

*Review Article*

## Review of Physiotherapy Awareness across the Globe

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### ABSTRACT

**Background:** Vital role of Physiotherapy in health promotion, prevention and treatment of a wide spectrum of disorders is established. Physiotherapy services have evolved from general to specialty clinical services across the world. Yet, its utilization is not studied adequately. Therefore, this study is designed to explore literature on awareness about Physiotherapy across the globe.

**Methods:** Computerized literature search of EBSCOHOST, Cochrane reviews, PEDro database, Medline, EMBASE database and Google scholar was conducted. Cross references cited in the identified articles were screened.

**Selection criteria:** Studies conducted from 1979 till date was included. Key words used were awareness, perception, knowledge, attitude and Physiotherapy. Studies conducted in countries across the globe within four sectors of Human Development Index (HDI) i.e. very high, high, medium and low were considered. Language was restricted to English. Survey studies conducted among large population using questionnaire, telephonic and personal interview methods were reviewed. Original research articles, surveys, qualitative studies and reports published in peer reviewed journals and conference proceedings were reviewed. Articles were screened for relevant cross references.

**Results:** Thirty eight studies were screened. Nine studies were selected for review based on inclusion criteria among which 6 were from very high HDI countries, 2 from medium HDI and 1 from low HDI countries. Five studies were conducted among general population, 3 among students, and 1 among patients.

**Conclusion:** Literature pertaining to awareness of Physiotherapy as a crucial partner in health care system is scarce. Published literature indicated low awareness among various populations even in countries with very high HDI. Hence, the need for awareness of Physiotherapy profession is urgently warranted.

**Key words:** Awareness, Physiotherapy, access, self-referral, Human Development Index.

### INTRODUCTION

Physiotherapists are health care professionals who maintain, restore and improve movement, activity and health for individuals in all age groups. In some continents, they are addressed as Physical

therapists and in other continents as Physiotherapists. Physiotherapists are involved in health promotion, prevention and treatment of diseases to ensure optimal functioning and better quality of life of individuals and population. <sup>(1-3)</sup> They

develop and implement programs for screening and prevention of common physical ailments and disorders.

Over the years, Physiotherapists have evolved as autonomous health care practitioners. In developed countries direct access to Physiotherapy is practiced. However, in health care system of developing countries like India, Physiotherapy profession is still in the budding stage compared to other health care streams.

Physiotherapy, after World War, has emerged as an integral part of health care team for overall rehabilitation of patient. Despite having wide role, the extent of awareness about physiotherapy among public as a crucial health care partner is still doubtful. One probable reason may be lack of awareness among population and other health care team members on the scope of this profession. <sup>(4)</sup> Few research studies are undertaken in countries with very high to low Human Development Index (HDI) to explore awareness about physiotherapy. HDI is an indicator of health status and standard of living of a country.

Even in very high and high HDI countries, there is lack of complete understanding of Physiotherapy profession. There exists negative perception about the profession that it deals with mostly exercise and massage only. <sup>(5)</sup> There is an urgent need for marketing the profession to improve awareness among public about the scope of this vital profession as a key component in health care system. The scope of Physiotherapy in tertiary health care level for management of disorders and rehabilitation of differently abled population is recognized. However, the role of Physiotherapy in health promotion and prevention of diseases is still growing.

The review objective of study was to explore awareness about Physiotherapy across the world in countries with very high,

high, medium and low Human Development Index.

## **METHODS**

The data sources were EBSCOHOST, Cochrane reviews, PEDro database, Medline, EMBASE database and Google scholar. References cited in articles were also screened for additional information. Key words used were awareness, perception, knowledge, attitude and Physiotherapy.

Inclusion criteria for review were qualitative studies that utilized questionnaire, telephonic and personal interview for data collection. Qualitative survey studies conducted among general population and among various populations like students were included (refer Table 1). The review was restricted to literature in English language. Studies conducted from 1979 till dates were included in this review.

Research articles, abstracts and reports relevant to review objective (n= 38) were included. All data were analyzed. Abstracts and reports were excluded (n= 12) due to inadequate information and non accessibility to full text article. Twenty six full text articles from peer reviewed journals were secured for screening out of which, eleven were included in review based on inclusion criteria. Full text articles were read to identify their eligibility for review and references were screened for relevant cross references. Selection process for the review is illustrated in Figure 1.

A data extraction sheet was prepared for analysis of quantitative and qualitative data. Quantitative data included year of publication, sample size and HDI of the country where study was conducted. Qualitative data included context and outcome of study. The data were extracted by the primary author and reviewed by second author.

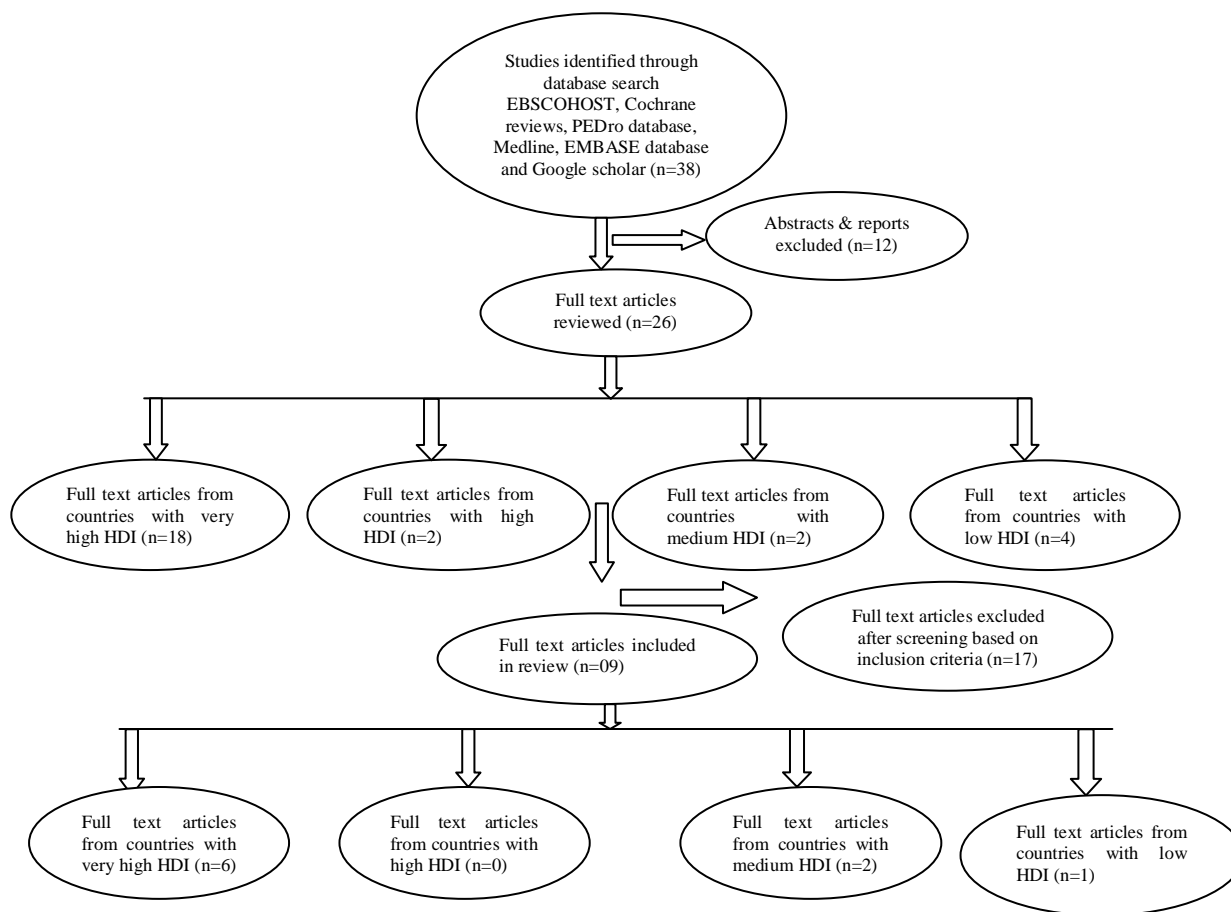


Figure 1: Selection process for review of literature

## RESULTS

Table 1: Data extraction sheet presented in order of Human Development Index (HDI) rank and chronological order

Author	Year of publication	Study setting & Country	Target population	Method of study	Outcome of study
<b>Very High HDI</b>					
A. A.Hall et al	1979	Rural city, Victoria, Australia	General population in a rural city (n=100)	Questionnaire based Survey	47% of subjects were aware
J. James et al	1979	Suburbs, Melbourne, Australia	General population in Melbourne (n=100)	Questionnaire based Survey	57 % were aware
L. Sheppard	1994	Urban population, 6 states in Australia	General public (n= 510)	Telephonic Survey	38 % were very familiar with Physiotherapy
S. Ogiwara et al	2005	Urban setting, Ishikawa, Japan	High school students (n= 623)	Questionnaire based Survey	39% were aware
V S Webster	2007	Urban setting, Scotland, UK	Patients (n= 3,010)	Questionnaire based Survey	60% were aware about Physiotherapy
K. Rognlie	2011	Urban city, Kansas, US	General population (n=115)	Questionnaire based Survey	68 % awareness
<b>High HDI</b>					
<b>Medium HDI</b>					
Y Agarwal et al	2011	Urban city, Meerut, India	Higher secondary students (n= 46)	Questionnaire based Survey	41 % were aware
B. Varghese	2012	Urban city, Karnataka, India	Students of various health care professions like Nursing, Medical, Ayurveda & Homeopathy students (n= 1008)	Questionnaire based Survey	11 % awareness
<b>Low HDI</b>					
C. I. Chidobe	2012	Rural setting, Nkanu, Southeastern Nigeria	General population - 400 people	Interview & Questionnaire based Survey	15 % were aware about Physiotherapy

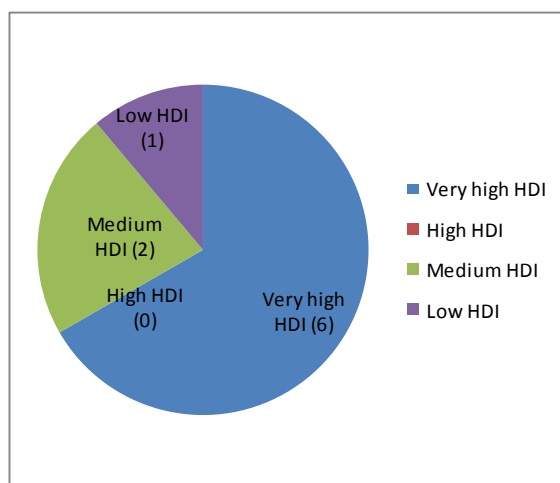


Figure 2: Number of studies secured for review

Eleven studies were deemed appropriate for this review study after screening based on inclusion criteria. A summary of qualitative and quantitative data of selected studies based on HDI rank and chronological order is presented in Table 1.

Six relevant studies were secured from countries with very high HDI, no studies from high HDI country, 2 from medium HDI country and 1 from low HDI country. It was observed that countries with very high HDI have conducted reasonable number of studies on awareness of Physiotherapy. The number of relevant studies conducted in distinct Human Development Index countries which were reviewed is illustrated in Figure 2.

Findings are presented based on target population studied i.e. General population, students and patients. Five survey studies were conducted among general public of United States (1), Australia (3) and Nigeria (1). There was no study conducted in high and medium HDI countries among general population (refer to Fig 3). Findings from study conducted in US (n=115) to collect information on public awareness on access to Physiotherapists, knowledge about scope of Physiotherapy and perceived level of Physiotherapists'

education reported that general public do not have comprehensive awareness about scope of Physiotherapy. They had better awareness on role of Physiotherapy in musculoskeletal conditions (90%), functional mobility (88.4%), neurological conditions (79.9%) and pain management (75.7%) and least knowledge about role of Physiotherapy in cardiopulmonary conditions (64 %) and in Pediatrics (53.9%).<sup>(5)</sup>

Findings of study conducted in rural Victorian town (n=100) of Australia, reported that public is not aware about role of Physiotherapist. The public considered Physiotherapist as person who teaches exercises to strengthen muscles (96 %), perform massage (87 %) and teach to walk (75 %). Subjects who had sought Physiotherapy treatment in the past (47 %) had better knowledge about scope of this profession.<sup>(6)</sup> The survey among Melbourne public (n=100) in Australia, found considerable degree of ignorance (43 %) and great need for educating public about wide spectrum of Physiotherapy health care services.<sup>(7)</sup> Another study conducted in Australia (n=510), reported less awareness among public about role of Physiotherapy in treatment of musculoskeletal conditions (47 %), specialist services in women's health (2 %) and Pediatrics (0 %). The main source of information about physiotherapy was from doctors (57.5 %).<sup>(8)</sup> Findings of study conducted in a rural community of southeastern Nigeria (n=400) reported that 85.2% of rural public had never heard of Physiotherapy.<sup>(9)</sup>

Study from Scotland was the only study conducted among patients to explore awareness about physiotherapy. The postal survey conducted among patients in Scotland, UK (n=3010), found limited perceived knowledge about Physiotherapy (60 %) among self-referred and General Practitioner referred patients.<sup>(10)</sup>

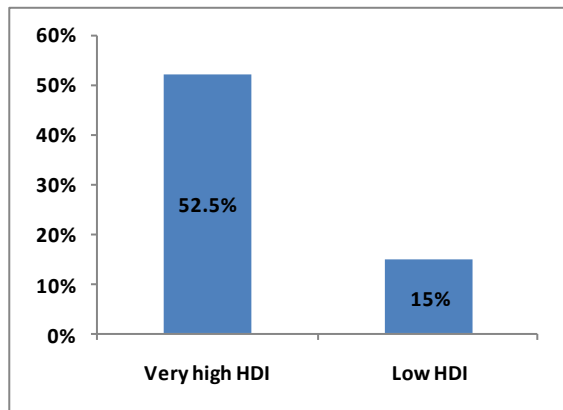


Figure 3: Level of awareness on Physiotherapy among public in very high and low HDI countries

Three studies were conducted among students of various streams in very high HDI (1) and medium HDI (2) countries. No studies were found from high and low HDI countries. Findings from survey conducted among high school students in Japan (n=623) reported marginally higher level of awareness among students from very high HDI country compared to medium HDI country (refer to Fig 4). Physiotherapy awareness among science stream students (44.5 %) and health care aspiring students (59 %) were found to be better than non health aspiring students (35.5 %).<sup>(11)</sup> Study conducted among higher secondary students from Meerut (n=46), India, reported that 41% of students were aware about Physiotherapy and 26% of them wanted Physiotherapy as their future career option.<sup>(12)</sup> Another study conducted in Karnataka, India, among final year students of various health care professions like Nursing, Medical, Ayurveda and Homeopathy (n=1008) on perception about Physiotherapy reported poor knowledge about Physiotherapy among students (88.8%).<sup>(13)</sup> Introduction on Physiotherapy during student training found to be helpful in improving knowledge and perception about Physiotherapy.<sup>(14)</sup>

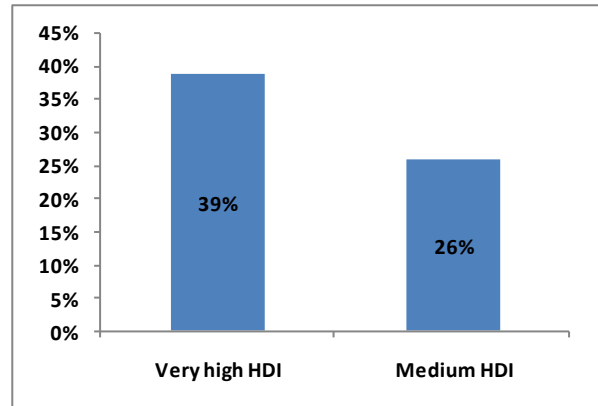


Figure 4: Level of awareness on Physiotherapy among students in very high and medium HDI countries

## DISCUSSION

Findings of the review revealed that countries with very high HDI have maximum number of studies on awareness and utilization of Physiotherapy services compared to low HDI countries. Awareness about scope of Physiotherapy among general public, students and patients in very high to low HDI countries was found low.

Findings from studies conducted in very high HDI countries on different population groups were further analyzed to investigate the rate of awareness among urban or rural population. The study subjects were compared with total population percentage published by World Development Indicators of the World Bank (2012). The wide assumption need to be interpreted with caution because population studies on awareness are not available.

In UK (n=3110), 35% of urban and semi urban population were aware about scope of Physiotherapy.<sup>(6,10)</sup> According to World Development Indicators of the World Bank (2012), total urban population percentage in UK is 80%<sup>17</sup> which indicates awareness among less than half of urban population. In Australia (n=610), 29.5 % were aware about Physiotherapy and 53% of urban population considered Physiotherapists as massagers and 40 % as exercise prescribers.<sup>(7,8)</sup> According to World

Development Indicators, 89 % of Australian population is in urban area which indicates awareness among one third of urban population.

The study conducted at Kansas City, United States, revealed, 54 % are aware about scope of Physiotherapy, with highest awareness in musculoskeletal conditions (90%) and least awareness in integumentary conditions (18%).<sup>(5)</sup> The findings of this study are likely to under estimate actual awareness about Physiotherapy among 83% urban population of United States. In Japan (n=623), 58% of high school students in urban area were aware about Physiotherapy. The findings of this single study are likely to under estimate the awareness in Japan, which has 92 % urban population. Comparison of level of awareness of Physiotherapy in very high HDI countries suggests, awareness is maximum in Japan, followed by USA, UK and Australia.

Within medium HDI category two studies from India have reported 41 % & 11 % awareness level among students compared to 68 % population in urban region.

In Nigeria, where urban and rural population distribution is equal, study conducted among general population in rural village (n=400) revealed that 85% population have never heard of Physiotherapy.<sup>(9)</sup>

Factors associated with level of awareness were explored in different population groups. It was observed that awareness was greater among students compared to general public.

In developed countries, direct access to Physiotherapists is practiced, where patient directly approaches Physiotherapists for health care services without referral from medical practitioner or any other health care professional.<sup>(12)</sup> However, in developing country like India and least developed countries like Sudan, patients are referred by

medical practitioner with a referral letter for receiving Physiotherapy services. Lack of accurate information about competence of Physiotherapists among Physicians, can lead to underutilization of skills and resources of this potential profession.<sup>(14)</sup> The knowledge about scope of Physiotherapy needs to be inculcated among medical practitioners during graduation and interdisciplinary team approach is required in health care clinical practice.<sup>(14)</sup>

The study conducted among students of various health care professions revealed less awareness about Physiotherapy profession. This indicates lack of interdisciplinary education during graduation programs. Inter disciplinary team approach is encouraged globally considering optimal benefit to patient and care givers. The team approach concept is essential to enhance awareness about role and scope of other professions.<sup>(12)</sup> Among high school students, those aspiring for health care profession were more aware (80%) due to better exposure to information on health care oriented careers.<sup>(11)</sup> Mass media and career pamphlets were found to be main sources of information about Physiotherapy among high school students in Japan.<sup>(10)</sup> Physiotherapists need to actively utilize the resources to improve awareness about the profession in community.

It is reported that higher levels of literacy are associated with better understanding and knowledge about medical conditions and health care among general public.<sup>(14)</sup> Also, for knowledge about scope of Physiotherapy profession, the educational level of subject is found to be a significant predictor.<sup>(4)</sup> The studies conducted among urban population revealed that role of Physiotherapy in musculoskeletal and neurological condition is recognized. However, role of Physiotherapy in cardio-pulmonary conditions, health promotion, wellness, and preventive aspects of

Physiotherapy profession remains unrecognized and least publicized. (7,12) Considering the vital role of Physiotherapy in health care, ignorance about complete scope of this profession points towards an urgent need for awareness programs and marketing strategies in this field. (4,7,9)

Physiotherapy has evolved from general to specialty service in recent years. Physiotherapists are involved in critical evaluation and decision making in disorders and execute evidence based clinical practice. (3) Physiotherapists are useful resources in educating public about healthy lifestyles and wellness exercises for prevention of physiological risk factors for non-communicable diseases, which is identified as a major threat to global health. Yet in a very high HDI country like Australia, general public demonstrated less confidence in diagnostic and therapeutic skills of Physiotherapists among public. (6) The plausible explanation could be negligible communication about complete scope of Physiotherapy. The general public needs to receive accurate and clear information on scope of this profession with continuous update. Factors contributing to less information on scope of Physiotherapy in rural community could be lack of awareness of Physiotherapy among community health workers and poor referral practice by health workers. (8)

## CONCLUSION

Literature pertaining to awareness of Physiotherapy as a crucial partner in health care system is scarce. Evidence indicated low awareness among general public even in countries with very high HDI. Therefore, the need for awareness of Physiotherapy profession is urgently warranted for improved functional outcome.

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