

University of Cologne Faculty of Human Sciences Faculty of Medicine Institute of Medical Sociology, Health Services Research and Rehabilitation Science



Going back to Parsons: The GI factor in patient safety

Holger Pfaff

University of Cologne, Germany

Sydney, March 25th 2019

Australian Commission on Safety and Quality in Health Care (ACSQHC)





Aim of this talk: delivering food for thought

Do you have Key Performance Indicators (KPI) in Australia regarding...

- the levels of social capital in your hospitals and wards?
- the levels of transformational leadership in your hospitals and wards?

Do you promote ...

- social capital in your hospitals and wards in a systematic way?
- transformational leadership in your hospitals and wards?

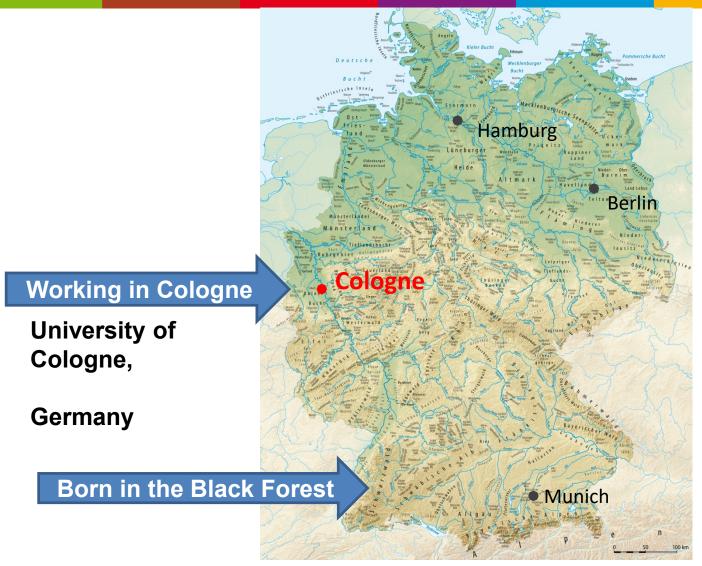
Do you have ..

social resources departments in your hospitals? (All have HR departments, but what about SR?)



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page 3 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement



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Institute of Medical Sociology, Health Services Research and **Rehabilitation Science**



Cologne

- founded 38 BC
- Largest city in North -Rhine-Westphalia
- 1.1 million inhabitants







Jonipoon (https://commons.wikimedia.org/wiki/File:Cologne_montage.png), "Cologne montage",

dia.org/wiki



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University of Cologne (est. 1388)

Status: Excellence university (one of eleven)

Faculties: 6

Clusters of Excellence: 4

Graduate Schools, including two

Excellence Graduate Schools 34

Collaborative Research Centres / Transregios: **12**

ERC-Grants: 20

Leibniz Prize Winners: 11

Alexander v. Humboldt Professorships: 4

UoC Centres: 16

Third-party Funding: **209.9 Mio. €** (Medicine **94.9 Mio. €**) (12/2017)

Total budget: **809.3 Mio. €** (Medicine **255.8 Mio €**) (12/2017)

Academic staff: **5,827** (including Professorship / including Clinical Staff) (12/2017)

Administrative and technical staff: **6,018** (including. Med. Faculty + Clinic without nursing staff) (12/2017)

Professors: 649 (12/2017)

Degree programme: 335 (WS2017/18)

Freshmen: 7,169 (WS 2017/18)

Students: 48,841 (WS2017/18)

Graduates: **7,862** (year of examination 2017)

Completed Doctorates: 741 (WS2017/18)



Fabian Stürtz



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page 5 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement Albertus Magnus





My official roles (past and present)

- 1. Elected member of the Review Board of the German Research Foundation (DFG) for the subject area Public Health, Health Services Research, and Social Medicine (since 2012, re-elected 2016)
- 2. Chairman, board of experts of the German Innovation Fund (appointed by the German Federal Ministry of Health) (since 2016, re-elected 2018)
- 3. Spokesman of the association of professors teaching health services research at German universities and universities of applied sciences (since 2016)
- 4. Deputy Chairman, German Network Health Services Research (2012-2014)
- 5. President, German Network Health Services Research (2006-2012)
- 6. Director, Institute of Medical Sociology, Health Services Research, and Rehabilitation Science (IMVR), University of Cologne
- 7. Director, Centre for Health Services Research Cologne (ZVFK), University of Cologne





Center for Health Services Research Cologne Member organisations

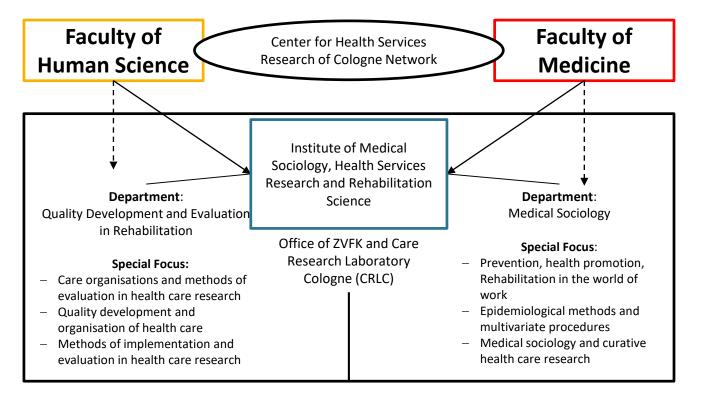






Institute of Medical Sociology, Health Services Research, and Rehabilitation Science (IMVR)

Connecting medical sciences and human sciences for better innovations and new possibilities





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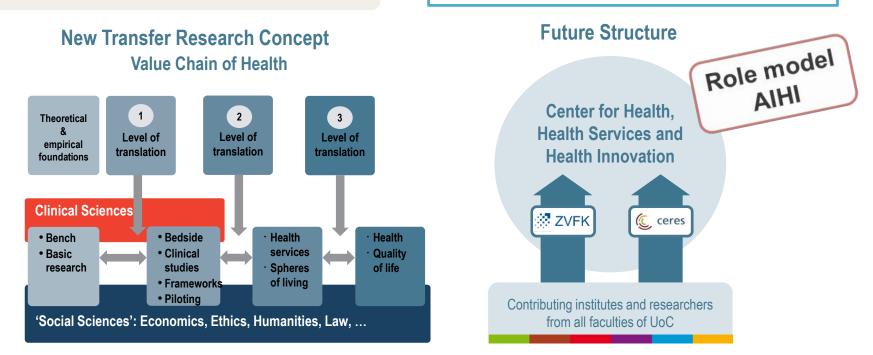


Vision and mission

Mission

- ✓ Transferring basic research to patients
- ✓ Innovations for patient centered health care
- Ensuring benefits for society (third mission)

Additionally: Identifying general preconditions for organisational performance in healthcare to improve health, health services and health innovation







Agenda

Background

Research model

Methods

Results

Discussion

Conclusions



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The problem

Healthcare organisations are multi-professional, multi-center and multi-cultural institutions with a variety of value-based goals.

These features make it difficult to coordinate staff, professional groups and departments efficiently and to integrate them under one overarching goal.





The theory challenge in patient safety and implementation research

Problems

- Limited effects of interventions in patient safety and implementation in general
- Incident reports show 1000 different reasons, each is specific (P. Hibbert, personal communication)

Image:

Black Box "Health Care"

Saying

"Can't see the forest for the trees"







The theory challenge in patient safety and implementation research

Solution

- "There is nothing so practical as a good theory" (Kurt Lewin, 1952)
- Using general theories to discover the underlying common patterns of incidents.
- We do have frameworks, models and concepts but rarely theories about healthcare







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Agenda: Research model

1. Going back to Parsons: The AGIL-concept

- 2. The G-factor: leadership
- 3. The I factor: social capital
- 4. The GI hypothesis



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What is the core of the problem in implementation with regard to health care organizations (HCO)?

Hidden images and mind set: e.g. HCO are machines

=> "only push the button"



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What is the solution?

=> Other images of health care organisations

Organisations Organisations Collectivities Individuals





Machines

Collectivities of individuals quite chaotic sometimes quite selfish sometimes

Coordination of individuals = central solution

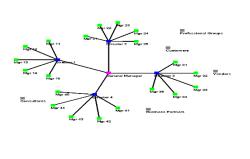




Organisations are social bodies



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Steindy

(https://commons.wikimedia.org/wiki/File:Deutsche_Fußballnationalmanns chaft_2011-06-03_(01).jpg), "Deutsche Fußballnationalmannschaft 2011-06-03 (01)", https://creativecommons.org/licenses/by-sa/3.0/legalcode

- Hospitals are collectivities which are more or less capable of acting as a unit
 - Hospitals are collectivities which are more or less up to the mark



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What makes a hospital healthy and fit?







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Answer of the structural-functional system theory (*Talcott Parsons*): Four healthy features

А	=	Adaptation			
G	=	Goal attainment	Α	G	
1	=	Integration	I	L	
L	=	Latency			

=> Hypothesis today: At least the GI factor makes them healthy and fit





AGIL scheme

- AGIL stands for adaptation, goal attainment, integration, and latent pattern maintenance.
- These are functional imperative that the system has to fulfill in order to flourish and survive.
- Parsons and Smelser put it this way:

"According to the general theory, process in every social system is subject to four independent functional imperatives or "problems" which must be met adequately if equilibrium and/or continuing existence of the system is to be maintained" (Parsons and Smelser 1956).



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 Parsons believes that the "systems of action generally could exhaustively be analyzed in terms of processes and structures referable to the solution – simultaneously or in sequence – of the four function problems that we called "adaptation", "system (not unit) goal attainment", "integration", "pattern maintenance and latent tension-management" (Parsons 1970).



page 21 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





A Adaptation

- Adaption is an instrumental process through which a system adapts the environment to the system or itself to the external environment (Murphy 2005, 7)
- Adaptation refers also to the fact that social systems (teams, organizational units, organization and society) have to alter the manner they use resources and redefine the roles to optimize the accomplishing of daily tasks (for higher order systems) and the functioning of the system (Powers & Fernandez 2012).
- It is necessary to reach goals and fulfills therefore as a means to an end an instrumental function for the system





G Goal attainment

- Goal attainment (G) is about the regulation of the "decisionmaking processes" (Parsons 1956).
- To function properly every social system must be able to decide and implement the decision in practice (Powers & Fernandez 2012).
- Goal attainment is a consummatory function which defines the ends of a social system and which mobilizes resources (human and other resources) to attain collective ends.





I Integration

- Integration (I) of a system is in social systems basically reached by a high level of social cohesion.
- In organizations this means that "constituent parts need to be able to work together" (Powers & Fernandez 2012).
- This function is in organization realized by the command of the more detailed and day-to-day support of the persons whose cooperation is needed (Parsons 1956).
- Integration is an end in itself and fulfills therefore as goal attainment – a consummatory function.





L Latency

- Latent pattern maintenance (L) means in organizations "the institutionalization of a value system which legitimizes both the goal of the organization and the principal patterns by which it functions in the attainment of that goal" (Parsons 1956).
- The aim is "to maintain the integrity of (...) the value system and it's institutionalization" (Parsons & Smelser 1956: 15) which has to be protected against external and internal forces to alter the value system.
- This function is as adaptation necessary to reach goals and fulfills therefore as a means to an end an instrumental function for the system.



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Agenda: Research model

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The G-factor

Goal attainment:

"Goal attainment is the process through which human and other resources are mobilized for the attainment of collective goals and purposes.

In a social system, the goal attainment functions are met through political activities and mobilization occurs through the generation and exercise of power"

(Oxford Reference: A dictionary of sociology)

Hypothesis:

A proxy for goal attainment is transformational leadership

http://www.oxfordreference.com/view/10.1093/oi/authority.20110803095856961

page 27 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





The G-factor Transformational leadership

"The extended literature suggests that there are at least six key behaviours associated with transformational leadership towards followers:

- (1) identifying and articulating a vision,
- (2) providing an appropriate model,
- (3) fostering the acceptance of group goals,
- (4) high-performance expectations,
- (5) providing individualised support and
- (6) intellectual stimulation".

(Hillen et al. 2015)





The G-factor

Transformational leadership: Why generally important?

- 1. Without vision, no movement
- 2. Without emotional contagion of followers, no followers
- 3. Without fostering a we-feeling, collective action is less likely

Transformational leadership: Why specifically important for patient safety?

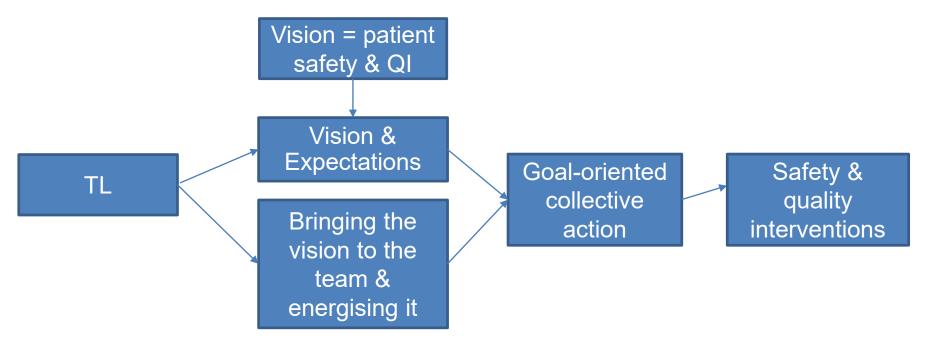
- 1. Patient safety needs vision, action and change
- 2. Patient safety needs leadership with high expectations and followers
- 3. Patient safety needs supportive leadership





The G-factor Transformational leadership (TL) in action





page 30 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





The G-factor TL and outcomes

The association between transformational leadership in German hospitals and the frequency of events reported as perceived by medical directors

Hendrik Hillen, Holger Pfaff & Antje Hammer

To cite this article: Hendrik Hillen, Holger Pfaff & Antje Hammer (2015): The association between transformational leadership in German hospitals and the frequency of events reported as perceived by medical directors, Journal of Risk Research, DOI: <u>10.1080/13669877.2015.1074935</u>

To link to this article: <u>http://dx.doi.org/10.1080/13669877.2015.1074935</u>

The Relationship Between Transformational Leadership and Social Capital in Hospitals—A Survey of Medical Directors of All German Hospitals

Antje Hammer, Dipl Soz; Oliver Ommen, MD, MPH; Julia Röttger, MSc; Holger Pfaff, PhD





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The I-factor

Integration

"The fourth functional imperative for a social system is to 'maintain solidarity' in the relations between the units in the interest of effective functioning: this is the imperative of system integration" (Parsons & Smelser 1956: 18)

A proxy for integration is social capital (or social cohesion)





Social capital

Features

"Social capital is defined as a network of connections, primarily expressed by common convictions, collective values and mutual trust in the social relationships between members of a social system" (Pfaff et al. 2004) The elements of the social capital are:

- Social cohesion
- Trust
- Mutual social support
- "good climate"
- Sense of unity
- Sense of agreement

Pfaff, H., Badura, B., Pühlhofer, F., & Siewerts, D. (2005). Das Sozialkapital der Krankenhäuser - wie es gemessen und gestärkt werden kann. In B. Badura, H. Schellschmidt, & C. Vetter (Eds.), Fehlzeiten-Report 2004. Gesundheitsmanagement in Krankenhäusern und Plegeeinrichtungen; Zahlen, Daten, Analysen aus allen Branchen der Wirtschaft (pp. 81–109). Berlin: Springer.

Cohen, D. und Prusak, L. (2001): In Good Company. How Social Capital Makes Organizations Work. Harvard Business Press, Boston. Badura, B. (2007): Grundlagen präventiver Gesundheitspolitik: Das Sozialkapital von Organisationen. URL: http://www.unibielefeld.de/gesundhw/ag1/downloads/sozialkapital.pdf (Stand: 21.04.2009).

page 34 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement



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Institute of Medical Sociology, Health Services Research and Rehabilitation Science



JAMA

Online First

APRIL 10, 2019

VIEWPOINT

Trust in Health Care Building Trust Between the Government and Clinicians: Person to Person and Organization to Organization

Peter V. Lee, JD; Donald Berwick, MD; Christine A. Sinsky, MD

JAMA CLINICAL GUIDELINES SYNOPSIS

Diagnosis and Management of Crohn Disease

Lauren Feld, MD; Laura R. Glick, BA; Adam S. Cifu, MD

Building trust between clinicians and the government requires understanding, empathy, and humility. Those who set policy need to understand and empathize with the position of the clinicians whose lives they shape, and have the humility to realize that policies are not the only lever by which to drive quality and ensure appropriate use of resources. Equally, clinicians and the professional societies that represent them should strive to understand and empathize with the policy makers' imperative to be responsible stewards of public resources, and also acknowledge the contribution some clinicians have made to the current health care

Effect of Crohn Disease Biologics

POLITICS FEDERA

Distrustful nation: Australians lose faith in politics, media and business

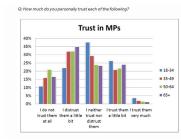
By Michael Koziol, Political reporter Updated January 21, 2017 - 12,08am, first published January 20, 2017 - 11.45pm

<u>A</u> A A

Who do you trust? Increasingly the answer seems to be: nobody

After a year when voters worldwide thumbed their noses at mainstream politics and the elite, a landmark annual survey has found trust in major institutions is eroding at a rapid rate. And the effect is particularly pronounced here in Australia.

https://www.smh.com.au/politics/federal/distrustful-nation-australianslose-faith-in-politics-media-and-business-20170118-gttmpd.html



https://www.moadoph.gov.au/blog/who-do-you-trust-to-run-the-country/





HCO are social systems and collectivities with certain problems

Problem 1

There is a low probability that collectivities will become acting units

Problem 2

There is even a lower probability that collectivities are effectively and efficiently acting units



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Solution: Social capital

According to Coleman and Putnam

social capital consists of those features of social organisation that not only act as resources for individuals, but also facilitate collective action for mutual benefit.



Coleman, J. S. (1988). Social capital in the creation of the human capital. American Journal of Sociology, 94(Supplement), 95-120 **Putman, R. D. (1995).** Bowling alone: America's declinig social capital. Journal of Democracy, 6(1), 65-78

page 37 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





The I-factor

Social capital: Why generally important?

- 1. Leads to better coordination
- 2. Lowers costs for security
- 3. Precondition for collective action
 - 1. The capability of a collectivity to act is not given per se
 - 2. This capability and the collective action must be produced every day
 - 3. Social capital fosters this capability

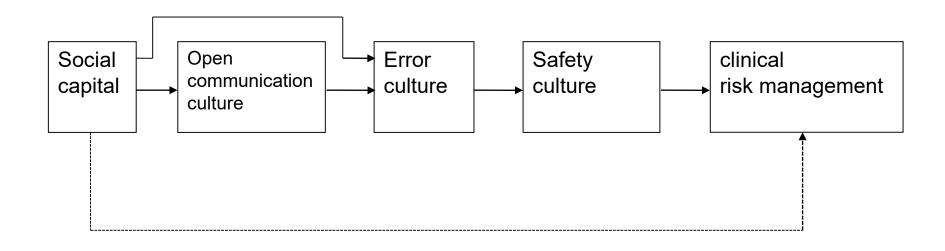
Social capital: Why specifically important for patient safety?

- 1. Safety requires talking about mistakes and problems (error culture)
- 2. Error culture requires open communication
- 3. Open communication requires trust as a basis
- 4. Trust is a central feature of social capital





The safety culture model



Pfaff, H., Hammer, A., Ernstmann, N., Kowalski, C., Ommen, O. Sicherheitskultur: Definition, Modelle und Gestaltung Zeitschrift für Evidenz, Fortbildung und Qualität im Gesundheitswesen 2009; 103(8): 493-497.

page 39 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





The I-factor: Results of our working group

Social capital fosters quality management/coordination/innovation

OPEN CACCESS Freely available online

O PLOS ON

The Relationship between Social Capital and Quality Management Systems in European Hospitals: A Quantitative Study

Antje Hammer¹⁷, Onyebuchi A. Arah^{2,3}, Maral DerSarkissian², Caroline A. Thompson², Russell Mannion⁴, Cordula Wagner^{5,0}, Oliver Ommen¹, Rosa Sunol^{7,8}, Holger Pfaff¹, on behalf of the DUQUE Project

J Nurs Care Qual Vol. 24, No. 4, pp. 340-347 Copyright © 2009 Wolters Kluwer Health | Lippincott Williams & Wilkins

Social Capital and Risk Management in Nursing

Nicole Frustmann, Dr rer medic, RN: Oliver Ommen, MD, MPH: Elke Driller, Dr rer medic; Cbristoph Kowalski; Melanie Neumann. Dr rer medic: Sabine Bartbolomeyczik, Prof, Dr; Holger Pfaff, Prof, Dr

The purpose of the study was to examine the relationship between social capital and clinical risk management in hospitals from nurses' perspective. The results of our investigation suggest that higher values of social capital are associated with better ratings in clinical risk management be-havior. An established atmosphere of trust and a feeling of common values and convictions can help nurses integrate clinical risk management into their daily work. Key words: clinical risk management, bealth services research, social capital, teamwork, trust

Social capital and quality emphasis: A cross-sectional multicenter study in German hospitals

Nicole Ernstmann, Elke Driller, Christoph Kowalski, Ute Karbach, Julia Jung, Holger Pfaff, Oliver Ommen

Institute for Medical Sociology, Health Services Research and Rehabilitation Science, University of Cologne, Germany

Nicole Ernstmann, IMVR – Institute for Medical Sociology, Healt Services Research and ole Ernstmann Rehabilitation Science University of Cologne, Eupener Str. 129, 50933 Cologne, Germany uk-koeln.de

Correspondence to:

Int J Public Health (2010) 55:561-570 DOI 10.1007/s00038-010-0195-7

ORIGINAL ARTICLE

Communication, social capital and workplace health management as determinants of the innovative climate in German banks

Thorsten Köhler · Christian Janßen · Sven-Christoph Plath · Jens Peter Reese Jann Lay · Simone Steinhausen · Tristan Gloede · Christoph Kowalski Frank Schulz-Nieswandt · Holger Pfaff

Journal of Interprofessional Care, 2012; Early Online: 1-6 © 2012 Informa UK, Ltd. ISSN 1356-1820 print/ISSN 1469-9567 online DOI: 10.3109/13561820.2012.724125

informa healthcare

Is social capital as perceived by the medical director associated with coordination among hospital staff? A nationwide survey in German hospitals

Tristan D. Gloede, Antje Hammer, Oliver Ommen, Nicole Ernstmann and Holger Pfaff

Institute for Medical Sociology, Health Services Research and Rehabilitation Science, University of Cologne, Cologne, Germany

March 25th | Sydney | It takes two to tango: The GI factor in patient safety and guality improvement page 40





Agenda: Research model

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GI: the concept of the systemic capacity to act

- H1: Individual energies + lack of integration = chaotic collective energy
- H2: Individual energies + integration

- = bundled collective energy
- H3: Bundled collective energy + guidance = goal-oriented bundled collective energy





The GI-factor model: It takes two to tango

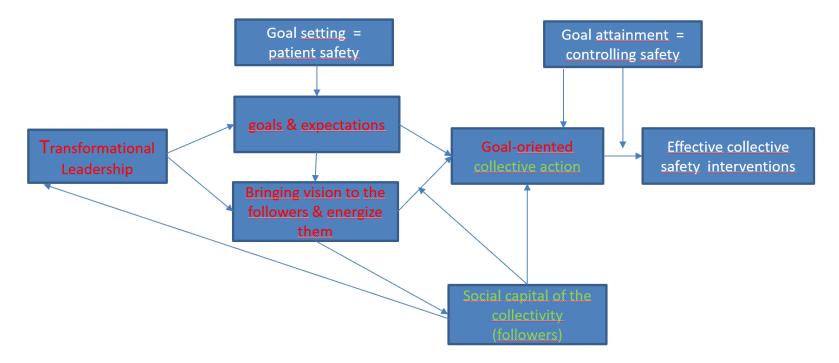
The GI hypothesis: the combination of goal attainment and social integration in the sense of high TL and high social capital is conducive to patient safety activities

	Integration = low	Integration = high
Goal attainment = high	Patient safety activities = middle (GI = 1)	Patient safety activities = high (GI = 2)
Goal attainment = low	Patient safety activities = low (GI = 0)	Patient safety activities = middle (GI = 1)





The leadership-social capital-model of patient safety







Hypothesis: Transformational leadership (TL) and social capital (SC) are preconditions for quality improvement (QI) & patient safety (PS)

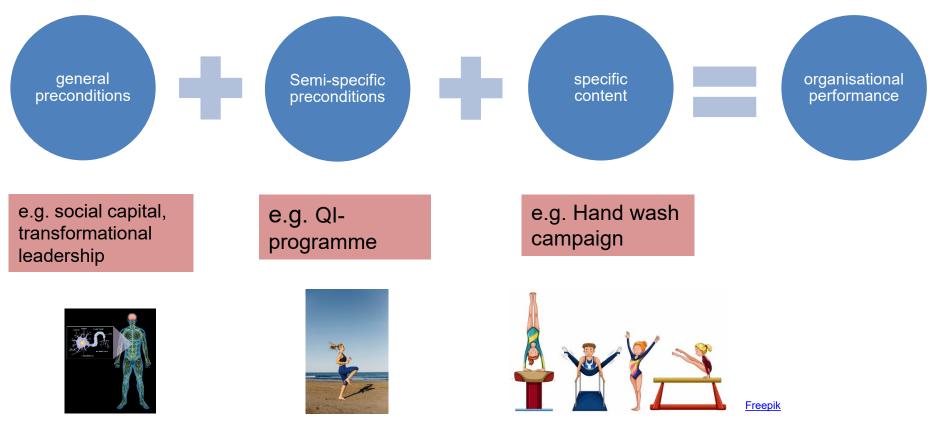
To put it in another way:

- TL + SC are unspecific & generic success factors
- TL + SC can be programmed for different purposes
- TL + SC are necessary, but not sufficient conditions for high performance, e.g in QI





Organisational performance in healthcare: Formula







Agenda

- Background Research model **Methods** Results
- Discussion
- Conclusions



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Methods

Methods:

- Data collection between April and October 2008
- Cross-sectional, retrospective postal-mail survey
- 1224 medical directors from German hospitals
 Inclusion criterion: one internal medicine and one surgery unit

Results:

- Response rate of about 45% (n=551)
- ➢ 40.9% teaching hospitals
- Average number of beds = 348.69 (range: 35 2210 beds, SD: 285.86 beds)
- Mean value of social capital = 2.90 (SD: 0.49) (4-point Likert scale ranging from 'I strongly disagree' (1) to 'I strongly agree' (4))
- Mean value of overall perceptions of safety = 3.62 (SD 0.63) (5-point Likert scale ranging from 'I strongly disagree' (1) to 'I strongly agree' (5))





Methods: Measure "Transformational Leadership"

Transformational leadership

Executive managers lead by example

Executive managers have ideas that have

forced their staff to rethink some of their

own ideas, which they have never

questioned before

Executive managers behave in a manner

that is thoughtful of their staff's feelings

Executive managers inspire others with

their plans for the future

Executive managers develop a team

attitude and spirit in the staff in their

department

Executive managers show that they expect

a lot from their staff





Methods: Measure "Social Capital"

ltem	Community elements of social capital	Items of the SOCAPO-E instrument
1	Mutual understanding	In our hospital, there is unity and agreement.
2	Trust	In our hospital, we trust one another.
3	We-feeling	In our hospital, there is a "we feeling" among the employees.
4	Warm circle	In our hospital, the work climate is good.
5	Mutual help & reciprocity	In our hospital, the willingness to help one another is great.
6	Common values	In our hospital, we share many common values.





Dependent variable "Perceived clinical risk management"

The following statements pertain to your view on how your hospital deals with risks associated with medical treatment.

Items

- Here in our hospital, everything is done to determine the causes of critical incidents that have occurred.
- Appropriate actions are always taken following a near-accident.
- In our hospital, all nosocomial infections are reported.
- Each day we work to improve the safety of our patients.
- The quality of our services is very good.
- We have treatment-related accidents under control.

These items scored on a 4-point Likert scale ranging from 'I strongly disagree' (1) to 'I strongly agree' (4). Range: 6-24; Cronbach's Alpha: 0.78

Ernstmann, N., Ommen, O., Driller, E., Kowalski, C., Neumann, M., Bartholomeyczik, S., & Pfaff, H. (2009). Social capital and risk management in nursing. Journal of Nursing Care Quality, 24(4), 340–347.

Pfaff et al. (2004). Der Mitarbeiterkennzahlenbogen (MIKE). Universität zu Köln (Forschungsbericht 4/2004)

page 51 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





Agenda

Background Research model Methods **Results** Discussion Conclusions

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Result of multiple regression analysis

	Regression- coefficient	p-value	CI	Regression- coefficient	p-value	CI
	Restricted m	nodel		Full model		
Constant	18.948	< 0.000	(18.47, 19.43)	17.56	< 0.01	[17.01 , 18.11]
Private Hospital (reference category: public hospitals)	.565	n.s.	(-0,18, 1.31)	0.50	n.s.	[-0,19 , 1.18]
Charitable Hospitals (reference category: public hospitals)	.163	n.s.	(-0.32, 0.64)	0.11	n.s.	[-0.33 , 0.55]
Teaching hospital (yes: 1; no: 0)	.068	n.s.	(-0.43, 0.56)	-0.01	n.s	[-0.47 , 0.44]
No. of beds	001	<0.05	(-0.002, 0.000)	-0.001	<0.05	[-0.002 , 0.00]
GI = 1 (transformational leadership = 1 and social capital = 0 and vice versa) (Reference category: GI = 0)				1.14	< 0.00	[0.51,1.67]
GI = 2 (transformational leadership = 1 and social capital = 1) (Reference category: GI = 0)				2.47	< 0.000	[1.98 , 2.95]
Explained variance	0.022	<0.05		0.185	< 0.000	
Delta explained variance full model – restricted model				0.162	< 0.000	

page 53 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





Agenda

Background Research model Methods Results **Discussion** Conclusions



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Limitations

- Key-informant-approach
- Response rate: 45%
- Common method variance
- Subjective data
- Cross-sectional data
- No causality test & unclear direction of causality





Discussion

- We analysed data from the German medical directors' point of view.
- A significant association was found between the combination of perceived social capital and transformational leadership in hospitals on one side and the perceived clinical risk management on the other side.
- To confirm this result further studies using different methods of measurement are needed.





Agenda

Background Research model Methods Results Discussion **Conclusions**



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Conclusion

- 1. The results of this study emphasise the possible importance of the GI factor for patient safety issues: A combination of transformational leadership (TL) & social capital may be a prerequisite for collective safety actions.
- 2. The Social Capital of Healthcare Organisation Scale could be used as KPI to assess and monitor the development of social capital in hospitals and other healthcare organisations over time and to identify social capital deficits in certain hospitals and/or certain areas of the hospital.





Conclusion

- The short form of the Transformational Leadership Scale could be used as KPI to assess and monitor the development of transformational leadership in hospitals over time and to identify deficits in certain hospitals and/or certain areas of the hospital.
- 4. Steps toward risk management could benefit from investments in the social capital of hospitals, in the training of TL and in hiring and promoting TL-prone supervisors and SC-contributing employees





The broader view: ongoing Projects at IMVR

Department	Research projects	Funding institution	Direct Funding
Medical Sociology	isPO : Integrated, cross-sectoral Psycho-Oncology	Innovation Committee (Innovationsausschuss) of the Federal Joint Committee (G-BA)	1.15 m AUS
	Routine Survey : Patient Survey at the Breast Centers	Breast centers NRW	2.30 m AUS
	PREK : Precarious Employment and self-rated Health in Germany	German Research Foundation	0.43 m AUS
Health Services Research	AdAM : Application for digitally supported Pharmacotherapy Management	Innovation Committee (Innovationsausschuss) of the Federal Joint Committee (G-BA)	0.18 m AUS
	VaMB : Value Stream Mapping in Breast Cancer Centers – a solution approach to improve the discharge process	Innovation Committee (Innovationsausschuss) of the Federal Joint Committee (G-BA)	0.58 m AUS
	MamBo : People with Multimorbidity in Outpatient Care – patient-focused and needs-oriented healthcare management	Innovation Committee (Innovationsausschuss) of the Federal Joint Committee (G-BA)	0.77 m AUS





The broader view: ongoing projects at IMVR

Department	Research projects	Funding institution	Direct Funding
Rehabilitation Science	BGM Innovative : Workplace, cross- provider Healthcare Management of Company Health Insurance Funds	Innovation Committee (Innovationsausschuss) of the Federal Joint Committee (G-BA)	0.95 m AUS
	OrgValue : Characteristics of Value- Based Health and Social Care from Organizations' Perspective (part of CoRe-Net)	Federal Ministry of Education and Research (BMBF)	See CoRe-Net
Working Group LiVe	APVEL : Evaluation of specialized outpatient Palliative Care	Innovation Committee (Innovationsausschuss) of the Federal Joint Committee (G-BA)	0.40 m AUS
	MAU-PD : Multidimensional Analysis of Causes for the low Prevalence of ambulatory Peritoneal Dialysis in Germany	Innovation Committee (Innovationsausschuss) of the Federal Joint Committee (G-BA)	0.86 m AUS
	CoRe-Net : Cologne Research and Development Network	Federal Ministry of Education and Research (BMBF)	3.1 m AUS
NRW Research College GROW	Gerontological Research On Well- Being	Ministry of Culture and Science North Rhine Westphalia	3.0 m AUS

For further information see: <u>http://www.imvr.de/en/research/projects</u>

page 61 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement





Future collaborations: concrete plans

Торіс	Collaboration with
Paper on GI factor (& Market-Clan)	Jeffrey
Ageing	Johanna, Joyce, Amy, Mikaela
Shadowing techniques	Frances
DuQuA & DuQuE	Robyn, Pei
Multidisciplinary Tumor Conferences	Gaston; (Nicole & Lena, University Bonn and Oldenburg)

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Thank you very much for your attention.

page 63 | March 25th | Sydney | It takes two to tango: The GI factor in patient safety and quality improvement