

## **Using complexity science to frame inter-professional communication**

### **Authors:**

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### **Background:**

Good communication is a prerequisite for good teamwork. As such 'communication' is one of the most assessed dimensions in teamwork survey instruments. Unclear communication and misunderstanding are main reasons for team conflicts. It is however difficult to define 'good' and 'bad' communication with reference to inter-professional communication.

Health care literature suggests complexity science as a new way of looking at healthcare teams. Features of healthcare teams as complex adaptive systems (CAS) are: team members act autonomously guided by internalised basic rules; team members' interactions are non-linear; a team has a history and its functioning is sensitive to initial conditions; interactions between team members can produce unpredictable behaviour; interactions between team members can generate new behaviour; a team is an open system which interacts and is influenced by its environment; attractors shape the team functioning. Describing inter-professional communication according to the principles of complexity science might provide a framework for better understanding 'good' and 'bad' communication.

This study was conducted in primary healthcare teams in palliative care. The aim of the study was to describe team-communication according to the principles of CAS.

### **Methods:**

Semi-structured interviews with general practitioners (n=21), community nurses (n=20) and palliative home care nurses (n=21).

### **Findings:**

Participants from all three professional groups describe CAS-features. Communication strategies are linked to internalized basic rules (sense of professional identity), non-linearity (small error can lead to major conflict), sensitivity to initial conditions (previous collaborative experiences), unpredictable behaviour (task refusal), generation of new behaviour (workplace learning), influence of environment (input from external professionals), attractors (team driving forces).

### **Discussion/implications:**

Looking through the lens of complexity science offers a new way of understanding inter-professional communication. Analysis reveals points of interest to enhance communication effectiveness: Expressing personal care views and negotiating shared care goals at the beginning of the collaboration prevents misunderstandings; Clinical incident analysis prevents escalation of conflicts after errors; Negotiating task assignment according to competences and preferences prevents malpractice and leads to acquisition of shared competences.

Using complexity science to frame inter-professional communication may shape training and education of healthcare teams.