%	23%	10%	0%	0%

† role in Medical team					
Source of information about Physiotherapy					
1.Text book	15%	10%	24%	22%	29%
2.News Paper	19%	20%	28%	13%	20%
3.Internet	25%	20%	20%	19%	16%
4.Relative	29%	26%	25%	15%	5%
5.Hospital visit	38%	23%	22%	13%	4%
6.Banners & Pamphlets	38%	29%	27%	4%	2%

This study was conducted to find out knowledge and perception about physiotherapy as a profession in school students. The growth of the profession depends on the knowledge and perception of the public, stakeholders, students, and parents who believe the profession does benefit the patients [15].

The literature identified that some general physicians failed to recognize the scope of physiotherapy, and they failed to recommend physiotherapy for acute musculoskeletal and neurological disorders [16]. Insufficient knowledge about the profession is one of the causes of the lack of referrals [17]. This is because of a smaller number of physiotherapists available to deliver the services, and a minor number of therapists promote their services to the other health care professionals [18]. The physiotherapist's responsibility is to create awareness about their profession and the benefits to the public and other health workers. Various studies showed that school students assumed that physiotherapy was practiced by doctors or masseurs [18].

Nearly half a percentage of school students were not aware of the physiotherapy profession and its subtle role in inpatient care. Studies also identified the factors that why there was a lack of knowledge in school

students on physiotherapy profession is because of, i) Medical education (MBBS or BDS or BSMS or BNYS) has been considered as a primary profession on patient care by the parents and teachers, whereas they don't bother about the various other allied health courses. ii) There was a lack of knowledge about physiotherapy by the parents, teachers, and career consultants. c) Public has limited access to the physiotherapy services are also found to be the reasons for not opting d) Less public universities or colleges which provide physiotherapy program e) Lack of job opportunities f) Lack of information regarding the scope of physiotherapy, both as a profession and as a treatment modality in India [18,19].

A similar study was conducted in Japan by Ogiwara in 2005, which concluded that high school students had lacked appropriate information about the physiotherapy profession and are unaware of the vast career opportunities. Olajide 2011, conducted in Ghana, shows the students have a low level of awareness and knowledge of physiotherapy [20]. Riju did studies in 2015 also showed a moderate level of expertise on physiotherapy services and profession [21].

This study identified that high school students have poor knowledge of physiotherapy as a profession and as a career option. This brings a need for the physiotherapist to create awareness about the profession to the public as well as the students. The study was conducted in selected schools with small populations involved, the questionnaires were only in English and there was no government school was selected were few limitations in the study.

ACKNOWLEDGEMENT

The authors pay sincere thanks to Padmashree Dr. G. Bakhavathsalam, Chairman, KG Hospital, Mrs. Vasanthi Ragu,

Vice Chairman, Vaijeyanthi M Das, CEO, Mr R. Prabhu Kumar CEO and Prof Mohan Gandhi CEO, All Faculties KG College of Physiotherapy, KG Hospital and Vice Chancellor, the TN Dr MGR Medical University, Chennai. India.

AUTHOR CONTRIBUTION STATEMENT:

Dr. B. Arun has conceptualized the work. Ms Pavithra, Ms Illakiya, Ms Preetha, Ms Amsa and Ms Akila gathered the data with regard to this work. Dr. B Arun, Ms Illakiya & Ms. Pavithra analyzed these data and necessary inputs were given towards the designing of the manuscript. All authors discussed the methodology and results and contributed to the final manuscript.

REFERENCES

- [1] Murphy BP, Greathouse D, Matsui I. Primary care physical therapy practice models. *J Orthop Sports Phys Ther*, 35: 699–707.2005
- [2] Thomson A, Skinner A and Piercy J. Tidy's physiotherapy (15th edition). Oxford Butterworth Heinemann,. 2013.
- [3] Higgs J, Refshauge K, Ellis E. Portrait of physiotherapy profession. *Journal of Inter professional care*. 15 (1): 79- 89. 2001
- [4] Ikujiima H, Noma K, Ito M. Methods of portraying the physiotherapy profession: a survey conducted on the awareness of physiotherapy during a fair on lifelong learning. *J Jpn Phys Ther Assoc*, 25(55). 1999
- [5] Summers M. General practitioners and information on local services. *Health Issues*. 35: 32-34. 1993
- [6] Silva DM, Clark SD, Raymond G. Californian physicians' professional image of physical therapists. *Physical Therapy*. 29: 1152-1156. 1981
- [7] Pavithra R. Perception of Physiotherapy profession: a short review, *Indian journal of physical therapy*. 3(2). 2015
- [8] Rathi AS, Chandra R. Awareness of physiotherapy as career option among higher secondary students of Nagpur city: a cross sectional study. *Int J Health Sci Res*.10(10):13-20. 2020
- [9] Harris MF, Management of Chronic musculoskeletal conditions in general practice. Self care and use of community resources. A report of qualitative process. General practice evaluation and program work in progress report. Australia. Government printing service. Canberra. 3—5. 1992
- [10] Watanabe M. Reexamination of the relationship between guidance, counseling and available information, role of guidance counselor. 453. 2—5. 1995
- [11] Hachimatsu K, Hirata N, Umezaki M. A. Survey of saga high school students' awareness of physiotherapy. *J JpnPhysTher Assoc*. 25. 98. 1998
- [12] Hirose Y, Ito Y, Fujii Y. A survey of high school student awareness of Physiotherapy. *J JpnPhysTher Assoc*. 23 : 153. 1996
- [13] Baky AM, Physical therapy profession perception by physicians and medical students in Sudayr region. *IJPT* 2(2). 54—60. 2014
- [14] Dalley J, Sim J. Nurses perception of physiotherapist as rehabilitation team members. *Clinical Rehab*. 15(4): 380—389. 2001
- [15] Puckree T, Harinarain R, Ramdath P, Singh R, Ras J. Knowledge, perceptions and attitudes of final year Medical, Occupational Therapy and Sport Science students regarding Physiotherapy, in KwaZulu Natal, SA *Journal of Physiotherapy*, 67 (3). 2011

- [16] Holdsworth LK, Webster VS and McFadyen AK. Physiotherapists' and general practitioners' views of self-referral and physiotherapy scope of practice: result from a national trial. *Physiotherapy*.94:236-243.2001
- [17] Kallus K, Noble D, Bezner J, Keely G. An assessment of high-school students' knowledge of physical therapy and the factors that influence their knowledge. *Journal of Physical Therapy Education*. 13:4-11. 1999
- [18] Dissanayaka TD, Banneheka S. Awareness in physiotherapy among high school students, *International Journal of Scientific and Research Publications*, (4): 7. 2014
- [19] Ogiwara S, Nozoe M. Knowledge of Physiotherapy: A study of Ishikawa High School students. *Journal of Physical Therapy Science* 17: 9-16. 2005
- [20] Olajide A. Olawale, Magdaline T. Adjabeng. Awareness and knowledge of physiotherapy among the general public in an African market in Accra Metropolis, Ghana. *Indian Journal of Physical Therapy*. 2011
- [21] Riju RD. Awareness about physiotherapy among high school students of Anand district. *International Journal for innovative Research in multidisciplinary field*. 1: (5). 2015