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## **The Seven C's of Teamwork From Dr. Eduardo Salas, Ph.D.**

### Executive Summary:

- Healthcare educational departments are focusing on cross-training clinicians
  - Teamwork in the medical setting significantly reduces mortality
  - Dr. Eduardo Salas has an extensive background in team development
  - He has 7 C's of successful teams which can be taught
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I recently attended the tenth annual Midwest Interprofessional Practice and Education (MIPERC) Conference in Grand Rapids, MI. The focus of the conference was to highlight the need of clinicians to understand each others areas of expertise and to work together effectively to achieve optimal outcomes for patients. One of the keynote speakers at this year's conference was Dr. Eduardo Salas, who has a degree in psychology and is a professor at Rice University in Houston, Texas.

Dr. Salas focuses on teamwork and has over 450 publications on this topic as well as several books. He is highly sought after for help in developing teams by a wide variety of industries. NASA is using his expertise to help identify the skills and psychological strengths of its Mars team. As he related at the conference, this will be a team of five to seven astronauts who will live in a very close environment for 30 months or so. Not only will they live in close quarters, they will have limited communication with Earth once they are on Mars because of the time it takes for a message to travel between the two.

Dr. Salas also works with the oil and refining industries around Houston to help develop processes and teamwork so that workers can be evacuated from oil rigs when hurricanes approach. He works with hospitals to improve teamwork.

Dr. Salas is able to get buy-in from CEO's and leaders of organizations because all of his work is evidence based and reduces costs. He is often asked CFO's what the return for organizations that follow his advice. He is able to show that groups he works with cut costs by 20-25% by developing effective teams. With clinicians he has significantly reduced mortality in hospital environments while improving the bottom line.

Dr. Salas says that there are 7 key C's for teams to be successful. They are Cooperation, Coordination, Communication, Cognition, Coaching, Conflict and Conditions. Cooperation is based upon the attitudes and beliefs of individual team members and shared by all of the team. Team members focus on success as a team and work effectively together. There is a strong level of trust. This trust gives rise to psychological safety, a key ingredient of any effective team.

Coordination is team members monitoring one another to help each do their best. Team members are keenly aware of and knowledgeable of the role of each other member and each is ready to assist another member if help is needed. Good teams work so well together that if an error is made the members collectively work to overcome it without hesitation.

Communication is saying what needs to be said at the right time. Some think that communication is the key to good teamwork but Dr. Salas says that this is not as important as other C's. He once observed a surgery where hardly a word was spoken and the outcome was remarkable. As each team member knew his own role very well and understood the role of the other members of the surgery team, there was not a need for a lot of communication. The surgical process flowed smoothly forward with only an occasional input from a team member.

Cognition is the mastery and skill in one's own team role. That is, each member of the team is very competent in completing his own task for the process the team is engaged in. Not only is the team member an expert in his own work, he is highly knowledgeable of the team norms, the team resources and the mission.

Coaching is the role of a team leader(s) and the leadership at the site where the team works. Good coaches work with team members to build efficiency and cohesion. They encourage each team member and work hard to build trust among team members, to increase the psychological safety of each member.

Conflict is the successful resolution of tension that can arise in any team. Rather than avoiding the tension, a team leader addresses it and helps lead to a resolution so that the team can continue to work effectively together. Good team leaders overcome any defensiveness between members that can arise from conflict and ensure the strengthening of psychological safety.

Conditions is the environment in which the team exists. A positive attitude towards teams by leadership at a site encourages the continual development of effective teams. Leadership is supportive by providing the needed resources for teams to thrive and achieve their objectives.

This is just a quick review of the foundations of Dr. Salas work. Teamwork can be taught and learned. For further study of his work and his recommendations for team building you can access many of his articles for free [here](#).

I was recently involved in a group that met to develop a survey instrument for assessing the success of our group's work in educating special needs students. There were four of us present, one being the leader of the project, with whom I have worked for many years and whom I see as one of the most effective leaders I have known. We each knew the others work for this project. I have visited the sites of instruction where two of our team members have worked with these students. Before we started the task for the day, I restated for the group the objectives:

1. Meet the needs of the full-time teachers of the students
2. Measure the key elements of what our group teaches
3. Develop questions that are able to detect growth in the students
4. Meet the requirements of the funders of the project

The team agreed to these objectives and the work went smoothly, although we did not always agree during the development process. Because we had a great deal of respect for each other and

because of the effective leadership, we created two instruments which we believe will be effective. Our work as a group mirrored the guidelines of Dr. Salas.

Through my years of attending the MIPERC conferences I see how important teamwork is to achieving any worthwhile goal in healthcare and in business in general. As Dr. Salas demonstrated, much better outcomes occur when teams work effectively together. I think that his 7 C's provide good insights into working well together. These benchmarks along with the AMA's STEPS *forward* module on team culture will help practice sites achieve their goals.

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