



Overview on Pharmaceutical Education

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Abstract: Pharmaceutical education was played a major issue in pharmaceutical fields due to its acceptance among the students, pharmaceutical faculties as well as pharmacy education researchers and science historian. Now a days, some pharmacy schools, universities, institutes, departments introduced “Pharmaceutical education” subject to their pharmacy graduate syllabus according to their importance, utility, practice & also interest.

Keywords: Pharmaceutical, Education, Quality, Journals.

Introduction

In our advanced world, pharmaceutical education has evolved great importance for all professional sectors. A properly designed pharmacy education system may be utilized and improved all pharmaceutical fields¹. Pharmacy practice through well established in developed countries with the recent introduction of the Pharm.D course which may be the greater momentum to the clinical pharmacy².

Quality of Pharmaceutical Education

Pharmaceutical education quality issues in any sector have not received adequate notice. There are only a few institutions which maintain internationally recognized standard. The main hitch is that the graduates emerging from the pharmacy institutions, lack the skills needed for practice. Most of the academic institutions providing quality education in pharmacy are away from practice environment. Shortage

of trained and committed teachers is a chief problem in pharmacy institutions.

Teaching profession regrettably has lost its rightful position amongst the entity of professionals which needs to be elevated. Unless this is done, perhaps the society may not develop at the pace at which it should. It is high time that the stereotype notion of learning should be restored by the vibrant idea of insightful, value based education and skilled based, advanced technological training to develop rational based attitude in the learners.

Teaching- learning should be more of a process of self- reflective, self-critical inquiry that seeks to improve the learning outcomes associated with teaching. The process must meet learners’ needs, be innovative, make appropriate use of contemporary technologies, use learning experience and resources to support good practice, and evaluate teaching and learning outcomes to maintain quality. Total Quality



Management (TQM) in higher education, as in other professions, must be the kind of commitment projected by us for continuous improvement. Teacher's ongoing professional development and ability to evaluate pros and cons in one's own teaching critically are important elements in seeking better quality of teaching.³

Our main goal is to prepare students to practice pharmacy today and in our profession of pharmacy will continue to evolve then we to equip them with knowledge and skills to provide direct patient care to their patients with the sole purpose of identifying and resolving drug therapy problems. Our core business, the teaching and learning processes, is no exception. Array of new educational methodologies had been proposed to cater the needs of our students. Computer-based learning, case-based learning, cooperative learning, guided design teaching, project-based learning, experiential learning, and problem-based learning, have begun to take hold. Indeed, the academic literature in pharmacy is replete with many examples of literatures that explicate the nuances of implementing these innovative instructional techniques⁴⁻⁹.

Goals of Pharmaceutical Education

The main aims and objectives of all Pharmaceutical forums are:

- To promote the highest professional and ethical standards of pharmacy this is work for the growth, development and betterment in the field of pharmacy.

- To promote social contacts among pharmacists of the various countries.
- To promote the study and practice of pharmaceutical research and education.
- To edit and publish research journals of pharmacy for spreading and promoting the research scholars and academicians.
- To organize annual convention /symposium/seminar/workshop etc for upgradation of pharmacy professionals.
- To honour eminent professionals engaged for the upliftment of pharmacy profession.
- To develop and maintain a hub of pharmacy professionals for co-operation with each other.

Reputed Pharmaceutical Education Books and Journals

Books

- Harkishan Singh, History of Pharmacy in India and Related Aspects, Volume 2: Pharmaceutical Education, Vallabh Prakashan, Delhi, 1998.
- Harkishan Singh, Pharmaceutical History of India, Vallabh Prakashan, Delhi, 2009.
- Harkishan Singh, History of Pharmacy in India and Related Aspects, Volume 3: Pharmacy



Practice, Vallabh Prakashan, Delhi, 2002.

- Harkishan Singh, History of Pharmacy in India and Related Aspects, Volume 4: Builders and Awareness Creators of Modern Pharmacy 1: Mahadeva Lal Schroff and The Making of Modern Pharmacy, Vallabh Prakashan, Delhi, 2009.
- Harkishan Singh, History of Pharmacy in India and Related Aspects, Volume 5: Builders and Awareness Creators of Modern Pharmacy 2, Vallabh Prakashan, Delhi, 2009.
- Harkishan Singh, History of Pharmacy in India and Related Aspects, Volume 6: Builders and Awareness Creators of Modern Pharmacy 3: Medico- Pharmaceutical Professionals, Vallabh Prakashan, Delhi, 2009.
- Harkishan Singh, History of Pharmacy in India and Related Aspects, Volume 7: Builders and Awareness Creators of Modern Pharmacy 4: Sir Ram Nath Chopra: Work, Vision and Legacy, Vallabh Prakashan, Delhi, 2009.
- Dibyajyoti Saha, 2012. "Glimpse of Pharmaceutical Education in Bangladesh and India". Published by: LAP LAMBERT Academic Publishing, Germany.

Journals

- International Journal of Pharmacy Teaching and Practices, Malaysia.
- Journal of Pharmaceutical Education and Research, India.

- Pharmaceutical Historian, UK.
- Pharmacy Education, UK.
- American Journal of Pharmaceutical Education, America.
- Indian Journal of Pharmaceutical Education and Research, India.
- Bulletin of Pharmaceutical Education, India.

So, it was observed that, pharmaceutical education related books and journals are very rare to till date but, its utility is increases day by day in the world.

Pharmaceutical Education Quality Vs Maladies:

The following points are worth-contemplating for the intended changes:

1. Information based education to competency based education.
2. Quality Control to Quality Assurance in Education.
3. Approval to Accreditation of Educational Institutions.
4. Good Quantity Vs. Good Quality in Institutions.
5. Teachers committed to Quality and Excellence.
6. Improved Student Receptivity and Discipline.
7. Flexible and Update Curricula.
8. Adoption of Innovative Teaching Methodologies.
9. Continual flow of Education Programs.
10. Quality of Appraisal Systems.
11. Use of Quality Assessment tools.
12. Academic Exchange and Collaboration.



13. Implementation of Good Educational Practices (GEP):

- Encourage Active Learning.
- Furnish Prompt Feedback.
- Develop Mutual Co-operation.
- Encourage contact between teachers and the taught.
- Emphasize on Punctuality and Regularity.
- Generate High Expectations.
- Respect Diverse Talents and Ways of Learning.

The recommendations on GEP provide a conceptual framework for the design, implementation and assessment of contemporary education programs for pharmacists throughout. The institutions to inculcate the quality standards and to meet the demand of excellence in the professionalism must adopt the principles of GEP. Being as the recipe of excellence, GEP will not only impart quality standards but it will also take away the pharmacy education to a new horizon^{10,11}.

Conclusion

As a concerned educational pharmaceutical researcher, “D.Pharm-Pharm.D/Pharm.D (P.B.)” likes chiral issues. One a eutomer (desired isomer) and other distomer (an undesired or ballistic isomer). Time will tell us whether both the courses would be needed and/or one would become antagonistic to the development of other. Now, my view is pharmaceutical

education not just the “change from D.Pharm to Pharm.D” but change in quality pharmaceutical education to meet the challenges and the needs in the 21st century.

References

1. Saha D et. al. An Ontological Cluster on Bangladeshi and Indian Pharmaceutical Courses: Basics to Advances. *International Journal of Pharmacy Teaching and Practices*, 2012, 3 (1): 191-195.
2. Hiremath SRR. Official Desk .APTI Bulletin, 2010 , 12 (63):1.
3. Yeole P G. Official Desk. APTI Bulletin, 2010, 12 (64):1-2.
4. Sarriff A. Teaching Pharmacy: Need for a Change. *International Journal of Pharmacy Teaching and Practices*, 2012, 1 (1): 1-4.
5. Buring,S.M., Kirby,J., Conrad,W.F., A structured approach for teaching students to counsel self-care patients. *Amer J Pharm Educ*. 2007;71(1): 1-7.
6. Ives,T.J., Deloathch,K.H., Ishaq,K.S. Integration of medicinal chemistry and pharmacotherapeutics courses: A Case-based, Learner-centered approach *Amer J Pharm Educ* 1998;62: 406-411.
7. Sibbald D. Oral clinical skills examination: An Innovative reinforcing strategy for nonprescription medication courses.



Amer J Pharm Educ 1998; 62: 458-462.

8. Cisneros,R.M.,Salisbury-Glennon,J.D., Anderson-Harper,H.M. Status of problem-based learning research in pharmacy education: A call for future research. Amer J Pharm Educ 2002; 66: 19-26.
9. Delafuente,J.C., Munyer,T.O., Angaran,D.M., Doering,P.L. A problem solving active-learning course in pharmacotherapy. Amer J Pharm Educ 1994; 58: 61-64.
10. Singh B, Katare O.P. Need of Quality Education for Changing Pharma World. Indian J.Pharm.Educ.Res. 43(2), Apr-June, 2009, 203-213.
11. Kulkarni S.K.D.Pharm or Pharm .D: A Professional Chirality? Indian J.Pharm.Educ.Res.43 (2), Apr-June, 2009, 114-116.