CRM (Crisis Resource Management) Training for Undergraduate Medical Students

Dr. Emin Aksoy
Capt. Plt. Bülent Boralı
Dr. Dilek Kitapçioğlu
Dr. Feray Güven
Dr. Erhan Sayalı
Why CRM?
How Hazardous is Healthcare?

The diagram illustrates the comparison of the hazard levels of different activities. Healthcare is categorized as 'DANGEROUS' with a rate of accident per 1000 people higher than that of activities like mountain climbing, bungee jumping, and chartered flights. The diagram suggests that healthcare has a higher rate of accidents per encounter compared to other regulated activities like driving and scheduled airlines. The focus on healthcare highlights its high-risk nature in comparison to other industries.

Lucian Leape, 2/2001
More than 400,000 patients are dying every year in USA by avoidable causes.

10-20 times of this number of patients are suffering every year in USA due to serious medical errors.

%70 of these errors are human related!

“A New, Evidence-based Estimate of Patient Harms Associated with Hospital Care”

James, John T. PhD
CRM in Aviation & Healthcare
CRM Instructor Training

• Official training for Airline Crews at Turkish Airlines Training Center - Istanbul
Course Instructors

• 4 CRM Instructors
  
  – 3 with medical background
  
  – 1 airline pilot with 20 years of airline and CRM experience
Why did we create a CRM Module for Undergraduate Students?

• Target Group more open to novelities
• To give the idea of CRM for their starting professional life
• Focusing on the importance of interdisciplinary approach
• To improve their teamwork concept and communication skills
Dirty Dozen

1. Lack of communication
2. Lack of knowledge
3. Complacency
4. Distraction
5. Lack of teamwork
6. Fatigue
7. Lack of resources
8. Pressure
9. Lack of assertiveness
10. Stress
11. Lack of awareness
12. Norms and violation
CRM Training Program

• CRM presentation (4 hours)

• Medical simulation sessions focusing on CRM Criteria (2 sessions-debriefings)

• Feedback form filled out by participants
Interdisciplinary Approach
Next steps

• Training for intern medical students and 4th grade nursing students together

• Postgraduate training for blue code teams

• Developing CRM based serious game modules designed for virtual reality.
Aim of our CRM trainings...
To Introduce The SHELL Model

The SHELL Model

Interrelationship between human factors and the aviation environment

S = Software
H = Hardware
E = Environment
L = Liveware

First developed by Edwards in 1972, with a modified diagram to illustrate the model developed by Hawkins in 1975.
- Avoid Threads And Conflicts
- Teamwork Concept
- Avoid Fixation Errors
- Shared Mental Status
- Problem Solving
- Communication
- Situational awareness
- Workload distribution
- Assertiveness

What’s right NOT Who is right