Improving interspecialty collaboration between doctors in complex patient care

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Amsterdam
EAPM 2017 Barcelona
Increased complexity of health care
Complex care

Several complex medical problems

Patient

Subspecialism B

Uncertainty and clinical dilemmas

Subspecialism A

Subspecialism D

Subspecialism C
A complex case
A complex case
COLLABORATION INEFFECTIVE

- Suboptimal decision making
- Delay treatment
- Ineffective communication patient and family
- Dissatisfaction
Collaboration in complex patient care

Models of complex patients focus on patiënt, disease and health care level\(^1,2,3,4,5\)

Intraprofessional barriers may raise the biggest barrier for doctors\(^6\)

Conflicting views and interests between different specialisms can have large impact health care\(^7,8,9\)

7. Hewett DG et al. Social Science and medicine 2009
Working Model for complex patients from a collaborative perspective

1. Component complexity\textsuperscript{1}:
   - Complex biomedical problems
   - Simultaneous care of various different medical specialties

2. Coordinative complexity and uncertainty\textsuperscript{1,2}:
   - Decisional dilemmas due to interrelated problems
   - Biomedical, psychosocial and/or health care level

3. Intraprofessional complexity\textsuperscript{3,4,5}:
   - Conflicting views and interests between different medical specialties
   - Technical management and process of care

2. Uncertainty in medicine. Lancet 2010
3. Hewett DG et al. Social Science and medicine 2009
“It’s impossible to remove the human substrate from clinical work”
Discomfort in human factors

UPPERCURRENT

Medical technical issues

Explicit

UNDERCURRENT

Conflicting interests

(Inter)Personal factors

Implicit
Hospital based training program for improving multidisciplinary collaboration

Started 2015 in VU University Medical Center

Mandatory for all medical specialists
CCT
(Complex Collaborative care Training)
Relevant medical topics

1. ICU
2. ICU Children
3. Chronic pain patient
4. Oncology
5. Hematology
6. Complex labour
7. Complex fractures
8. End Stage Renal Disease
9. Transplantation
10. Spinal trauma
11. Neurovascular disease
12. Neuro psychiatry
13. Breast care
14. Diabetes care
15. Auto intoxication in ER
16. Vulnerable older patient
17. MPU
18. Rehabilitation aftercare
Logistic frame

- 1 Topic
- Training time: 4 hours
- Group: 8-12 “topic related” participants
- Minimum of 3 different specialism
- 2 facilitators
## Results 2015-2016

22 trainings

<table>
<thead>
<tr>
<th>Participants</th>
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<td>Medical Specialist</td>
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Goals for the training

1. Increase awareness for collaboration in complex cases
2. Learn interpersonal skills
3. Relationship building
“Out of the comfort zone”

Where the magic happens

Your comfort zone
“Out of the comfort zone”

“Energy”

Action

Reflection

1. MEDICAL TECHNICAL

2. PATIENT

3. PERSONAL VIEWS

Professional views

Specialist

Generalist

Human
RESISTANCE

inability
Program

1. Case discussion using model
2. Personal profile
3. Practise cases/scenarios
1. Case discussion

Questions:

1. What was the decisional dilemma?

2. What were different views and interests of specialist physicians involved?

3. How did communication go and what were consequences?
1. Case discussion

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2. What were different views and interests of specialist physicians involved?

3. How did communication go and what were consequences?
“Everything went well”
Factors influencing success

1. Group factors
   • Participants knowing each other
   • Atmosphere

2. Personal factors
   • Position in hierarchy/authority
   • Motivation
   • Specialty? No

3. Links with practice
   • “Real” cases
   • Structural intraprofessional conflicts/difficulties in relationship

4. Trainers
   • Faculty development: management of resistance
2. Personal profile Insights

- COOL BLUE:
  - cautious
  - precise
  - deliberate
  - questioning
  - formal

- FIERY RED:
  - competitive
  - demanding
  - determined
  - strong-willed
  - purposeful

- EARTH GREEN:
  - caring
  - encouraging
  - sharing
  - patient
  - relaxed

- SUNSHINE YELLOW:
  - sociable
  - dynamic
  - demonstrative
  - enthusiastic
  - persuasive
Results 2015 evaluation

90% response

Average score: 8,0
Results 2016 evaluation

100 % respons

Average score: 8.2
Results 2015 evaluation

90% response

"I gained more insights in my personal interaction style": average score 4.1 on a 5-point scale.

"I will use what I learned in practice": average score 4.6 on a 5-point scale.

99% of participants recommended training to other colleagues
Results 2016 evaluation

100 % respons

"I gained more insights in my personal interaction style": average score 4.3 on a 5-point scale.

"I will use what I learned in practice": average score 4.9 on a 5-point scale.

99% of participants recommended training to other colleagues
Conclusion

Effective collaboration in complex cases requires physicians openly discuss dilemmas, conflicting views and (inter)personal factors involved in patient management.

Groups in practise but also in “safe environment” are reluctant to do so.

Culture: out of the comfort zone

More awareness and skills are needed to improve TeAMS and CCT well rated by physicians
Thank you very much for your attention!

Thanks to all the people of the team

TeAMS
Top & Teamplayers

TeAMS-Vumc@vumc.nl
Factors contributing to success

• Practice based
  Relevant topics
  Patient centred authentic cases/clinical scenarios

• Participant based
  right balance in and out of comfortzone

• Learn practical skills

• Strategic level: training mandatory
Conclusion

Conflicting professional views and identities form an important barrier for effective interprofessional communication.

In practice, doctors overcome these by using interpersonal skills.

We developed a training that was effective in learning these skills.

Success factors: correspondence to practice/real life.
Conclusion

Interprofessional communication training

Obstacles behavior steered from professional identity

Increase awareness personal styles

Evaluations were goog
Challenges

Resistance to change

Presence of participants of all specialism and disciplines at the same time
Tension between daily tasks and presence for training

Complaints etc
Challenges

Resistance to change

Presence of participants of all specialism and disciplines at the same time
Tension between daily tasks and presence for training

Complaints etc
Patient-centered team situations

- **Acute cases**: simulation training

- **Complex cases**: communication training in complex multidisciplinary situations

- **Multidisciplinary Team Meeting Observation**
Basic concept of health care

- Patient
- Medical problem
- Doctor
- Help, solution
Increased complexity of health care
Increased knowledge and technique
Increased multi morbidity

Complex medical problems
Help, solution
Specialized doctor
Help, solution
Specialized doctor

Doctor
Patient
Specialized doctor
Doctor
Specialized doctor
Doctor
Hospital based training program for improving multidisciplinary collaboration

Started 2015 in VU University Medical Center

Mandatory for all medical specialists
EFFECTIVE COLLABORATION

Sharing information dilemma
Weighing all options
DECISION MAKING
Plan
Individual competence vs Collective competence

Lingard L. Collective Competence, TEDxBayfield: https://www.youtube.com/watch?v=vl-hifp4u40
Not effective strategies

Powerplay

Avoidance

Effective strategies

Interpersonal skills

Building relationships

“Physicians show an overwhelming preference for face to face communication with individuals familiar based on personal relationships!”

Basic principles of the training

- Train the teams that work together
- Train only clinical scenarios that are relevant for those teams
- Train skills that can be used the next day
1. Case discussion
Case

Surgical patient with DM planned for operation. Diabetes therapy “collaboration” between residents surgery and internal medicine. Free space on OR list. Resident surgery forgets to stop insulin preOR. Nurse observes patient sweaty and low consciousness → severe hypoglycemia.
Residents surgery calls resident internal medicine: “solve the problem!” Resident internal medicine writes down medical file: feed patient and cancel OR.
No answer paging.
Consultants step in. Confrontation, no solution
Case

Male patient 70 yrs, History: Diabetes, ESRD, Dialysis

Hospitalised for unexplained fever. Suspected Postrenal obstruction by Kidneystones.

Course:
Daytime delay. End of the day: Consultant nefrology requests nefrostomia for threatening urosepsis. Resident calls consultant urology: advised to call radiologist. Resident calls radiologist: no indication nefrostomia, advise double J bij urologist.

Outcome:
Due to conflict and uncertainty decided to wait until next day. In the night patient gets septic and dies in ICU.
De hoofdslaapder heeft lucht nodig... daar moeten we iets aan doen!

Waar zijn de cucurbitulae?

Stelletje kwakzalver! Ik stel voor hem een mensjeel toest te dienen van Fluoroslapfor. Schildpadten en ouwenbloed. En als hij dat overleeft, dan...
Results 2015

15 trainings

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## Results 2016

### 7 trainings

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Basic principles of the training

- Train the teams that work together
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- Train skills that can be used the next day

Logistic frame

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- Training time: 4 hours
- Group: 8-12 “topic related” participants
- Minimum of 3 different specialism
Theoretical models for training design

- Kolb’s learning cycle
- Crew resource management principles
Crew Resource Management

‘A management system which makes optimum use of all available human factors and other resources to promote safety and enhance efficiency’.

A combination is needed of
• Specific technical skills
• General non-technical skills:
   Decision making,
   Communication,
   Leadership,
   Situational awareness
The program
Patient-centered team situations

• **Acute situations**: simulation training

• **Complex situations**: communication training in complex multidisciplinary situations

• **Regular situations**: multidisciplinary and interprofessional patient conference training
TeAMS – acute situations: (Simulation) Teamtrainingen

- Resuscitation
- Trauma
- Intensive Care
- Obstetrics / Pediatrics
- Pediatric resuscitation
- OR
Train the situations relevant for the team
Resuscitation on a ward

Train the teams that work together!
TeAMS - Complex situation

Organisational factors

Technical factors

Complex patient

Suboptimal communication and coordination

Loss of time and energy

Frustration

Loss of quality

Complications
Cool Blue
- cautious
- precise
- deliberate
- questioning
- formal

Fiery Red
- competitive
- demanding
- determined
- strong-willed
- purposeful

Earth Green
- caring
- encouraging
- sharing
- patient
- relaxed

Sunshine Yellow
- sociable
- dynamic
- demonstrative
- enthusiastic
- persuasive
TeAMS regular situation

Multidisciplinary meetings

Daily practice

Analysis and reflection

New knowledge

Adjustment and implementation

bron: jmir.org/themes/159
The MDM neuro-oncology room
Adjustment of communication
Goals 2015

- Average levels of satisfaction of participants >7.5 on a 10 point scale
- Train at least 80% of the medical specialist in the hospital
- Investigate logistic elements in installing a hospital broad program

- 25 Acute situation trainings
- 20 Complex situation trainings
- 25 Regular situation trainings
And…. What about outcome?
“If you deliver training for your team, then you know how important it is to measure its effectiveness. After all, you don't want to spend time or money on training that doesn't provide a good return.”

Prof. Donald Kirkpatrick
(1924 – 2014)
Evaluation of quality and efficacy

Results 2015 F&F

- 19 SIM training sessions
- 15 Complex situation training sessions
- 7 MDM-training sessions
  (60% of goal)
- 37 different medical specialism
- 6 different health-care professions
## Results 2015 F&F

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Results 2015 evaluation
70% respons

rating of training by participants, overall

Mean rating: 8.1
Results 2015 evaluation
new knowledge

SIM

CST

MDM
Results 2015 evaluation
recommendation to others

No
Yes
Conclusion

Improving integrated care by team training of all health workers in an academic center is possible.

Logistics and finance are challenging.

Patient centered, clinical scenario team training is highly appreciated. New knowledge is acquired and will be used. 98% will recommend it to a colleague.
VUmc in numbers:

- 293,520 out-patient contacts
- 29,738 day treatment
- 23,488 admissions
- 515 medical specialists
- 7,138 employees
- € 710 milj turnover