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Challenges and Solutions in Teaching Methodology of *Sharir Rachana*

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Abstract: ***Sharir Rachana is an important subject in the study of medicine and allied health science. But what is the ideal way of teaching Sharir Rachana? The present curriculum of graduate level has discretely listed the topics of Sharir Rachana from classics of Ayurveda instead of an integrated approach towards the curriculum. This makes understanding and learning of Sharir Rachana very difficult. Moreover, the teaching methodology of Sharir Rachana is also lacking due to which our graduate aspirants are somewhere lacking in skills and confidence. Keeping these lacunas in mind, an effort has been made to find out the challenges faced by our scholars and most probable solution is suggested to overcome those problems. This study suggests to incorporate all possible solutions suggested and make teaching and learning process of Sharir Rachana an interesting one.***
Keywords: Sharir Rachana, teaching methodology, integrated approach, curriculum.

I. INTRODUCTION

Ayurveda, the backbone of Indian medicine has carved its footprints on global platform with its very scientific and unique principles. The emerging medical scenario, in the wake of these developments and potentials require a redesigning of education pattern in *Ayurveda. Sharir Rachana* is a fundamental building block of medical practice. By studying *Sharir Rachana* students get the first impression about structure of human body which is basis for understanding pathological and clinical problems. It is one of the most important subject in the study of medicine and allied health sciences. Although a shift is clearly visible from ‘‘traditional’’ teacher-centered education, with students as passive recipients of information, to ‘‘innovative’’ student-centered education, concern is rising about the level of knowledge achieved by students graduating from innovative programs, for basic sciences in general[1].
But the teaching methodology of *Sharir Rachana* is somewhere lacking. As a result, our young under graduate aspirants are lacking somewhere in their skills and confidence as well.
In order to remove these lacuna we need to focus on challenges we are facing in teaching as well as learning and should work upon the solutions to face these challenges.

1) *Challenge 1:* In current scenario, teaching *Sharir Rachana* syllabus in a bounded interval of time is prime challenge as *Sharir Rachana* is a voluminous subject comprising of not only gross anatomy but of *sthool, sukshma* and *karan sharir*. The very first chapter of *Sharir Sthan* of *Charak Samhita* seems to be a part of philosophy along with that of Anatomy. *Sharir Rachana* has its own terminology and the subject is in *Sanskrit* language. Most of the science students eligible for doing B.A.M.S do not opt for *Sanskrit* language in intermediate, so it is a challenge for science student to understand *shlokas* and interpret them.

a) *Solution:* The students should be made aware of this fact before teaching *Sharir Rachana*. They should be mentally prepared that they are not the students of Anatomy only but much larger than that. This can be achieved by an introductory session of students and teachers. The *Sharir Rachana* dictionary with deeper and simplified meaning of terms mentioned should also be taught along with the main text. The Hindi commentaries of *Sharir sthan* should be incorporated in B.A.M.S syllabus so that instead of mugging up, the students can be enlightened by exact meaning of term or *sutra.* It will promote the interest of student in subject.

2) *Challenge 2:* Till date memory-oriented teaching and learning is going on which is called Rote Learning now-a-days. Rote learning is memorizing information so that it can be recalled by the learner exactly the way it was read or heard. The major technique used for rote learning is learning by repetition in which information is acquired without regard to understanding. The traditional method of teaching was by recitation of verses only. The writing style was not developed.

a) *Solution:* Learning is the process of acquiring new understanding, knowledge, behaviors, skills, values, attitudes, and preferences[2]. Meaningful learning is the concept that learned knowledge (e.g., a fact) is fully understood to the extent that it relates to knowledge elsewhere. Meaningful learning implies a comprehensive knowledge of the context of the facts learned[3]. The teacher of *Sharir Rachana* is expected not only to be well versed in the theoretical concepts of books, he is expected to be practically oriented. As mentioned in *Sushruta Samhita* for better understanding of *Ayurveda-*

- Divide the verse in *pad* (small part of verse)
- Divide the verse in *pada* (forth part of the verse)

This means divide the verse in small parts and then teach them. This method can be well used in *Sharir Rachana* too. This can fix an imprint of verse in mind along with acknowledgement of verse. It can lead to better understanding of *sutra* or verse. This way memory-oriented teaching can be converted to development of understanding and skill oriented which is the need of an hour.

3) *Challenge 3:* During under graduation, teachers and students only focus on bones, joints and gross structures. Education pattern is based on modern Anatomy though *Sharir Rachana* has its own *siddhanta.*

a) *Solution:* From the very beginning, the student should be taught the basic *siddhanta.* The exact knowledge of *Sharir Rachana* can be obtained by methods to understand *Ayurveda* mentioned in *Charak Samhita* i.e. in 3 steps-

- *Vakyashah:* Understanding the sentence as it is stated.
- *Vakya arthashah*: Understanding the concept by means of following protocol-
  - *Pratigya:* Hypothesis
  - *Hetu:* Logical reasoning
  - *Udaharan:* Example
  - *Upanayana:* Correlation or comparison
  - *Nigman:* Conclusion
- *Vakya avyavshah*: Understand the difficult concept and express it in your own words or language.

Along with these, *Tantrayuktis* should be included in first few lectures so that student can understand it and use it for correct interpretation. *Paribhasha Sharir* should be explained in a manner that meaning of terms *Kandara, Sira, Jaal, Kurcha* etc. can be justified.

4) *Challenge 4:* Due to increase in number of seats in *Ayurveda* colleges the number of students in one batch are increasing. The traditional *Gurukula* system of education is sacrificed now-a-days.

a) *Solution:* The total number of available teachers in department of *Sharir Rachana* should be provided with a group of students (10 to 15 students in a group). The teacher concerned should be responsible for paying personal attention to each student of that group and should help them in understanding the concept.

5) *Challenge 5:* Trying to proove everything in *Sharir Rachana* on basis of modern anatomy leads to more and more confusion along with lack of confidence in our own subject.

a) *Solution:* Teachers of *Sharir Rachana* should make his or her students aware of fact that *Sharir Rachana* has its own concepts and theories. It is not possible to explain these concepts according to modern Anatomy. Moreover, many *Ayurveda* concepts are still mystery for modern Anatomy and they are still working to figure them out, so student should try to understand his own concepts and explore them.

6) *Challenge 6: Sharir Rachana* is in 1st year of B.A.M.S syllabus. In most of colleges 1st year students are not given the opportunity to do O.P.D duties so students remain passive learner of *Sharir Rachana.*

a) *Solution:* To promote active learning of *Sharir Rachana,* case-based lectures((CBL) should be given to students. This provide them with an opportunity to see theory in practice. The symptoms and signs observed in a case can help in better understanding of clinically oriented *Sharir Rachana.* while interacting with the case, student can develop his or her communication skills too. In recent studies on curriculum integration and different strategies to implement it, it has been reported that, although curriculum integration at the beginning of medical training made perfect sense, this skill is not intuitive to many students, mainly first year students, who fail to see how various concepts from different sciences could fit together[4]. The proposal was to integrate basic science in the first year and clinical science during the second so that the knowledge acquired in the first year could be applied in problem solving and critical thinking in the following years of training[5].

7) *Challenge 7:* Developing of a concept as a whole is lacking.

a) *Solution:* To develop a concept completely its *Rachana, Kriya,* and Clinical aspect should be discussed at the same time. For this symposiums on same topic for example : if Heart is considered it should be presented by *Sharir Rachana* Department , *Sharir Kriya* Department, *Rog Nidan* Department , *Bal Rog* Department , *Stree* and *Prasuti* Department all at same time so that its anatomical , physiological, clinical, paediatric , embryological aspect can be understood at same time. The best way of teaching *Sharir Rachana* is by combining multiple pedagogical resources to complement one another. The students learn more effectively when system-based approaches are integrated[6].

8) *Challenge 8:* Method of presentation is lacking while teaching *Sharir Rachana.* Due to lacking of presentation skills of teachers superadded by passive nature of students during didactic learning makes this subject boring.

a) *Solution:* Now a days, teaching process has shifted from teacher centric to student centric. To incorporate this, teacher has to update himself with challenges and solutions and apply them in his teaching style. Modular pattern should be incorporated in teaching *Sharir Rachana*. The module should be prepared as such there is integration of different teaching and learning activities to ensure harmonious functioning of *Sharir Rachana* educational process. The various topics like *Marma*, *Pramana* etc. should be presented along with demonstration on living body. Presenting a topic on basis of today's science increases learner's curiosity in subject. Example oriented lecture should be incorporated as its effect on students is long lasting.

9) *Challenge 9:* Lacking of practical aspect while teaching *Sharir Rachana*.

a) *Solution:* Various evidence based and student-centered strategies such as team based learning (TBL), case base learning (CBL), flipped classroom have shown to improve student engagement and interaction in Sharir Rachana teaching and learning[7]. The models related to *Ayurveda* aspect of *Sharir Rachana* should be developed. The basic concepts for example: *Twak sharir* should be explained practically with models based on *Twak* description in *Ayurveda* rather structure of skin in modern Anatomy. Workshops should be organized to update the practical and applied skills by new technologies like new cadaver preservation techniques, new 3D technology in making working models.

10) *Challenge 10:* Dissection is based totally on modern Anatomy Dissectors guidelines. This may lead to understanding of modern Anatomy but understanding of Sharir Rachana is compromised.

a) *Solution: Sharir Rachana* Dissector should be developed which include guidelines for all possible events that could be observed while dissecting a particular part of body. For example: it should mention marma points, kandara, sira, jaal etc. that could be seen, along with structures of modern Anatomy. Dissection would appear to be ideally suited to self-directed learning: students exploring a subject for themselves at their own pace, in a practical way and according to their own personal interests[8].

11) *Challenge 11:* The use of life models in the study of the living body has been neglected in teaching and assessment in *Sharir Rachana*.

a) *Solution:* Living anatomy enables the learner to see structures move and function, particularly in the musculoskeletal system, and to become familiar with important surface landmarks[9]. It also provides students with the opportunity to observe, examine, and interact with a living person.

12) *Challenge 12:* Lack of classroom infrastructure according to today's requirements of teaching and learning in most of B.A.M.S colleges is also a formidable challenge in the process.

a) *Solution:* The development of rooms for teaching anatomy, since the ancient "Anatomy Houses", amphitheatres, classrooms with blackboards to dissection theatres, classrooms with diverse technological advances and to the virtual classroom is enhancing the process of teaching and learning[10]. Likewise, if we are advancing in teaching and learning technologies of *Sharir Rachana*, the infrastructure upliftment to virtual classrooms will enhance the process.

II. CONCLUSION

In this present era of time-based education system, the conventional methods of didactic teaching of *Sharir Rachana* should be improvised by non-conventional methods like e-learning techniques with audio and visual aids. Along with this the practical or applied aspect of teaching should be encouraged which includes demo classes, practical classes, case studies, seminars and workshops.

Sharir Rachana if taught in such a way can act as pivotal to complete a medical examination, to make a diagnosis, to communicate with colleagues and for every surgeon who performs invasive procedures on patient.

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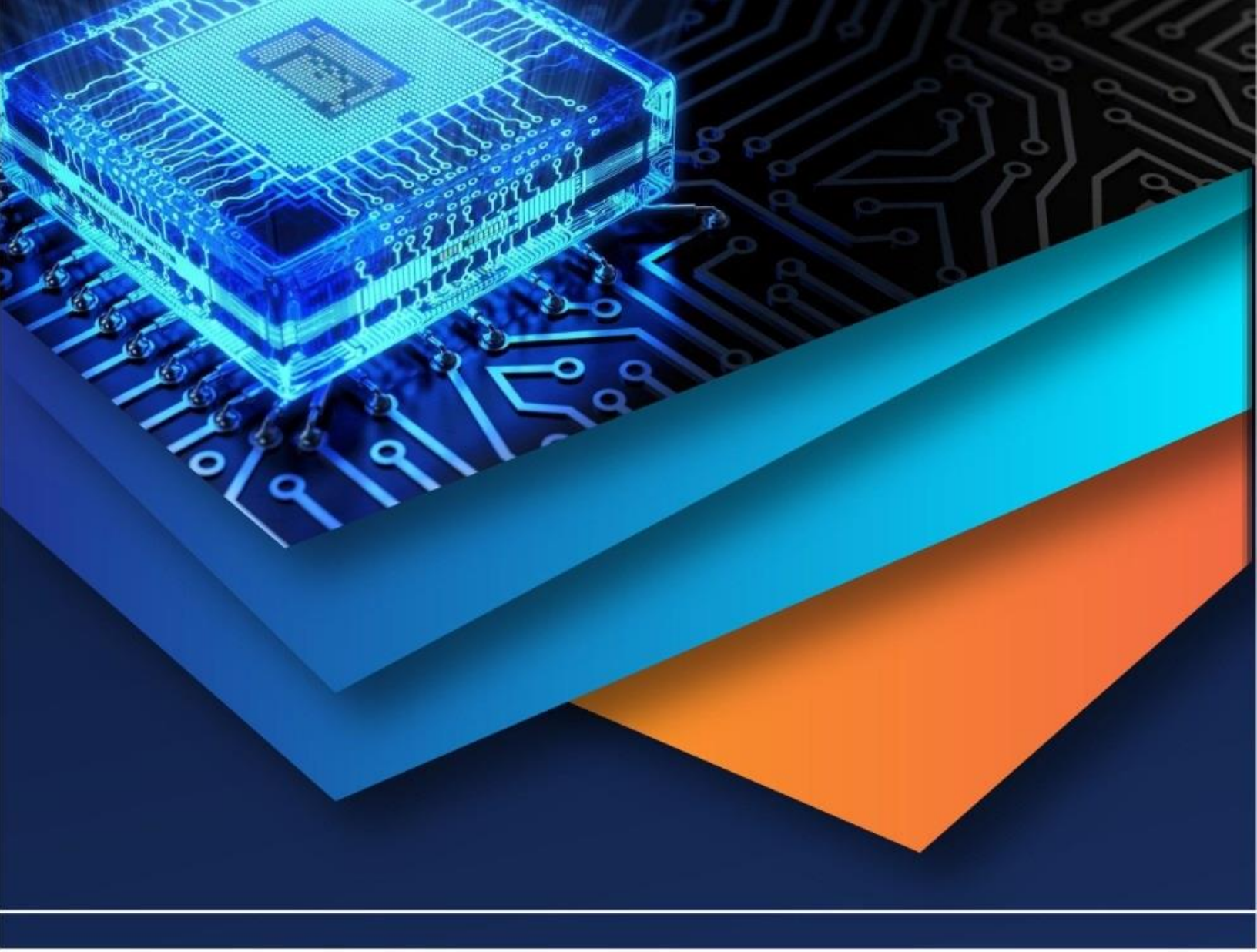

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