ABSTRACT

CBME (Competency Based Medical Education) is an approach to produce physicians those are knowledged, skilled and competent to serve the community in spite of producing only graduates. CBME is an objective oriented training model that focuses on the knowledge, skills and attitude empowerment of the learners. The objectives of CBME can be achieved in the Ayurveda field of higher education if it is implicated on the smaller divisions and sub-divisions of the Ayurved Education. Present discussion is focused on applying objectives of CBME in a single subject (programme specific) Kriya –Sharir of 1st B.A.M.S. programme. Competency based education can be applied to Ayurveda education specifically for the Ayurveda concepts in such a way that all cognitive, psychomotor and affective domains can be achieved by learners in an effective way through different methodologies.

Keywords CBME, Sharir-kriya, cognitive domain, psychomotor domain, affective domain

INTRODUCTION: Ayurveda is an ancient science of life. Ayurveda deals with the maintenance of well being of healthy people (swasthy rakshana) and also deals with the treatments, procedures and remedies (aaturanam vikarprashamanam) for the diseased ones. It exits since the period of ancient literature of Indian culture i.e. Vedas from year 4000B.C. The knowledge of this ancient Health Science was confined into the Samhitas and was propagated to next generations through “Moukhiki “ or “Gurukul “ parampara direct from the teachers “guru” towards the “Shishya”. Although the Texts in Samhitas lead to the inference that a strong system of conferences where postulated hypothesises were challenged and after the critical evaluation the principals or statements were accepted, the system was ruined because of the sequels of wars by foreign invaders who tried to destroy the ancient Indian rituals with attempts to impose their traditions in India. By the time the Samhitas were preserved at few places and the main streams to practice the Teaching were collapsed. The institutions for Ayurved Medical Education are governed by AYUSH Ministry .Rules and Regulations are laid by AYUSH and are audited every year for the affiliation. Yet it is observed that teaching is generally perceived as memory oriented instead of being analysis, skill and understanding oriented. The Education Policy has been declared in 2019 which states that the alternative health systems will be mainstreamed. Hence it is mandatory for the Ayurved institutes to meet the worldwide enchanted concept of “Competency Based Medical Education (CBME)”. CBME is an approach to produce physicians those are, knowledge, skilled and competent to serve the community in spite of producing only graduates. To achieve goals of CBME reality of the Ayurved education system must be taken into consideration. Competency is defined as “ability to do something efficiently and successfully.”
CBME is an objective oriented training model that focuses on the knowledge, skills and attitude empowerment of the learner’s. The course of BAMS is designed in a four and half years programme. First, second, third year programme is of one year and the fourth year programme of one and half year. Along with the competencies in these programmes the students have to undergo 1 year internship. The objectives of CBME can be achieved in the Ayurved field of higher education if it is implicated on the smaller divisions and Sub-divisions of the Ayurved Education. Hence present discussion is focused on a single subject (programme specific) Kriya –Sharir of 1st B.A.M.S. programme. The Syllabus of subject Kriya-Sharir is a combination of Syllabus of Physiology and Basic Physiological aspects of Ayurved. Here the discussion is specifically focussed about the Ayurved portion of subject Kriya-Sharir as much literature regarding the competency based education in Physiology is available.

AIM:
To discuss
A) Domain wise objectives of CBME in the field of Sharir –Kriya subject with Ayurved perspective in 1st year B.A.M.S.
b) Various methodologies to achieve goals of CBME in Sharir- Kriya
c) Assessment tools for the competencies in various components.

COGNITIVE DOMAIN
1. At the end of 1st B.A.M.S. Programme the learners must have a thorough knowledge about the basic principles of Ayurved such as Tridosha, Panchmahabhoot,Trigun, Saptdhatu,Trimala.,etc.
2. At the end of 1st B.A.M.S. programme the learners must have understood the concepts of Prakriti, Agni , Koshtha, Dhatu, Srotas, Updhatu, Mala, Oaj Sarta,Pathya etc.
3. At the end of 1st B.A.M.S. Programme the learners must have achieved a thorough knowledge of Aharpachan , Dhatunirmi,”Mutranirman ,Ras rakt samhavan.Vak Pravritti, etc.

PSYCHOMOTOR DOMAIN-
1. At the end of 1st B.A.M.S. programme the learners must have achieved competency to derive Prakriti parikshan €”Dhatu Sarta parikshan Agniparikshan ,Koshtha parikshan Nadiparikshan , Dosha vruddhi-kshay lakshane , of healthy individuals.
2. At the end of 1st B.A.M.S. Programme the learners must have achieved competency to do Manas parikshan /Satvasar parikshan of healthy individuals w.s.r.to Trigun.

AFFECTIVE DOMAIN-
1. At the end of 1st B.A.M.S. Programme the learners must have achieved competency to communicate with colleagues, family, patients and community.
2. At the end of 1st B.A.M.S. Programme the learners must have achieved competency to have been understood about preventive, palliative and curative measures in the holistic approach of Ayurved.
3. At the end of 1st B.A.M.S. Programme the learners must have achieved competency to have faith in continuous process of extracting knowledge through Research activities.

METHODS :
Methods must be opted for the achievements of the domain wise competencies in Kriya-Sharir Subject at 1st B.A.M.S.
The learners admitted for 1st B.A.M.S. are adults and hence principles of Andragogy can be applied while designing
methodology for the teaching learning process. According to Knowels, **Adult learners are Self-directed.** Hence if they are motivated in such a way that they feel a need to learn, they are able to learn more efficiently.

**COGNITIVE DOMAIN:**

**Guest Lectures**-To create interest in the basic concepts of Ayurved, Guest Lectures of successful, eminent and motivational Vaidyas can be arranged with topics aimed at use of the basic concepts of Ayurved like Panchbhoutik siddhant, Lok-Purush samya Siddhant, Prakriti, Etc. in practice.

2nd Principle of Knowels states that adults can be a resource for their own learning and the learning of others. The basic principles of Ayurved, can be applied to the healthy individuals and hence can be applied to the learners by instructors or the facilitators in such a way that the students will rely on themselves as resources of learning.

**PSYCHOMOTOR DOMAIN:**

3rd principle of knowles states that learners are Developmental. It means that the model of teaching should be in such a way that different domains of education will be achieved by the students as they are focused on their own development.

When the interest and faith of students is developed they should be involved in the process of planning their learning process i.e. in the formation of Advanced Teaching Plan (ATP) so that they are aware of the topics to be discussed.

Once learners are motivated they can be asked for their Individual Presentations over the topics or Group Discussions or Debate Competitions Essay competitions in a planned manner. 4th principle of Knowels states that adult learners need the immediate application of theory to practice. Hence more focus on emphasizing practical application of the knowledge relevant to the real world causes their increased participation and achievements of the Psychomotor domains.

Case studies regarding Prakriti parikshan, Agni-Koshta Parikshan, Sarata, Dosh-Vruddhi Kshay Lakshan Parikshan Nadi Parikshan of self as well as other healthy persons will enhance their communication skills.

**AFFECTIVE DOMAIN:**

Through the continued practice of methodologies for both the Cognitive and Psychomotor Domain the attitude towards Ayurved as Holistic, preventive ,palliative approach of the students can be generated.

Through the comparative analyses of results of Prakriti, Agni-Koshta,Nadi etc.parikshan by means of Validated proformas for the same subject, research attitude can be developed among 1st .B.A.M.S. Learners.

**ASSESSMENT TOOLS:** Assessment is an ongoing process of evaluation of the collection of performance of the learners which when analysed can better assess the progress of the learner. Various tools described below can be used with scales/gradations for evaluation.

**COGNITIVE DOMAIN**

1. Examination – Examinations including question papers MCQs, SAQs, LAQs,
2. Observation - Knowledge expression during participation of the Debates, Group discussion, presentations, Questions asked by the students. Self direction for participation in various activities.
3. Assignment – Various assignments like completion of Record books, notes can be used as a tool.

**PSYCHOMOTOR DOMAIN:**
1. Observation- The observational skills of learner he/she attains from the facilitators and instructors can be assessed while giving presentation, group discussion, parikshanas, debates, etc.
2. Imitation skills - The skills learner achieved by imitating the procedures he has been instructed for.
3. Practice skills- The skills the learner has achieved by practicing the procedure like Prakriti, Nadi parikshan, etc. with increased perfection and efficiency, in less time.

**AFFECTIVE DOMAIN:**
Affective domain can be assessed stepwise as the learner transfers himself from one step to another, e.g. the attitude of student towards the concept of Prakriti can be assessed with the help of assessment tool shown below before, before the practice of prakriti parikshan, evaluation of cognitive domain and after the practice of prakriti parikshan, and evaluation.

<table>
<thead>
<tr>
<th>Levels/Attitude</th>
<th>Cognition</th>
<th>Affect</th>
<th>Behavioural intentions</th>
<th>Overall evaluation</th>
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<tbody>
<tr>
<td>Receiving</td>
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<td>Responding</td>
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<td>Organisation</td>
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<td>Characterisation by value</td>
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Here Cognition means the beliefs, expectancies, cause-effect beliefs and perceptions.
Affect means feelings towards the concept /belief like fear, anger or liking.
Behavioural intentions mean our beliefs, goals and the responses to achieve the goals.
Overall evaluation of the learner on the basis of enthusiasm, responsibility, ability to listen and respond towards any concept or programme, procedure, colleagues, family, patients and society.

**DISCUSSION:** The objectives of Competency based medical education can be applied to Ayurved education specifically for the Ayurved concepts in such a way that all cognitive, psychomotor and affective domains can be achieved by the learners through different methodologies. Also these competencies can be assessed with various tools. The role of the instructors and facilitators in the implementation of CBME in Kriya–Sharir is very crucial. The instructors must have attained the cognitive, psychomotor and affective domains in an effective manner.

**CONCLUSION:** Competency based education can be applied to Ayurved education specifically for the Ayurved concepts in such a way that all cognitive, psychomotor and affective domains can be achieved by learners in an effective way through different methodologies.

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