An attempt to equal rating of all OR team members´ team skills

*The Karolinska scale*

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Our mission: Evaluate teamwork training

- General: Training in working methods that decrease number of serious situations and complications (enhance patient safety)

- Specific: Training in teamwork in relation to complex procedures and crises

- Prerequisite: Training must result in behavioural change (more effective teamwork) in order to be worthwhile

- Training structure to be scrutinized: A highly structured and target-focused training approach (readings, seminars, lectures, demonstrations, targets, scenarios, feedback, debriefing, timing, role model, logisitcs etc.)

- Training processes to be measured:
  - Knowledge: Tests
  - Behaviour: Instrument for detection of Behavioural change
  - Affective components/attitudes: Questionnaires for Safety attitudes, Mental Strain, Flow, Engagement Modes, Self Efficacy, COPE, SIMS, and semi-structured exit interviews.
Criteria for a behavioural scale based on behavioural markers

- Generic **interpersonal skills**
- Assumes behaviours are **useful** for managing threat and error
- Language definition - all relevant behaviour components are defined as verbal anchors in neutral descriptions using **active verbs**
- Clear and unambiguous
- **For formative and summative use**
- Easy to understand for trainees
- Easy to adapt for trainers
- Easy to use for raters
- What operators say, do, write
- Not for attitudes, personal traits, or organisational factors

+ Leader and follower equally important for teamwork!
+ Possible to use for rating of all team members’ behaviours; leaders’ as well as followers’.
+ Taking initiatives, changing roles, effective use of resources (persons, cognitive, material, time)
<table>
<thead>
<tr>
<th>Team member's individual team skills</th>
<th>Good</th>
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<tbody>
<tr>
<td>Acts assertive in his / her role as leader or follower</td>
<td>gives constructive feedback on performance and stress, backups - accepts, organizes - accepts, takes initiative to STS – participates, takes responsibility, identifies resources, cultivates interpersonal relationships, opens up for critique</td>
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<tr>
<td>Communicates</td>
<td>Asks for information, speaks up, informs on unique competence and knowledge, resolves conflicts actively, uses close-loop, addresses specific and directed, knowledge-behaviour-affections aligned, distinguishes between order-question-information, listens, uses assertive statement, challenge-response, applies two-challenge rule</td>
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<tr>
<td>Contributes a build a shared mental model / situational awareness</td>
<td>gives ideas – recognises, gives cognitive support – accepts support, shares information, understands, anticipates, gathers information, re-evaluates, reflects, discusses, applies SBAR, reports deviation, asks about ambiguities, interprets information, regularly require information – deliver information,</td>
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<td>Contributes to collaborative decision making</td>
<td>invites, involves, raise questions on risks and options, makes a plan, revises plan, constructively pursues the decision process, calls for help, decides on actions – accepts decisions, delegates, prioritises, directs – accepts tasks,</td>
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<td>Coordinates his/her activities with others</td>
<td>coordinates activities, gives practical support – accepts support, utilises available resources (time, material, persons, cognitive), applies SOP's and guidelines,</td>
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Research questions

- Is the Karolinska scale applicable to use in different complex environments including liver transplantation?
- Is this scale feasible to use for formative assessment and feedback?
- Is this scale valid for both leaders and followers?
- Are good team skills as measured by the Karolinska scale related to the number of problems, errors and outcome for the patient?
- How can we improve training taking into consideration also affective components?

References

- Creutzfeldt J, Hedman L, Medin C, Wallin C-J, Felländer-Tsai L. Effects of Repeated CPR Training in Virtual Worlds on Medical Students’ Performance. MMVR 2008 to be presented