

Correlations Between Aspects Of Team Communication And Task Coordination During Medical Emergencies

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BACKGROUND

Up to 98.000 Americans die every year due to medical errors (Wachter, 2010). Ineffective team communication has been identified as a main reason for medical errors since it leads to ineffective task coordination (Lingard, 2004). Especially patient handovers during emergency situations are often a threat for patient safety (Greenberg et al., 2007; De Heer & Kluge, 2012). Yet there is to clarify, how communication between functional groups shall be shaped in order to be effective. Hints can be found in literature (Gittell, 2009).

This study analyzes the relationship between ...

- effective listening (listeners treat their opponent empathic, congruent and with unconditional positive regard)
- effective speaking (speakers make their contribution as informative as its required, true, relevant and clear)
- the use of closed-loop communication (listeners repeat a message back to avoid misunderstandings)
- effective task coordination (quality of the relationship and communication between emergency teams)

during patient handovers between emergency teams to develop implications for patient safety supporting communication.

RESEARCH QUESTION

How does effective task coordination correlate with effective listening, effective speaking and closed-loop communication?

METHOD

- Sample: 55 medical experts (mean = 38.4 years; ♀ = 25)
- Design: A non participative observation of 38 patient handovers
- Instrument: Online survey based on the German version of *The Relational Coordination Survey* by Gittell (Klingenhäger et al., 2014)

RESULTS

- A strong, highly significant correlation was found between **effective listening and effective task coordination** ($r_s = .73; p < .01$).
- A strong, highly significant correlation was found between **effective speaking and effective task coordination** ($r_s = .69; p < .01$).
- A strong, highly significant correlation was found between **effective listening and effective speaking** ($r_s = .71; p < .01$).
- A moderate, highly significant correlation was found between **effective listening and closed-loop communication** ($r_s = .37; p < .01$).

Correlations across teams regarding effective listening, effective speaking, subjective ratings in relation to closed-loop communication and effective task coordination

	effective task coordination	effective listening	effective speaking	closed-loop communication important
effective listening	.73**			
effective speaking	.69**	.71**		
closed-loop communication important	.22	.27	.17	
closed-loop communication frequent	.15	.37**	.24	.32*

Notes. N = 55; ** $p < .01$; * $p < .05$ (double sided significance test)

CONCLUSIONS

- Although 9 misunderstandings could be identified and cleared through closed-loop communication, **it was used only when misunderstandings were obvious**.
- The basic patterns of closed-loop communication are already being used implicitly during patient handovers by ambulance men and emergency experts.
- Closed-loop communication was rated differently concerning its importance by the various emergency teams. However, closed-loop communication is used in less than 50 percent of the observed handovers.

IMPLICATIONS

- Effective task coordination is estimated differently by the various emergency teams.
- Effective listening, effective speaking and closed-loop communication are vital for effective task coordination.
- In order to avoid misunderstandings that can be a threat for patient safety, **it is recommended to use closed-loop communication in every patient handover communication situation; not only when misunderstandings are supposed**.
- Workshops could be a adequate method to implement closed-loop communication in emergency rooms.

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