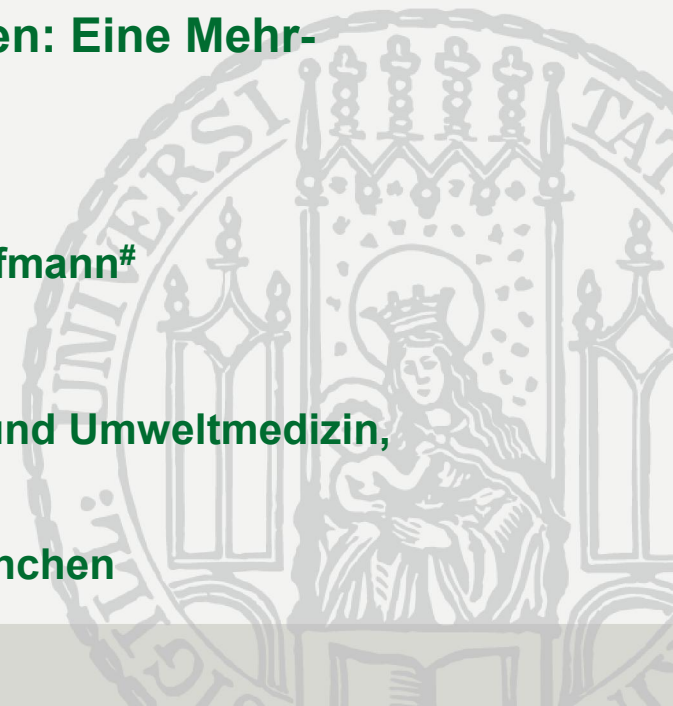


Teamarbeit in post-operativen Patientenübergaben: Eine Mehr- Methoden-Studie in der Pädiatrie

Matthias Weigl*, Maria Krause*, Julia Keil #, Florian Hoffmann#

*** AG AMPA, Institut und Poliklinik für Arbeits-, Sozial- und Umweltmedizin,
Klinikum der LMU München**

von Hainersches Kinderspital, Klinikum der LMU München





}} Bild post-op transfer (multi-disciplinary teamwork in healthcare delivery)



- Post-operative Übergaben
 - Kritischer Moment in der Versorgung [1]
 - Informationsübergabe
 - Potential für Informations-Verluste; Kommunikations-Probleme
 - Instruktionen für post-operative Versorgung
 - Fundamentaler Einfluss der Teamarbeit [2]
 - Interdisziplinär / ad hoc Teams
- ‚one-passive dump of information‘ -> ‚co-creation of shared understanding“ [3]



Fragestellung

- (1) Güte der interdisziplinären Teamarbeit während der Übergaben?
- (2) Konsistenz der Bewertungen?
- (3) Zusammenhang zu erlebtem Stress und Ablenkung?



Setting

Universitäts-Kinderklinik

OP – Pädiatrische Intensivstation (keine neo.)

Kombinierte Studie

Standardisierte Beobachtungen [1]

&

Standardisierte Befragung, inkl. NASA-TLX [2]



(identische Merkmale für) Beobachtungen/Befragung

Leadership (e.g., clearly defined team leader, good time management)

Teamwork (e.g., good coordination, mutually supportive, assertive)

Cooperation and Resource Management (e.g., performance of designated tasks for each member's role, plans made prior to action)

Communication and Interaction (e.g., clear communication with team leader as hub)

Workspace and Equipment (e.g., appropriate equipment available when needed, correct operation of equipment, functionality checked)

Situation Awareness (e.g., monitors visible, monitoring information gathered, recognition of patient state)



Sample

Erhebungszeitraum: 38 Übergaben

Einschluss: 31 (83.8%)

mittlere Teamgröße: $M=4.42$ ($SD=0.92$)

Fragebögen: 137 Beteiligte (insgesamt)

111 Fragebögen (81%)

Selbst-Berichte (Teamarbeit während Übergaben)

	Overall	Role-related differences		
	group (n=106)	Receiving sub- team	Handoff sub- team	Mean- Difference Test
	M (SD)	M(SD)	M(SD)	F(df=1); p
Leadership	3.82 (.72)	3.77 (.73)	3.85 (.72)	.29; .59
Teamwork	4.09 (.64)	4.00 (.69)	4.19 (.56)	2.22; .14
Cooperation & Resource Management	3.67 (.83)	3.57 (.77)	3.81 (.87)	2.18; .14
Communication and Interaction	3.91 (.73)	3.87 (.73)	3.96 (.78)	.38; .54
Workspace and Equipment	3.85 (.87)	3.93 (.84)	3.73 (.92)	1.27; .26
Situation Awareness	3.82 (.73)	3.74 (.78)	4.04 (.65)	4.41; .04
<i>Team performance (Overall)</i>	<i>3.87 (.57)</i>	<i>3.81 (.57)</i>	<i>3.93 (.57)</i>	<i>1.20; .27</i>

Note: Scale Range: 1='very poor'; 5='very good'. Receiving sub-team: n=57; Handoff sub-team: n=47.

Übereinstimmung im Team?

Table A-1: Agreements on team performance evaluations for overall-team and sub-teams

	Intra-Team Agreement		
	Overall-team	Receiving sub-team	Hand-off sub-team
Team Performance Characteristics	ICC	ICC	ICC
Leadership	.00	.40	.18
Teamwork	.06	.26	.34
Cooperation and Resource Management	.15	.58	.30
Communication and Interaction	.00	.15	.39
Workspace and Equipment	.02	.00	.43
Situation Awareness	.00	.27	.00
<i>Team performance (overall)</i>	<i>.00</i>	<i>.33</i>	<i>.40</i>

Note: n=31 OR PICU patient transfers.

Zusammenhang beobachteter Teamarbeit und Selbst-Bericht?

Table 3: Fixed regression estimates of expert-observer team evaluations and provider-reported mental demands, distractions, and stress during OR-PICU transfers

	Provider reports		
	Mental Demands	Distractions	Perceived Stress
Expert-observers rating	B [95% CI]	B [95% CI]	B [95% CI]
Team performance (overall)	.05 [-.39, .48]	-.72 [-1.44, -.01]	-.10 [-.29, .10]

Notes: B Regression Estimate, CI Confidence Interval, bold if $p < .05$.



- Limitationen: Beobachter-Effekt, Konstruktvalidität, Translation in klinische Performance, Kontext

Lessons:

- Innerhalb des Gesamt-Teams, wenig Konsistenz über die Güte der Teamarbeit
 - (moderate) Konsistenz für abgebendes vs. aufnehmendes Sub-Team [1]
 - Geteilte Ziele und Aufgaben-Merkmale
- Wenig Konsistenz zwischen den Beobachter-Urteilen und Team-Berichten [2]
 - Beobachtungen im Feld (Cave!)
- Unterbrechungen assoziiert mit schlechterer Teamarbeit [3]
 - Adverse Effekte von Ablenkungen/Unterbrechungen für Güte der Teamarbeit
 - unbeantwortet, wie Umfang/Güte übermittelter Information betroffen? [3]

}} Bild Hallway

Besten Dank für Ihre Aufmerksamkeit!

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matthias.weigl@med.lmu.de



Verteilung über Profession

26 ICU nurses (23.4%)

30 OR-anaesthetists (27.0%)

4 surgeons (3.6%)

31 ICU physicians (27.9%)

13 OR-anaesthesia nurses (11.7%)

7 providers, no indication of profession (6.3%).



Table 2: Provider- and expert-rated team performance during OR-PICU handover

	Aggregated Scores (per handover)			Mean Difference Test between sub-teams and expert-observer scores	
	Team self-ratings		Expert	Receiving sub- team vs. Observers	Handoff-sub-team vs. Observers
	Receiving sub-team	Handoff sub-team	observer ratings		
	M (SD)	M (SD)	M (SD)	T(df=30), p	T(df=29), p
Leadership	3.78 (.67)	3.88 (.58)	3.16 (.78)	-3.87, .00	-4.50, .00
Teamwork	4.02 (.57)	4.22 (.50)	3.69 (.64)	-2.44, .02	-3.95, .00
Cooperation & Resource Management	3.58 (.72)	3.83 (.83)	3.29 (.74)	-1.60, .12	-2.93, .01
Communication and Interaction	3.93 (.57)	3.97 (.72)	3.35 (.75)	-3.43, .00	-3.71, .00
Workspace and Equipment	3.94 (.60)	3.82 (.78)	3.19 (.87)	-4.50, .00	-3.58, .00
Situation Awareness	3.78 (.64)	4.07 (.63)	3.35 (.71)	-2.68, .01	-4.54, .00
<i>Teamwork (overall)</i>	<i>3.84 (.49)</i>	<i>3.97 (.51)</i>	<i>3.34 (.49)</i>	<i>-4.32, .00</i>	<i>-.5.37, .00</i>

Note: n=31 handovers; Scale Range 1='very poor', 5='very good'; M Mean, SD Standard deviation, r Pearson's Correlation Index; bold if p <.05.