## **Brief Communication**

### Pharmacology Teaching by Concept Map Method

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Bangladesh Journal of Medical Science Vol. 22 No. 04 October '23 Page: 942-944 DOI: https://doi.org/10.3329/bjms.v22i4.67119

Concept map method or mind-map method is an accepted way of teaching. However, in the discipline of Pharmacology, it has not been tried in general. In most of the medical and pharmacy colleges, pharmacology is taught by traditional tools such as chalk and board, power point (PPT), didactic lectures, small group teachings, etc. One of us, joined the Saveetha Medical College and Hospital of Saveetha Institute of Medical and Technical Sciences, Chennai, in the recent past, and found a new method of teaching in addition to conventional teaching and learning methods. It was quite unusual to see that the Institute adapted in its medical education system a concept map teaching method<sup>1</sup> incorporated with small group discussion methodology<sup>2-3</sup>.

A concept map is an innovative teaching method which represents the information visually, which can engage and help the students to understand a new concept very easily. It is a powerful learning tool and very useful for visual learners, although it can help any type of learner by making it easier for them to understand and remember faster.<sup>1</sup>

We experienced that in most of the medical colleges and institutions, conventional PowerPoint lectures are mostly followed.<sup>4</sup> It is our observation, that there are only a few students who come up with good scores and most of the students come under the slow learner category. Most of them are not active in the class and convey through feedback that they don't know how to study. Consequently, while correcting answer sheets of students during the formative assessment in Saveetha, we realised the encouraging impact of the concept map on students' performance.

Most of the students performed well because of this innovative technique. So personally, we feel the PowerPoint lecture type method only works for fast learners. Gradually, we adopted this system of teaching in our Pharmacology classes. To cite few examples, please refer Figure 1 to 3. In Saveetha, it is a normal phenomenon to teach concept maps using Coggle software. Along with teaching concept maps, PDF soft copy of concept map lectures to students are given, and students write the same on the A3 white sheets. We have also created "Pharmacology Saveetha Maps" which contains the handwritten notes of our students covering all the topics in Pharmacology.

As a part of the final assessment during final examination, we gave all examinees their handwritten notes in compiled form and analysed their performance in the model examination. Most of the students did well. So, this innovative concept map teaching method worked well for both fast and slow learners. Fast learners, irrespective of all teaching methods, always give their best, but this concept map also helps slow learners to improve their performance.

We feel this concept map teaching method works on the principle that knowing something is better than knowing nothing. Slow learners can retain and learn very easily through this method and have better performance as the important points of the concept map lectures are given to them. Slow learners find a lot of difficulty in reading books, understanding the language and memorisation. They get exhausted because of the vast majority of portions to be covered

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## in Pharmacology.

So, it is advisable for fast learners to go for both concept map notes and books, and slow learners to go primarily for concept map notes. We also believe that this method will definitely help dyslexic students to save time in preparing for examinations and can provide self-satisfaction for students and prevent stress, depression etc, as they can cover the portions very quickly.

In conclusion, we believe this is the perfect time to shift from PowerPoint lecture type to the concept map teaching method. Figure 1

### **Acknowledgement:**

We would like to thank Dr. Deepak Nallaswamy, Director, Saveetha University, Chennai for implementing this novel technique of concept map teaching method for improving teaching skills and students' performance.

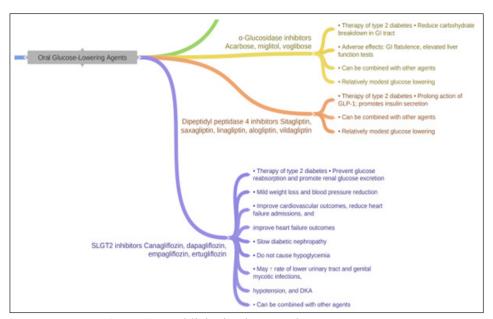


Figure 1: Antidiabetic pharmacology concept map

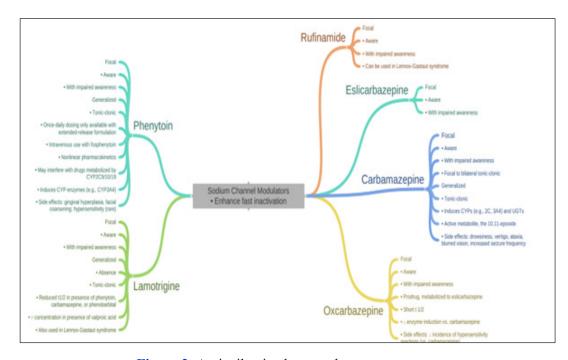


Figure 2: Antiepileptic pharmacology concept map

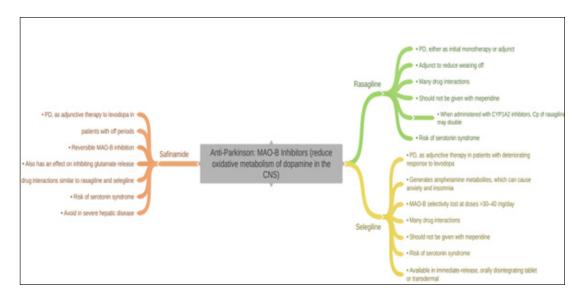


Figure 3: Antiparkinson pharmacology concept map

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