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## ABSTRACT

**Background:** The use of different forms of coordination according to situational demands plays a crucial role in teams working in complex environments. This study aimed to describe patterns of coordinative actions (CAs) as they occur during anaesthesia induction and to analyse the influence of two crucial situational factors on these patterns, namely the amount of existing standards and the level of task load.

**Methods:** 23 anaesthesia inductions were videotaped, and CAs of the anaesthesia teams were coded. The coding system distinguished between implicit and explicit coordination, coordination via leadership and heedful interrelating as the individual effort to reach smooth coordination. Five phases within anaesthesia inductions were determined according to their level of standardisation and task load.

**Results:** Overall, 67.7% of all CAs were rated as explicit CA and 32.3% as implicit CAs. When we considered the duration of those CAs, we found the reverse tendency (coordination was explicit 40% of the time and implicit 60% of the time). In highly standardised phases, we observed less explicit coordination, less leadership behaviour and less heedful interrelating compared with less standardised phases. In high-task-load phases, we observed more heedful interrelating than in low-task-load phases.

**Conclusions:** The anaesthesia teams relied greatly on implicit coordination, which contrasts with findings indicating a performance benefit through explicit coordination in other work settings. Standardisation in the form of written departmental directives may have a supportive effect on coordination by partially substituting for other forms of coordination. The effect of high task load should be tested further in a simulator setting, where high task load can be induced in a more controlled fashion.

Close cooperation between providers in anaesthesia teams is crucial, because some anaesthetic procedures can be technically demanding (eg, tracheal intubation), and unexpected events are relatively frequent.[1 2]

The induction and recovery period are often particularly challenging, because the intended smooth transition between alertness and a deeply anaesthetised state of the patient can on occasion[1 2] be jeopardised by events such as unforeseen patient reactions to medication, unanticipated difficulty with airway management and other events of varying significance. Even though coordination strategies within teams and team adaptation to the situation are intuitively felt to be pivotal for successful coping, little is known about the relevance of such coordinative strategies in anaesthesia teams.

We analysed different types of coordination strategies, consisting of either verbal communications or silent actions.

The concept of *explicit/implicit coordination*[3 4] is used to describe coordination behaviour in relation to the effort spent on the coordination activity itself. *Explicit coordination* (see table 1) concerns the deliberate effort aimed at managing the task through overt communication. It has been found that explicit coordination is especially appropriate in novel situations and during decision-making. During *implicit coordination* (see table 1) less effort is spent on overt communication, for example, by providing somebody with relevant information at the right time without the other person having to ask for that information. For instance, a team member exposed to a high task load can be relieved from the coordination activity, thereby having more cognitive capacity to carry out the task itself. Implicit coordination requires, however, mental models shared by all team members.[5]

In high-risk work environments, standardisation (see table 1) is often used to support coordinated action.[6 7] Standards can support implicit coordination because they enhance the shared understanding of the task. However, the emerging need for explicit coordination in non-routine situations may be missed if teams rely excessively on standards.[8–11]

Grote *et al* investigated the effects of standardisation and explicit/implicit coordination on the performance of cockpit crews during simulator training.[12 13] In highly standardised work phases and in work phases with a high task load, there was significantly less explicit coordination compared with work phases with a low standardisation or low task load, respectively. However, the better-performing teams used more explicit coordination overall.

*Leadership* is also central in team coordination.[14] Zala-Mezö *et al* found in an interview study[15] that anaesthesia team members expected to be allowed high levels of autonomy in routine situations. During emergency situations, however, active and even directive leadership was expected. Yun *et al* observed similar tendencies in emergency medical teams.[16] Previous studies in cockpit teams have shown that high-task-load phases should be prepared during low-task-load phases by explicit coordination and active leadership, while during the high-task-load phase, explicit coordination should be reduced.[9] The use of leadership and standardisation as coordination mechanisms seems

**Table 1** Definitions of the most important terms

| Term | Definition |
|---|---|
| Coordination | Effective management of dependencies among subtasks, resources and people.[17] |
| Coordinative action | Smallest unit of coordination, such as a verbal or non-verbal communication or silent action. It has an identifiable purpose and lasts until a new theme belonging to another category occurs. |
| Task load | An external indicator of objective degree of task difficulty, including factors like task demands or situational requirements.[18] |
| Explicit coordination | Team member A uses open verbal or non-verbal communication to exchange information with other team members, to clarify the situation and coordinate actions.[19] |
| Implicit coordination | Team member A anticipates the information and resources needed by B and uses verbal communication or silent action to provide the information or help without being asked to do so.[19] |
| Leadership | Team member A takes the lead by making plans, assigning tasks or instructing B as the need arises and is not met by others.[20] The focus is on leadership activity exercised by any team member, and not necessarily by the formal leader. |
| Heedful interrelating | Team member A works to help the team achieve good performance by carefully following the actions of other team members and continuously adjusting her own behaviour to theirs in tasks. She is alert to any timely, personal or medical consequences of actions taken.[21] |
| Standardisation | Impersonal form of coordination where team members' activities follow predetermined rules and guidelines.[6] |

to be reciprocal. In Grote and Zala-Mezö's study,[22] work phases with high levels of standardisation were characterised by significantly less leadership behaviour. These results were in accordance with earlier research findings suggesting that standardisation served as a substitute for leadership.[7]

The concept of *heedful interrelating* (see table 1) describes individuals' efforts to attain a good team performance based on an attitude that entails carefully following the course of action in the team and continuously matching one's own behaviour to the behaviour of other team members. Also, the deliberate embedding of actions in a broader physical and social context is an indication of heedful action.[21]

To date, there are few studies that have investigated the relationships between these different coordination types in medical teams.[16 23 24] The present study aimed to investigate these based on two hypotheses.

Written directives can be understood as knowledge shared by the team. In this sense every team member knows what he or she has to do. Any explicit coordination in the form of clarifying, planning or leading the situation is unnecessary. It is sufficient to occasionally follow the work processes of the other team members to check if everything is working out.

### Hypothesis 1

In *highly standardised* work phases, we expected more implicit coordination, less leadership and less heedful interrelating compared with low standardisation phases.

If a team member has a delicate task, like inducting the tube into the trachea, they have less capacity to listen and to talk, since they are absorbed by the task. The person is experiencing a high task load. In such a situation, implicit coordination can be undertaken by another, less busy, team member by silently giving them a hand.

### Hypothesis 2

In *high-task-load situations*, we expected more implicit coordination, less leadership and *more* heedful interrelating compared with low-task-load phases.

Studying these hypotheses also helps to answer the following very practical questions:

- Which coordination form is the most appropriate in a given situation?
- Which particular shifts in coordination forms are required as changes in situational demands occur?

The answers to these questions can also guide the development of specific team training content for medical personnel.

## METHODS

Anaesthesia inductions were analysed because they offer the opportunity to study coordination within anaesthesia teams without much interference from other teams. Cases were considered eligible if a general anaesthetic without invasive monitoring lines was planned (inductions with tracheal intubations). Informed consent of the patient and staff was obtained, and 23 anaesthesia teams were videotaped. The composition of the teams is described in table A1.

Taping was started when the patient was brought to the induction room and stopped at the time of transfer to the adjacent OR. A Panasonic NV-DS27 camera attached to a mobile stand was placed so as to obtain an overall view of the anaesthesia team. An external microphone was mounted close to the team to enhance the acoustic recording quality. The videotapes were analysed using the software ATLASti,[25] which facilitates the analysis of large quantities of video data.

An experienced and human-factors-trained anaesthetist defined five main phases of anaesthesia induction and assessed the level of task load for each work phase. Work phases were classified as low, moderate and high standardisation phases according to the number of written rules[26] pertaining to the respective phase. The rules analysis was carried out for four departmental directives relevant to anaesthesia induction: standard anaesthesia, residents' duties; shift organisation; and anaesthesia protocols (see table 2).

The coding scheme for CAs included four main types of coordination (implicit, explicit, leadership, heedful interrelating; see tables 1, A2) with overall 27 subcategories derived as appropriate from existing behavioural marker systems line operation safety audit (LOSA)[27] and non-technical skills (NOTECHS)[28] and from descriptions in the literature of explicit/implicit coordination,[4] task-oriented leadership[29] and heedful interrelating.[5] The categories of explicit and implicit coordination were mutually exclusive and were applied to all task-relevant utterances. The categories related to leadership and heedful interrelating were coded additionally only for selected utterances according to the definitions of these categories. Almost all leadership subcategories referred to CAs which were also coded as explicit coordination, while heedful interrelating CAs concerned both implicit and explicit

**Table 2** Written rules concerning different phases of anaesthesia induction

| | | Induction phase | | | | |
|---|---|---|---|---|---|---|
| | Sum of rules | 1 Preparation | 2 Preintubation | 3 Intubation | 4 Additional preparation | 5 Transport to OR |
| No of rules | 47 | 21 | 10 | 10 | 6 | 0 |
| Level of standardisation | – | High | Moderate | Moderate | Low | Low |

coordination. The inter-rater reliability (two independent raters: two of the authors of this article) of coding was 84% in a test sample of eight cases out of the 23. Differences in coding were discussed, and codes were reassigned based on the agreements reached.

To test differences in the occurrence of the different coordination forms between work phases, we used the non-parametric Pearson chi square test (SPSS, Chicago). In our analyses, we focused on frequencies of use of different coordination forms across the 23 teams because we were interested in adaptiveness regarding use as such, not in temporal use patterns.

## RESULTS

Table 3 shows the frequencies of types of CAs across the five work phases. Overall, 67.7% of the CAs were explicit, and 32.3% were implicit. Leadership and heedful interrelating occurred rarely, with a mean across the five work phases of 14.6% and 9.3%, respectively. There were several differences in frequencies between teams (implicit/explicit CAs: SD 6.1; leadership CAs: SD 5.5; heedful interrelating CAs: SD 4.4).

The mean duration of a CA was 7.8 s. Implicit CAs tended to take longer, as 60% of the time overall was spent on implicit and 40% on explicit coordination (see appendix A).

The relationship between coordination forms and level of standardisation was tested by comparing CA frequencies in phase 1 (low task load and high standardisation) and 5 (low task load and low standardisation) because these two phases differed considerably in standardisation and had the same task load level. In accordance with hypothesis 1, there was a higher share of implicit coordination and less leadership and heedful interrelating in phase 1. These results were statistically significant (Pearson chi-square test values of 17.05, 43.05 and 32.62, respectively, $p<0.001$ in all three tests).

To test the relationship between coordination pattern and task load, we compared phases 2 (moderate standardisation and moderate task load) and 3 (moderate standardisation and high task load). They had the same level of standardisation but varied regarding the level of task load. We found significant differences only in the category heedful interrelating in accordance with hypothesis 2: more heedful interrelating was observed in phase 3 (Pearson chi-square test value: 5.02, $p<0.01$). Differences concerning explicit coordination and leadership were non-significant.

## DISCUSSION

Our video-based analysis found that anaesthesia teams coordinated implicitly during 60% of the time during routine inductions. Explicit coordination (40% of the time) however was characterised by a higher density of coordinative actions (CAs), with explicit CAs representing 67.7% of all CAs. In highly standardised phases, we observed lower frequencies of explicit coordination, leadership behaviour, and heedful interrelating compared with less standardised phases. These findings support our first hypothesis, suggesting that standardisation may ease implicit coordination and may serve as a substitute for leadership, as has already been shown in other work domains.[12]

In high-task-load phases, we observed more heedful interrelating than in low-task-load phases and so found less evidence to maintain our second hypothesis (more implicit coordination and heedful interrelating but less leadership in high-task-load situations). This could be due to only moderate observed differences in task load in our study setting. Hence, this issue could be better addressed in a simulator setting allowing artificial creation of high-task-load situations.

Methodologically, we demonstrated the feasibility of recording data in a live clinical setting, using mostly basic, easily accessible equipment, and developed a theory-based, reliable rating system for coordination behaviours useful also for future analyses of team coordination.

The association of work phases involving higher standardisation with more use of implicit coordination, less leadership and less heedful interrelating has been reported in other work domains. However, we are not aware of any comparable reports referring to the specific setting of anaesthesia. Given the overall rather low level of standardisation in anaesthesia in comparison with other high-risk work environments, the generally high level of implicit coordination in our results was unexpected. It may be related to the immediacy of common action in a shared visual field in anaesthesia, and to a comparatively high degree of

**Table 3** Coordination patterns during different work phases in 23 anaesthesia inductions

| | | Induction phase | | | | |
|---|---|---|---|---|---|---|
| | Overall | 1 Preparation | 2 Preintubation | 3 Intubation | 4 Additional preparation | 5 Transport |
| Task load | – | Low | Moderate | High | High | Low |
| Standardisation | – | High | Moderate | Moderate | Low | Low |
| Frequencies of CAs | 6234 | 1561 | 1605 | 916 | 1780 | 372 |
| CA explicit (%) | 67.7 | 59 | 69 | 71 | 74 | 70 |
| CA implicit (%) | 32.3 | 41 | 31 | 29 | 26 | 30 |
| CA leadership (%) | 14.6 | 10 | 15 | 17 | 17 | 22 |
| CA heedful interrelating (%) | 9.3 | 6 | 9 | 12 | 10 | 15 |

CA, coordinative action.

familiarity in anaesthesia teams, which may compensate for the lack of common ground through standardisation.[30]

This study is limited by its observational design allowing only the detection of associations and not of underlying causality. An established system for observational categories is also missing. A less detailed categorisation would allow a more economical way of analysing this kind of behavioural data. In addition, our document analysis may have missed elements of standardisation of other origins, like action standards acquired by team members during their medical training, continuing education and independent study of literature.

In summary, our results show a high occurrence of implicit team coordination during anaesthesia inductions and indicate that less leadership and heedful interrelating was used in highly standardised work phases. It can be speculated that in the setting of routine anaesthesia inductions, standardisation may be an economical way to facilitate workflow by substituting for leadership and heedful interrelating in certain phases. Considering written rules as part of the shared knowledge about the hazards connected to work procedures has important safety implications for medical practice. However, standards should be chosen carefully so as not to reduce the degree of freedom for adaptive action in these highly uncertain working environments. Further research is needed to establish the presumed relationships using an interventional, controlled design and to define reliable measures for team performance to relate coordination patterns with relevant, preferably patient- and safety-related outcomes. If future research results in defining a relationship between coordination patterns and relevant outcomes, implications for a variety of fields can be derived. These range from better founded principles for team training or focused training of standard procedures in anaesthesia to leadership directives dealing with the shift from implicit to explicit coordination during unexpected events.

**Competing interests:** None.

**Ethics approval:** Ethics approval was provided by the ethic commission of the University Hospital of Zurich.

**Patient consent:** Obtained.

## REFERENCES

1. **Weinger MB,** Slagle J. Human factors research in anesthesia patient safety. *Proceedings of the AMIA Symposium,* 2001:756–60.
2. **Weinger M,** Slagle J, Jain S, *et al*. Retrospective data collection and analytical techniques for patient safety studies. *J Biomed Inform* 2003;**36**:106–19.
3. **Macmillan J,** Entin EE, Serfaty D. Communication overhead: The hidden cost of team cognititon. In: Salas E, Fiore SM, eds. *Team cognition. Understanding the factors that drive process and performance*. Washington: American Psychological Association, 2004:61–82.
4. **Serfaty D,** Entin EE, Johnston JH. Team coordination training. In: Cannon-Bowers JA, Salas E, eds. *Making decision under stress*. Washington: American Psychological Association, 1998:221–45.
5. **Mathieu JE,** Heffner TS, Goodwin GF, *et al*. The influence of shared mental models on team process and performance. *J Appl Psychol* 2000;**85**:273–83.
6. **Van de Ven AH,** Delbecq AL, Koenig R. Determinants of coordination modes within organizations. *Am Sociol Rev* 1976;**41**:322–38.
7. **Kerr S,** Jermier JM. Substitutes for leadership: their meaning and measurement. *Org Behav Hum Perf* 1978;**22**:375–403.
8. **Entin EE,** Serfaty D. Adaptive team coordination. *Hum Factors* 1999;**41**:312–25.
9. **Orasanu JM.** Decision-making in the cockpit. In: Wiener EL, Kanki B, Helmreich RL, eds. *Cockpit resource management*. San Diego: Academic Press, 1993:137–72.
10. **Stout R,** Salas E. The role of planning in coordinated team decision making; Implications for training. *Proceedings of the Human Factors and Ergonomics Society 37th Annual Meeting,* 1993:1238–42.
11. **Xiao Y,** LOTAS G. Understanding coordination in a dynamic medical environment: methods and results. In: McNeese ME, Salas S, Endsley M, eds. *Trends in collaborative activities: understanding system dynamics in complex environments*. Santa Monica, CA: Human Factors and Ergonomics Society, 2001:242–58.
12. **Grote G,** Zala-Mezö E, Grommes P. Effects of standardization on coordination and communication in high workload situations. *Linguistische Berichte, Sonderheft* 2003;**12**:127–55.
13. **Grote G,** Zala-Mezö E, Grommes P. The effects of different forms of co-ordination on coping with workload. In: Dietrich R, Childress TM, eds. *Group interaction in high risk environments*. Aldershot: Ashgate, 2004:39–55.
14. **Sundstrom E,** De Meuse KP, Futrell D. Work teams. Applications and effectiveness. *Am Psychol* 1990;**45**:120–33.
15. **Zala-Mezö E,** Künzle B, Wacker J, *et al*. Zusammenarbeit in Anästhesieteams aus Sicht der Teammitglieder. *Zeitschrift für Arbeitswissenschaft; Themenheft: Arbeitswissenschaft im Krankenhaus* 2004;**58**:199–208.
16. **Yun S,** Faray S, Xiao Y, *et al*. Team leadership and coordination in trauma resuscitation. In: Beyerlein MM, Johnson DA, Beyerlein ST, eds. *Team-based organizing*. Amsterdam: JAI, 2003.
17. **Espinosa AJ,** Lerch JF, Kraut RE. Explicit versus implicit coordination mechanisms and task dependencies: one size does not fit all. In: Salas E, Fiore SM, eds. *Team cognition. Understanding the factors that drive process and performance*. Washington: American Psychological Association, 2004:107–29.
18. **Grote G,** Helmreich RL, Sträter O, *et al*. Setting the stage: characteristics of organizations, teams and tasks influencing team processes. In: Dietrich R, Childress TM, eds. *Group interaction in high risk environments*. Aldershot: Ashgate, 2004:111–41.
19. **Serfaty D,** Entin EE, Volpe C. Adaptation to stress in team decision-making and coordination. In *Human Factors and Ergonomics Society 37th Annual Meeting*, 1993:1228–32.
20. **Zaccaro SJ,** Rittman AL, Marks MA. Team leadership. *Leadership Q* 2001;**12**:451–83.
21. **Weick KE,** Roberts KH. Collective mind in organizations Heedful interrelating on flight decks. *Adm Sci Q* 1993;**38**:357–81.
22. **Grote G,** Zala-Mezö E. The effects of different forms of coordination in coping with work load: Cockpit versus operating theatre, 2004.
23. **Xiao Y,** Moss J, Mackenzie CF, *et al*. Transactive responsibility systems and high reliability teams: A tentative formulation. *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting,* 2002:1428–32.
24. **Xiao J,** Moss J, Mackenzie CF, *et al*. Team communication patterns as measures of team processes: exploring the effects of task urgency and shared team experience. *Proceedings of the Human Factors and Ergonomics Society 47th Annual Meeting,* 2003:1502–6.
25. **Muhr T.** ATLAS.ti Scientific Software Development [program]. 5.0 version. Berlin: Scientific Software Development, 1997.
26. **Hale AR,** Swuste P. Safety rules: procedural freedom or action constraint? *Saf Sci* 1998;**29**:163–77.
27. **Klinect JR,** Wilhelm JA, Helmreich RL. Threat and error management: Data from line operation safety audit. *Tenth International Symposium on Aviation Psychology*. Columbus: The Ohio State University, 1999:683–8.
28. **Avermate van J,** Kruijsen E. NOTECHS The evaluation of non-technical skills of multipilot aircrew in relation to the JAR-FCL requirements. *Final report* 1998.
29. **Yukl G.** Perspectives on effective leadership behavior. In: *Leadership in organizations*. 5th edn. Upper Saddle River: Prentice-Hall, 2002:49–80.
30. **Hindmarsh J,** Pilnick A. The tacit order of teamwork: collaboration and embodied conduct in anesthesia. *Sociol Q* 2002;**43**:139–64.

**Table A1** Composition of teams studied

| | |
|---|---|
| Teams with two persons: resident; nurse anaesthetist | 3 |
| Teams with three persons: staff anaesthetist; resident; nurse anaesthetist | 10 |
| Teams with three persons: staff anaesthetist; resident; medical student | 1 |
| Teams with three persons: resident; medical student; nurse anaesthetist | 1 |
| Teams with three persons: resident; nurse anaesthetist; nurse in training | 2 |
| Teams with three persons: staff anaesthetist; medical student; nurse anaesthetist | 1 |
| Teams with three persons: staff anaesthetist; nurse anaesthetist; nurse in training | 1 |
| Teams with three persons: two residents; nurse anaesthetist | 1 |
| Teams with four persons: staff anaesthetist; resident; nurse anaesthetist; nurse in training | 1 |
| Teams with four persons: two residents; medical student; nurse anaesthetist | 1 |
| Teams with four persons: staff anaesthetist; medical student; two nurse anaesthetists | 1 |
| All teams together | 23 |

**Table A2** Examples for subcategories and their operationalisation

| Category | Explanation | Example |
|---|---|---|
| Explicit coordination | | |
| Provide information | Team member A provides information unasked. (All routine information transfer that is not in response to a perceived need from team member B, coded here. See also "Provide unsolicited information," below.) | I can ventilate the patient nicely. |
| Request information | Team member A asks a question. | Is it the smallest tube we have? |
| Provide information on request | Team member B answers a question. | Yes, it is the smallest. |
| Implicit coordination | | |
| Provide unsolicited information | A anticipates that B needs a particular piece of information and provides it without being asked to do so. | I would adjust the frequency first, because it alters the volume. (This was advice given by an experienced team member, as someone else was trying to adjust the respirator and it did not work out.) |
| Offer help | A anticipates B's need for help and offers this help. | May I give you the breathing bag? |
| Provide unsolicited help | A anticipates an action being required for a smooth work process performed by B and takes this action without being asked to do so. | Handing the waste box for a used needle. |
| Leadership | | |
| Make plans | Team member A creates a plan which includes several steps of the future work process. | As soon as they are ready with the preparation we will wheel the patient to the operating theatre. |
| Assign task | A allocates tasks among the team. | If you agree I will administer the drugs. |
| Instruct | A gives a simple instruction to carry out actions. | Can you give me the ECG cable? |
| Heedful interrelating | | |
| Considering others | A considers or checks B's opinion or feelings about the task. | Can you do it alone? or: Do you agree? |
| Considering the future | Team member A thinks about the consequences of the situation in a timely fashion. | We are going to reposition the patient in the operating room, that is better. |
| Considering external conditions | A considers external conditions influencing task fulfilment. | If the table is up too much you can hardly lift the patient. |

**Table A3** Duration of explicit and implicit coordination during different work phases in 23 anaesthesia inductions

| | | Induction phase | | | | |
|---|---|---|---|---|---|---|
| | Overall | 1 Preparation | 2 Preintubation | 3 Intubation | 4 Additional preparation | 5 Transport |
| Duration of CAs | 573 (min) | 165 (min) | 140 (min) | 70 (min) | 168 (min) | 30 (min) |
| CA explicit (%) | 40 | 29 | 42 | 44 | 47 | 37 |
| CA implicit (%) | 60 | 71 | 58 | 56 | 53 | 63 |

CA, coordinative action.