SOCIODRAMA
“RESPIRATORY ALKALOSIS”, IN BIOCHEMISTRY, AT THE CICS UMA-IPN

Pérez Magaña Blanca Elisa
``Centro Interdisciplinario de Ciencias de la Salud`` - Unit: Milpa Alta, ``Instituto Politécnico Nacional``

Quiroz Téllez Carlos
``Centro Interdisciplinario de Ciencias de la Salud`` - Unit: Milpa Alta, ``Instituto Politécnico Nacional``

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Abstract: The CICS UMA, being dependent on the National Polytechnic Institute, has as its daily academic work guide the educational strategies that emanate from the elements of the Institutional Educational Model (MEI). On the other hand, teaching requires the continuous training and development of teachers, establishing as priorities the continuous improvement of their teaching and research practice. The result of the above was the implementation of a learning strategy, such as the Sociodrama “A case of Respiratory Alkalosis” in the Learning Unit, Fundamentals of Clinical Nutrition I, Biochemistry in the respiratory system, in the Nutrition Career of the CICS UMA. Which led us to the representation of the thematic content of the program, resulting in the students being very participatory, it is dynamic, versatile and useful for the conclusion and feedback of the contents of a Learning Unit and it can be used with groups. numerous.

INTRODUCTION

The Interdisciplinary Center for Health Sciences (CICS UMA), being dependent on the National Polytechnic Institute, has as its daily academic work guide the educational strategies that emanate from the elements of the Institutional Educational Model (MEI), focused on learning. The student is the center of attention of the academic process, considering him an individual who builds his own knowledge with the support of the teacher. Comprehensive, high-quality scientific, technological and humanistic training that balances the development of knowledge, attitudes, skills and values. On the other hand, teaching requires the continuous training and development of the teacher, establishing as priorities the continuous improvement of their teaching and research practice. So we ask ourselves the following question. Can a Sociodrama in Biochemistry be implemented in the classroom?

Sociodramas is a learning strategy where the entire group actively participates. It consists of two or more people freely and spontaneously representing a real-life situation, assuming the roles of the case. In order for it to be better understood and treated by the group, both by the participants and by the rest of the group that acts as observers. The duration may vary, depending on the theme that you want to represent, it is considered a class giving time for questions and answers.

The basic material to carry it out: having a clear theme, what is going to be represented, a suitable place or space is required for the development of the scene, it can be a classroom, an auditorium, etc. Have volunteers from the same group to represent the characters of the case, do not let the words be the only thing in the performance, so that everyone hears and understands, you must speak with a clear, strong and unhurried voice. Sets can be made according to the theme, large paper or fabric signs to identify places, to represent a character that can be identified with a special costume. You can also use some easy-to-find materials that help make the performance more real (hats, handkerchiefs, a table, etc.). The dramatization must not be very long. (Garcia, V. A. 2017).

Sociodramas in general are used to present contradictory, problematic situations, ideas and contrasts, to then provoke discussion and deepening of the topic. It is the representation of some real-life event or situation in a physical space and with an involved audience (themselves), who after the theme represented, which is generally made by themselves, will participate by analyzing the situation in greater depth. They may be short theatrical performances with topics relevant to the participants in a talk, conference or other activity to provide feedback on a topic. (León, U. A. y Col. 2018)
DEVELOPMENT

The teacher implemented the learning strategy of a sociodrama “a case of respiratory alkalosis” from the U. A. Clinical Nutrition I, Biochemistry of the Respiratory Ap., in the nutrition major, for which the teacher carried out the script of the sociodrama represent.

Subsequently, three teams of eight students each were formed, to whom the complete sociodrama script was given at the beginning of the course where the participation of each member was clearly explained. Their action would be free and spontaneous in a clinical situation, a case of Respiratory Alkalosis, previously reviewed in class. Other members of the group were incorporated who would participate in the elaboration of the scenes, in the formation of the batons of each team, each one assuming the roles of the case, with the aim that it could be understood and treated by the group, both by the participants as well as the rest of the group who would act as observers. The participants of each team dressed appropriately for their character, set up their scenery, and the sociodrama was carried out by the three teams.

RESULTS

It begins in a soccer sports stadium where, due to the excitement caused by the excitement of the game, a spectator falls into alkalosis with fainting and is attended to by two nutrition students. When they are paying attention to the injured person, they are violently interrupted by a subject. influential person who, showing off his ignorance and his power, has them arrested by the authority and they end up at a POLICE delegation where things are clarified before the public prosecutor’s agents and an expert, the students are exonerated and congratulated for their action.

DISTRIBUTION IN ORDER OF APPEARANCE

TERESA  Student who is involved
LIC. BRIONES  Influential
POLICE AGENT  POLICE of the public ministry
LIC. SANTOYO  Public ministry agent
DR. HERNÁNDEZ  Legal medical expert
FRANCISCO  Spectator who suffers the accident
JUANITA  Francisco’s companion
ELENA  Student who is involved

SCENE 1: IT STARTS IN A FOOTBALL STADIUM

FRANCISCO  Bravo....let’s go team......tough on them, goal!!!Truncheon…truncheon…truncheon
(All this while hyperventilating while standing) she sits down and grips the chair.
JUANITA  Paco, Paco, What’s wrong with you, help, who knows what’s wrong with Paco.
ELENA  What’s up, Juanita? (approaches)
F "i, I don’t know, Paco was very excited, he got dizzy and it seems like he fainted.
ELENA  Yes, he’s passed out, what? Was he screaming a lot? (taking his pulse)
JUANITA,  If you see how crazy he gets when his team wins
ELENA  Teresa, come help me, it seems that Paco is in RESPIRATORY ALKALOSIS (calling Teresa)
TERESA  Let’s make him breathe his own air, here, I have a bag here (they put the plastic bag over his nose and mouth)
LIC. BRIONES  What's happening? Why do they want to suffocate this young man?,

POLICE!, POLICE! (throwing the girls). The POLICE approaches Lic. Briones, the Lic. shows some credentials.

POLICE: What's up, sir?

LIC. BRIONES Look, I'm very influential, these girls wanted to suffocate the young man, look, he's dead, ask for an ambulance and take these murderers away (the agent takes them away).

SCENE II THE POLICE OFFICER PRESENTS THEM TO THE PUBLIC PROSECUTOR’S OFFICE

POLICE Here I bring these, Mr. Briones sent them. He said that they were strangling a boy in the soccer game.

LIC. SANTOYO Did you see what happened??

POLICE No, but that Briones has a badge and says he is very influential. Don't you know him?

LIC. SANTOYO, I don't even know who it is, you know what happened.

ELENA Y TERESA Look, Paco went into respiratory alkalosis

LIC SANTOYO Moment one by one, there agent, take this one (the policeman takes Teresa)

LIC. SANTOYO What's your name?

ELENA Elena

LIC. SANTOYO Elena, What happened? Why were they going to strangle that guy?

ELENA Look, Lic. We weren't even going to strangle anyone and what happens is that everyone is ignorant.

LIC. SANTOYO Stop insulting authority and tell me what happened.

ELENA We were at the soccer game between the medicine major and nutrition major teams and they had just scored a goal. Juanita yelled at me because Paco fainted, so I, a medical student at CICS-UMA, discovered that Paco had respiratory alkalosis, so I spoke to Teresa and we put a plastic bag over his nose and mouth, because by breathing your own CO₂ Paco would get better. Then that crazy old man arrived, pushed us around and told the police officer that we were suffocating him, but the police officer who is a naco believes that suffocating and strangling are the same thing and then......

LIC SANTOYO A moment, I didn't understand anything, let me see what your friend says: Police!

POLICE Yes sir agent

LIC. SANTOYO Take this one and bring me the other one

ELENA This, because it is believed

LIC. SANTOYO Have you What is your name?

TERESA Teresa Chavarría Flores to serve you my Lic.

LIC. SANTOYO At least you are more educated than your partner, tell me what happened.

TERESA Well, look, we were at the soccer game and when the medical team scored a goal and someone shouted for help and then Elenita called me and said that Paco was suffering from alkalosis, I gave him a bag that we put in his mouth and nose. so that he could breathe the CO₂ and the carbonic acid that stimulates breathing will increase and before Paco could recover, the influential man shielded the policeman and said that Francisco was dead that's why they brought us here.

LIC. SANTOYO I don't understand anything, what is cramps? Police! Lock them up and talk to Dr. Hernández and go find out what happened to that Lic. Briones and that boy.
SCENE III THEY ARE IN A HEARING OF INQUIRIES

LIC. SANTOYO Gentlemen: we are here to clarify this crossword puzzle. They presented these two young women for attempted murder, but there is no accuser nor does the victim appear, however, they declared that while at a soccer game a spectator fainted and they were treating him, We are going to ask Dr. Hernández, who is an eminence as Medical Legal Expert of this delegation. What do you question the young women to determine responsibilities?

Dr. HERNÁNDEZ por favor............

DR. HERNÁNDEZ Teresa, no better Elena, who was the one who found out more, what happened

ELENA Look, doctor, at the soccer game, as Juana, Paco's companion, told me, he was very excited and apparently he was hyperventilating with or that he was eliminating a lot of CO₂, as you must know, when a lot is eliminated. CO₂ p due to ventilation, the carbonic acid in the blood decreases, thus losing the 20/1 ratio that must exist between the bicarbonate base and the carbonic acid. When this happens, individuals present a condition of respiratory alkalosis that manifests itself with daze, confusion. and there may be loss of posture with fainting, this is what happened to Paco, well when this happens in a subject the body triggers mechanisms that allow the acid-base balance to be recovered, it can be done in two ways, he wants Tere to do it for him. explain or you already know.

DR. HERNÁNDEZ I don't know, however, I never imagined that two students could explain it well, having Tere explain to me those two ways to correct an acid-base imbalance.

TERESA Look, Dr. HERNÁNDEZ, if, as Elena said, the 20 to 1 relationship between bicarbonate base and carbonic acid has been lost because the carbonic acid has decreased, to return to having the same relationship, either we also decrease the bicarbonate base or we increase the carbonic acid. The bicarbonate base is mainly handled by the Kidney, which retains or eliminates it as needed by the body, but in an emergency we can hardly handle it. On the other hand, carbonic acid is mainly handled by the respiratory system since, thanks to a carbonic anhydrase enzyme, carbonic acid is transformed into water and CO₂ and the latter is easily eliminated or retained with ventilation.

What happened to Paco was that when he was breathing very agitated he eliminated a lot of CO₂ and his carbonic acid decreased, so what we did was force him to breathe inside a bag so that he could breathe his own CO₂ that he was eliminating, with that the body It does the reverse reaction, that is, water plus CO₂ equals carbonic acid and quickly recovered its acid-base balance.

DR. HERNÁNDEZ Very well, they definitely left me astonished, I thought that perhaps they knew what to do, but not why they did it that way and I positively accept that I was wrong, Mr. agent!! Instead of having these young girls here as detainees, you must congratulate them! since, quite contrary to what I thought, they can save lives and I believe they can never take them.

The police officer whispers something in the ear of the Public Prosecutor’s Office.

LIC. SANTOYO Well, after the lecture you have given us, and the fact that Paco has already appeared, who is fine and very grateful to you, I only ask that you excuse me, but I did my duty.

Police!!! Go and look for this Mr. Briones,
I'm going to lock him up.

At the end of the three teams, a question and answer session was held to provide feedback on the content to be discussed in class.

**CONCLUSIONS**

A sociodrama could be implemented to represent a clinical problem of the contents of the Biochemistry Learning Unit of the Fundamentals of Clinical Nutrition II learning unit of the Respiratory Ap., it served to carry out feedback on the selected topic. The students showed a lot of enthusiasm and empathy with the teacher and his classmates and that in the end it was even fun for everyone and that in the end it served to establish a participatory dynamic of discussion of the contents addressed and a conclusion was carried out by the teacher and the group.

**REFERENCES**


