

PEDAGOGICAL PRINCIPLES IN PHYSIOTHERAPY

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Abstract

On the basis of The National Commission for Allied and Healthcare Professions Act 2021, Government of India has reformation and standardised education and practice of allied and health care professional. Based on it, this article has highlighted on pedagogical principles towards development of physiotherapy curriculums. In this article I have tried to enlighten certain core principles like quality, modernisation and many more.

Keywords: *Physiotherapy, Curriculum, NCAHPA 2021, pedagogy principle.*

INTRODUCTION

As per new gazette notification of The National Commission for Allied and Healthcare Professions Act, 2021, Act NO. 14 OF 2021, the Government of India has taken appreciable steps to synchronised and standardised the health care profession and to upgrade the standardised norms, rules and regulation. In this Act it is clearly mentioned, “to provide for regulation and maintenance of standards of education and services by allied and healthcare professionals, assessment of institutions, maintenance of a Central Register and State Register and creation of a system to improve access, research and development and adoption of latest scientific advancement and for matters connected therewith or incidental thereto”. Further, this new notification has elaborated the term “healthcare professional”. Now this term includes a scientist, therapist or other professional “who studies, advises, researches, supervises or provides preventive, curative, rehabilitative, therapeutic or promotional health services and who has obtained any qualification of degree under this Act, the duration of which shall not be less than three thousand six hundred hours spread over a period of three years to six years divided into specific semesters.”

Moreover this notification has clearly clarified that the Physiotherapy Professional referred as “a person who practices physiotherapy by undertaking comprehensive examination and appropriate investigation, provides treatment and advice to any persons preparatory to or for the purpose of or in connection with movement or functional dysfunction, malfunction, disorder, disability, healing and pain from trauma and disease, using physical modalities including exercise, mobilization, manipulations, electrical and thermal agents and other electro therapeutics for prevention, screening, diagnosis, treatment, health promotion and fitness. The physiotherapist can practice independently or as a part of a multi-disciplinary team and has a minimum qualification of a baccalaureate degree.”

It is now clear, that all allied and health sciences professional education now needs massive reformation and remodelling of syllabuses. It is one among many other major challenges, where multi-disciplinary and highly experienced professionals, eminent academic experts of respective discipline needs a brainstorming discussion and such debates should be continued for improvement. Out of all those challenges, as per my view, the pedagogies have an important role

for framing the curriculum for professional courses. Pedagogy can be described as an art of transforming the knowledge through scientific method with managerial skills¹.

In this article I have focused on certain pedagogical principles which may be needed for formation of curriculum for undergraduates and graduates programs for physiotherapy professionals. As a professional it is known to us that physiotherapy is a health sciences profession which deals with hypo mobility disorders which are treated through non-pharmacological agents. Physiotherapist has to know about exact structure of human body and its function. Further they have to gain the clinical knowledge which includes the causes, course of disease and disorders, pathology & patho-mechanics, identification of disease and disorders and probable medical and associated solution. To learn the skills of physiotherapy, everyone has to complete basic bachelor degree program of duration of 4 years as theoretical and practical and followed by six months compulsory rotational internship in physiotherapy and associated sectors. Whereas in master program physiotherapy. (During Master program,) scholars have to learn in depth in all round aspect of disease and disorders in his/her identified specialized field.

PRINCIPLES IN PEDAGOGY

The pedagogical principles guide the design, implementation and evaluation of bachelor and master degree programs up to the standard needed. The pedagogical principles harmonize the strategy architecture in learning and the development of profession. It also ensures equal study opportunities for each student². It also resolves the purpose of strengthening the skills of pedagogy in teaching physiotherapy theoretically and practically.

To implement the application of pedagogy in physiotherapy, we must consider certain issues. We have to compete with international quality of clinical application, research, and the attractiveness of the therapeutic process. We have to develop and be adapted with the modern and international skills and technology. Most importantly we have to develop the scholar to anticipate the probable needs of working life and to respond to those needs with training solution which are need based and client or patients oriented. Flexible, efficient and based on the application of new clinical technology is needed. We have to train the physiotherapist professional skills with human touch.

Need for pedagogy in Physiotherapy education.³

Physiotherapy is a health care profession, where a professional needs to interact and take care of the patient for a long period and he has to coordinate with different health professionals. Thus it is mandatory for the therapist to know about the health related issues of each and every discipline in details. Now it is the task of a teacher is to provide 'in depth' education which is based on clinical environment. For the development on this field we need research, creative foundation, bound for skilled base task and to support other co-members of hospital professionals. As per my point of view, the important pedagogical applications can be applied in following methods.

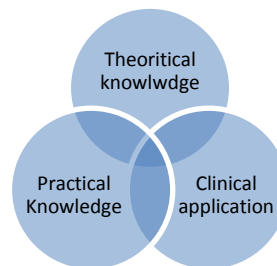
- A. The development of physiotherapy education is important to create learning environment and to search for amicable solution to solve the challenges associated with**
 - a. Theoretical concepts,
 - b. Practical and skill techniques and
 - c. Application of above two in clinical sector with as much ease as possible.

B. Proficiency and its development

There are three angles on skilled development: ³

- ✓ Novice therapist can procure the skilled knowledge and evidence based practical knowledge, through discussion with senior professionals, professors and journals discussion.
- ✓ Participation in professional operating culture, such as scientific seminar, symposium, debate and clinical discussion etc. irrespective of any health sciences field.
- ✓ Creation and / or modification of new skills in physiotherapeutic technique, physical assessments and rehabilitative exercises and life style modification with research and scientific knowledge.

Roping of the above three components together.²



It is known that each and every student has his own strength and weakness. What so ever, a physiotherapist has to under-go four years of challenging part of his life, where he has to acquire theoretical knowledge from different sources such as daily lectures, attending scientific conferences, webinar and learning practical skills at colleges, clinics and attending paid workshops operated by eminent and expert professionals. This needs to be included in curriculum. Thereafter he has to go through six month's compulsory rotatory internship, where an apprentice has to gain the art of application of theory and practical skills and knowledge in clinical field. To meet all these challenges, we need the applications of pedagogy to rope all these three components like theoretical knowledge, practical skills and clinical application with a common rope.

1. Theoretical knowledge-

A Physiotherapist has to acquire knowledge on human body structures in depth and in details form the subject known as Human anatomy and their functions through human physiology. Further a physical therapist is required to know about the human biomechanics & kinesiology which deals with analysis of human body movement and exercise physiology which deals with physiological alteration and adaptation on different type and pattern of movement at different environment. Even students should learn thoroughly about clinical conditions related with hypo / hyper kinetic disease and disorder, infectious and non-infectious disease, its clinical syndromes, pathological physiological changes, micro biological findings, biochemical alteration, radiological variation. These theoretical information should be properly exposed, explained, demonstrated and must be evaluated thoroughly before being exposed to clinical exposure.

2. Practical knowledge

includes functional skills, means acquiring experience through application and practice. Mostly it is also known as experimental knowledge. Along with principle the student has to learn skills. Clinical instructors should guide his/her physiotherapist students, with three basic learning patterns i.e observatory skills, skill of practices and logical

thinking for application. In general, a teacher has to teach theoretical as-well practical in electrotherapy applications and hand to hand training on exercise therapy, soft tissue manipulation and mobilization. Further it's a job of a clinical instructor and teacher to explain about the key finding in clinical conditions and assist the students for proper assessment of client.

3. Clinical application-

This is the key and crucial point for a scholar that he faces during internship, where he tries to correlate the theoretical knowledge with practical skills in clinical application. In general scholars follow and observe the senior and seek for suggestion from associates. In modern world the scholars should be encouraged to follow the case study from reputed journals and prepare case study report during internship. In this phase of education the clinical instructors and the chief of the physiotherapy department have vital roles to nurture the students, where students have to gain communication skills with patients, colleagues and other health care professionals. Furthermore the students has to gain evidence based clinical practices and professionalism and ultimately which shape them as professional physiotherapist.

Support for professional growth.⁴

Even after internship, a Physiotherapist, from a novice up to an expert, needs to work hard. The universities and colleges should provide refreshment courses, symposium, seminars and workshop to develop the professional growth.

From the beginner's point of view, at least the following should be starting points for learning:

- ✓ Students should have active effort for their own knowledge acquiring and skills improvement.
- ✓ Learning takes place best in genuine environments of EXPERT-NOVICE. By integration of experienced guidance on clinical application by specialist therapist and practicing therapist.
- ✓ Learning should be based on evidence based practices and experiences via clinical exposure.
- ✓ Learning should become an organized self-motivated process to compete with other professionals and for better services to the society.

PEDAGOGICAL PRINCIPLES

Core Principles

Teachers and clinical instructors both act as a guide for training and making the concepts understandable, but it is the student who has to acquire knowledge and apply the concept and theories into clinical practices by integrating his own cognitive skills.

Study activities, academic plans and curricula must be based on demand of social needs, challenges faced by professionals and experiences of senior therapist and health professionals. The knowledge that have been validated by the clinical experts and practicing therapist are most crucial.

1. Principles of Educational quality^{4,5}

- ✓ The curriculum is based on competencies and demand of clinical sector. It is developed jointly with senior-therapist, medical & health professionals of different sectors such as

AYUSH, MCI, INC, DCI, PCI, RCI and other allied health care, paramedical statutory bodies.

- ✓ Learning environments promote the learner's self-regulatory capabilities and skills related to continuous learning and development of expertise²²
- ✓ The student must have an opportunity to acquire a competence base for research, development and innovation, as well as inter-state and intra state clinical, hospital, health sector, different rehabilitation units, different care unit's exposures.
- ✓ The student of physiotherapy should be encouraged to acquire a need base and evidence based clinical research and practices which will boost them for self-development in the field of innovation, entrepreneurship and having international exposure. Rather than finding job, the therapist should build their own earning capacity.
- ✓ Different learning environments create alternative opportunities for completion of one's own studies.²²
- ✓ Throughout the entire period of study, the student should be supported with extensive and systematic counseling services and with a personal study plan (PSP) based on ongoing, developmental assessment.
- ✓ Assessment of learning and examination should be based on learning objectives. It is qualitative, based on a criteria and the student's self-assessment plays an important role in it.
- ✓ Continuous medical and skill based education, seminars, workshop, hands on training and other mode of unobstructed learning programs is to be established for the student for a longer period.
- ✓ The physiotherapy scholars need to be encouraged to attend and participate in different continuous medical education (CME) programs on any discipline on physiotherapy related subjects.
- ✓ The curriculum should encourage the scholars towards the development of working life.
- ✓ The student must participate in research and development projects along with senior therapist, scientist in educational projects and in clinical development.
- ✓ The student will have an opportunity for international education, counseling and learning to promote multiculturalism.

2. Principles of educational enthusiasm.⁷

- ✓ Curricula should allow identification and respect of excellence.
- ✓ Curriculum should encourage and motivate student for self- practice.
- ✓ An unhindered learning path for helping lifelong learning process is to be established for the student. It should encourage for self-earning skills and supports the progress of working life.
- ✓ The student will be able to participate in research and development on health and physical rehabilitation projects as well as in educational projects related to their specialised field.
- ✓ The students will have an opportunity for national and international education, jobs in different health sectors, and learning to promote multiculturalism.

3. Principles of educational modernization and internationalization.⁶

- ✓ Learning environments should encourage the learner's self-regulatory capabilities and skills such as physical assessments and diagnosis and able to judge best and possible

physiotherapy treatment and protocol.

- ✓ Students should be aware of controversial therapeutic protocol and should develop self-therapeutic protocol on need based practices.
- ✓ Graduates should be exposed to different learning environments to gain add- on create alternative opportunities after completing professional education.
- ✓ On line program will assist the students to interact with experts of different national and international health care communities, for case study and exchanging and learning new & innovative theoretical & practical ideology.

4. Evaluation and follow-up

- ✓ Realization of the pedagogical principles should be one of the responsibilities of all those in academic congress of universities. Activities which go against the pedagogical ideologies are to be dealt with mutual discussions with immediate superiors.
- ✓ The criteria should be framed for assessing on a regular basis for discussions on development.
- ✓ Students and teachers feedback mechanism.
- ✓ The other factors which are needed to be assessed are as follows –
 - The ratio of employed graduates
 - The ratio of graduates' placements in different health sectors.
 - The number of completed exams
 - The numbers of full time / part time teaching faculties.
 - The numbers of educational projects carried out with strategic co-operation partners.

5. ADVANCEMENT AND COMMUNICATION ABOUT PEDAGOGICAL PRINCIPLES

- ✓ The principles are needed to be communicated with the staff, students and educational co-partners.
- ✓ The pedagogical principles are presented at the main level of institutional web pages.
- ✓ The units and development services need to be familiarized by the staff members, senior students and postgraduates.
- ✓ These principles should be the part of the orientation of the new staff.
- ✓ These are to be included in the basic education of the first year students of postgraduates' curriculum.

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