Exploring Interpersonal Communication in Hospice
Interdisciplinary Team Meetings

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Abstract

In health care teams, lack of collaboration or inability to collaborate undermines the goal of providing holistic and comprehensive geriatric care. This study examines relational communication control used by hospice interdisciplinary team members in their attempt to share information and contribute to decision making in team meetings. Eighty-one hospice team discussions were coded for message control types. Analysis of the data found that the nurse’s role as primary reporter implicitly created a struggle for relational control among other team members within the meeting. This study concluded that a majority of interpersonal communication in the team meetings was aimed at gaining control of the information exchange. Future attention should be given to organizational policy aimed at shaping the structure of team meetings.

In 2006, the American Geriatrics Society (AGS) issued a position statement supporting interdisciplinary care, arguing that it improves health care processes, benefits the health care system and caregivers, and adequately prepares health care providers for better care of older adults (Geriatrics Interdisciplinary Advisory Group, AGS, 2006). Federal law requires hospice agencies to provide interdisciplinary patient care by stipulating that each agency team consist of a medical director, nurse, social worker, and chaplain. However, hospice interdisciplinary teams (IDTs) commonly exceed these requirements and include experts in pharmacy, nutrition, physical therapy, and bereavement care. Although hospice agencies typically conduct team meetings once per week to facilitate interdisciplinary collaboration, these meetings can last 1 to 2 hours and consist of 10 to 20 team members (Wittenberg-Lyles, Parker Oliver, Demiris, & Courtney, 2007). The quality of discussion and information sharing in IDT meetings are an important variable in the clinical responsibilities of hospice staff, especially nurse case managers who typically provide the primary reports in these meetings, as these interactions may have an impact on the decision making and plan of care for the hospice patient and family.

Common problems in IDT meetings include interpersonal conflicts and “turfdom” wherein team members become protective of their discipline and their contributions based on their expertise (Larson, 2003). For example, the competition existing between the nurses and social workers on IDTs has existed for many years (Reese & Sontag, 2001). Although open communication is a predictor of the level of health care providers’ understanding of patient
care goals, a variety of communication differences exist among team members (Mills, Neily, & Dunn, 2008; Reader, Flin, Mearns, & Cuthbertson, 2007). An investigation of hospice social workers’ experiences on the IDT found that challenges to collaboration included personality and team conflicts (Parker Oliver & Peck, 2006). A lack of understanding across disciplines can be contributed to role competition, role confusion, and role definition, which can lead to friction within the team and isolation of members, and can impede interdisciplinary collaboration and the development of holistic plans of care (Connor, Egan, Kwilosz, Larson, & Reese, 2002).

Recent research on information-sharing practices in IDT meetings revealed that tensions between team members can result from a primary emphasis on biomedical information sharing (Wittenberg-Lyles, 2005). Overall, an ineffective IDT meeting can leave team members feeling incompetent, less important when compared with other team members, and in a degrading role within the IDT care process (Sabur, 2003). Still, the IDT meeting can also be considered a venue for solidifying and building relationships and partnerships across disciplines. Overall, hospice IDT meetings contain layers of relational dynamics between team members. This study sought to investigate interpersonal communication between team members by exploring the kinds of relational control messages used among hospice IDT members during meetings.

THEORETICAL BACKGROUND

Relational control is an interaction that establishes the right to define, direct, and delimit actions (Rogers & Farace, 1975). It is a function of interpersonal communication that emerges over time (Ellis, 1979). Interactions consist of three dimensions, namely redundancy, dominance, and power. Redundancy is illustrated by patterns of regular effort aimed at obtaining control. Dominance reflects the complementary exchange of messages, and power is the perception that the other has the ability to influence. The goal of relational control research is to examine messages that attempt to direct relationship definitions (Ellis, 1979). The concepts of relational control have been formally operationalized into a coding scheme that assesses the pragmatic function of each person’s message in relation to the previous message (Heatherington & Friedlander, 1987).

In hospice agencies, interdisciplinary group members share in-group membership (the IDT) and an outgroup membership (occupational group). Consequently, various group members must work with double in-group members (IDT/same occupational group) and partial in-group members (IDT/different occupational group). Prior research on information sharing in varying group formats found that team members reported receiving less information from partial in-group members, and communication received from partial in-group members was rated as less effective (Grice, Gallois, Jones, Paulsen, & Callan, 2006). In addition, work-team identification was associated with more positive ratings of between-occupation communication. Thus, in-group membership such as an IDT may also be influenced by other categorizations such as an occupational group. We hypothesized that the disparity between the two kinds of group memberships could be evident in interpersonal communication between team members in hospice IDT meetings.

METHOD

Participants

The participants in this study were members of hospice IDTs from one state in the midwestern United States. For the purposes of this study, four different teams were chosen based on their geographical location from one rural hospice program. The program is hospital based, accredited by The Joint Commission, Medicare certified, state licensed, and not for profit. The
average length of stay for the program is 63 days, with an average daily census of 89 (Missouri Hospice and Palliative Care Organization, 2005).

Group members were health care professionals from different backgrounds, including physicians, nurses, social workers, chaplains, bereavement counselors, and volunteer coordinators. IDT meetings were video recorded for patients who had consented to participate in a larger intervention study. Because not all hospice patients had consented to participate, the entire meeting was not recorded; video recordings consisted of the team’s discussion of the patient’s plan of care for those who had previously consented. Institutional Review Board approval was granted from the supporting university as well as the sponsoring hospice.

**Procedure**

IDT meeting discussions were video recorded by a graduate research assistant (GRA) from December 2006 to April 2007. In total, 81 patient care discussions were recorded. Video recording began once the team discussion of the patient’s case started and ended prior to discussion of nonconsenting patient cases. The recordings were transcribed, producing more than 150 pages of transcripts.

**Coding and Analysis Process**

All messages were coded using the Family Relational Communication Control Coding System (FRCCCS) (Heatherington & Friedlander, 1987). The FRCCCS uses sequential messages as the unit of analysis so that each message is coded as a three-digit code that identifies its pragmatic function in relation to the previous message. The first digit represented the speaker, which we identified by discipline. (In addition to video recording the conversation, the GRA provided a seating chart that identified all of the participants on the video by discipline.) The second digit represented the grammatical format of the message. According to the FRCCCS, these ranged from assertion, open question, successful talk-over, unsuccessful talk-over, incomplete sentence, closed question, and interruptions. The third digit represented the response mode of the message, ranging from support, non-support, extension of topic, reply to open question, instruction, an order, disconfirmation, a change in topic, and an answer to a closed question.

These three-digit codes are then assigned an overall control code. Control codes are based on combinations of format and response modes and are determined by using a control code assignment sheet provided by the authors of the FRCCCS (Heatherington & Friedlander, 1987). There are three control code types:

- **One-up:** interaction aimed at gaining control of the exchange.
- **One-down:** interaction that allows, seeks, or accepts control of the exchange.
- **One-across:** interaction that neutralizes control of the exchange.

Before coding commenced, transcripts were first prepared for coding. This process consisted of watching the videotapes and marking transcripts so direct and indirect targets were indicated. Direct targets consisted of either explicit verbal communication, such as the person’s name, as well as nonverbal communication, such as eye contact with the person the speaker was addressing. Indirect target messages were those that included mention of the person’s name. Transcripts were then coded independently by two GRAs, resulting in 80% and 85% agreement, which was established by practicing with several transcripts from the study.
RESULTS

Eighty-one team discussions were used in this study, containing a total of 1,917 messages. Every team meeting analyzed began with a primary report from the nurse. The analysis revealed that nurses produced a total of 1,089 messages (56.8%), followed by social workers (14.8%) and medical directors (14.1%). The difference in messages between team members came from the nurse’s role as reporter; that is, the nurse traditionally begins each case report in team meetings (Wittenberg-Lyles, 2005). Table 1 displays the frequency of each of the three kinds of message control for all IDT members.

One-Up Messages

The findings reported in Table 1 indicate that the most frequent kind of message control was one-up, messages aimed at gaining control of the exchange, which accounted for 40% of all messages sent. The FRCCCS uses a combination of the message format and response mode to determine message control types as well as incorporates nonverbal communication related to responses. For example, an assertion, a message format defined as any statement expressed in declarative or imperative form, that is met with a response message that changes the topic is coded as a one-up message control type (Heatherington & Friedlander, 1987). The following is an example demonstrating the coding system and a one-up message pattern from a team meeting in which the nurse and social work student struggle to gain control of the exchange:

Nurse: Pain is controlled. She seems, uh, I can’t read her. She stays in bed a lot of the time… [The nurse is beginning the discussion of the patient’s care plan with a formal report.]

Social work student: (interrupting) She said she wanted to get out more. [Interruption, extension of topic, one-up message] She’s in that house all the time, and nobody gets her out so we got her some …

Nurse: (interrupting) I asked her about that. [Interruption, extension of topic, one-up message] There’s no air conditioning and I said, “Won’t you be hot in the summer?” And she said, “Oh, it’s not bad. When we moved here we used to have an air conditioner, but it’s been broken.” I can’t imagine how she can breathe in that trailer without an air conditioner.

Social work student: She’s still smoking. [Assertion, change of topic, one-up message]

Nurse: I haven’t seen her smoking in a long time. [Assertion, extension of topic]

Social work student: Yeah, she’s still, she smoked when I was there last time. [Assertion, extension of topic] Last week. Still smoking. She’s, she, for the situation, I mean, her spirits are good and she’s not in any pain.

Using the coding system, each pair of interactions (in this case, each pair is the nurse-social work student) was coded; this excerpt contains three one-up messages. First, the social work student responds to the opening report about pain by changing the topic to the patient’s social issues. Second, although maintaining the topic of discussion, the nurse responds by interrupting the social work student. Finally, the student is able to directly change the topic of discussion despite the fact that the nurse had not completed her opening report. Although the social work student is not part of routine team communication in this IDT meeting, this excerpt provides a clear example of a relational exchange in which the struggle for control is present. In this case, control appears to be emerging from the dichotomy between permanent staff member (trainer) and student (trainee) as well as from an interruption in the formal report that is considered routine for this team. Embedded within this exchange is the student’s lack of
knowledge about the normative information-sharing practice of this team, and thus relational control emerges from a deviation in the normative information-sharing practices.

One-Across Messages

One-across messages almost equaled one-up message interactions, accounting for 39.7%. One-across messages neutralize control of the exchange and are characterized by assertion messages that are extended, defined as message responses that continue the flow or theme (not always the precise topic) of the preceding message (Heatherington & Friedlander, 1987). The following is an example of a one-across message interaction between a social worker and nurse wherein control of the exchange is neutralized:

Nurse: There’s been some changes in his pain medication, he’s to the point that these transfusions are not going anywhere and even the patient said that …[inaudible] pain meds are really big. [The nurse begins the discussion of the patient’s care plan with a formal report.]

Social worker: (to nurse) He’s still active, I mean he’s still going out and doing stuff … [Assertion, extension of topic, one-across message]

Nurse: Have you seen him walk? He shuffles … [Closed question, extension of topic, one-across message]

Social worker: I know [Assertion, extension of topic, one-across message]

As the nurse provides a patient report, the social worker responds by extending the report with talk about the patient’s activity level. The nurse responds by addressing her comment and continues her report. In this exchange, the social worker neutralizes control by simply adding to the nurse’s report.

One-Down Messages

Less than a third of all messages sent were one-down message control types (20.2%). One-down messages include interaction that allows, seeks, or accepts control of the exchange and are typically characterized by message responses to open- and closed-ended questions. These interactions occurred primarily to facilitate discussion and also to ensure adequate record keeping, as in the following example:

Nurse: OK, I just got a chart, I have [name of patient]…. She has COPD, [physician’s name], born in 1967, she’s in good pain control and she does not like to take pain medicine. And she has been complaining of cold systems, with clear sinus drainage, so there is an order pending for a decongestant for her. And also we’re going to plan to discuss a possible care plan with the patient and her husband. Do we have any other input on her? Caregiver duty is an aide, and the daughter apparently reported that she had been having difficulty swallowing, but that is apparently a new complaint. [The nurse begins the discussion of the patient’s care plan with a formal report.]

Medical director: Does she have [diagnosis]? [Closed question, support]

Social worker: Not yet. [Assertion, support, one-down message]

Nurse: Not yet, no. So that’s it, that’s all I had on [name of patient]. [Assertion, support] [End of nurse’s formal report]

Social worker: Oh no, no one has been writing. [Assertion, extension of topic]

Nurse: Can she write? [Closed question, support, one-down message]

Social work intern: Can I write? [Closed question, support, one-down message]
Social worker: Yeah. [Assertion, support]

The medical director’s closed-ended question is answered by the social worker, thus signifying a one-down message control. Later, the social work intern and nurse both ask closed-ended questions (referencing note taking in the patient’s chart), which is answered by the social worker. Both of these interactions exemplify the one-down message control type, as control of the exchange is allowed by the respondents. In this excerpt the role of the social work intern is limited to accepting control of the exchange, and her question is merely an echo of a team member who has a more prominent role in everyday team communication.

Finally, Table 2 reports the frequencies of indirect message control types sent and received by IDT members. Indirect messages were predominantly sent by nurses (49.1%), followed by medical directors (16.4%) and chaplains (15.2%). Nurses were the most common target of indirect messages (36.3%). Analysis of message control types revealed that chaplains and other team members received only one-up messages from others. In addition, social workers were the only team members to receive one-down and one-across messages from the medical director; all other team members received one-up messages. Social workers also sent one-up messages to two primary team members, namely nurses and chaplains.

DISCUSSION

The purpose of this study was to explore the interpersonal communication dynamics of hospice team members during IDT meetings. Relational control messages were assessed by coding each team member’s remarks for control type (one-up, one-down, one-across). One-up and one-across message control types were the prevalent kinds of relational control messages used in hospice IDT meetings. Given that one of the goals of the hospice IDT meeting is to foster collaboration, we would expect to find a majority of one-across messages, as interaction that neutralizes control of the exchange would likely create an organizational climate conducive to interpersonal collaboration among team members. However, this study found that the control dimension of interpersonal communication in team meetings was slightly dominated by one-up messages, aimed at gaining control of exchanges, indicating that a majority of communication in team meetings is controlled. Results showed that almost half of the communicative efforts of nurses, social workers, and chaplains were aimed at gaining control of the exchange.

Although one-up and one-across messages were almost equal in terms of the number of messages sent, it is important to note that one-across messages are extensions of one-up messages. We surmise that this is likely due to the role of the nurse as primary discussant of patient cases in all of our recorded meetings. Thus, a majority of the communication in meetings reflected the nurse’s role as reporter, which characterized verbal communication as one-up message strategies as well as enabled direction of the communication topic through one-across message strategies. In this manner, nurses obtain relational communication control through redundancy, identified as patterns of regular effort to obtain control (Rogers & Farace, 1975). Thus, the nurse’s role in the IDT meeting implicitly creates relational control in the group’s information-sharing process.

Further examination of one-up messages sent and received by varying team members suggests that interpersonal communication does not always lead to interpersonal collaboration. In this dataset, the perfunctory role of reporter contributed to the nurses’ dominance as characterized by the complementary exchange of direct one-up and one-across messages (Rogers & Farace, 1975). However, indirect message patterns revealed that nurses are the most common target (36.3%), with 88.7% as one-up messages. Thus, it appears that team members recognize the nurse as primary informant; however, this role does not always initiate information sharing by
other team members. This is evidenced by the number of indirect one-up messages sent to nurses.

### KEYPONTS

**INTERPERSONAL COMMUNICATION**


1. Biomedical information is most commonly shared in team meetings, contradicting the goal of interdisciplinary collaboration and care.

2. Interpersonal communication in team meetings is influenced by organizational context. Nurses are the primary reporters in meetings, largely because they see patients more often than other team members.

3. Providers should pay attention to the information considered the standard discussion within the meeting and encourage other team members to share information.

Congruent with previous findings on information sharing in IDTs (Wittenberg-Lyles, 2005), the nurses' primary reporting role inherently manifests an emphasis on biomedical information sharing, and thus nonmedical disciplines (e.g., social workers, chaplains) do not share equally. The data in this study exemplify this inequality, as chaplains and other team members (e.g., home health aides, volunteer coordinators, bereavement coordinators) received only one-up messages; consequently, their contributions to the team meeting were likely not expanded on as topics of discussion. In addition, indirect messages sent by medical directors were primarily one-up messages. Thus, nonmedical information such as the patient’s psychological or spiritual well-being is likely diminished in the information-sharing process as a result of the focus on primary reporting by the nurse.

Given that all of the data in this pilot study portrayed the nurse as the primary reporter sharing biomedical information, we concluded that biomedical information became the common information shared in the group, as the pattern was repeated at every team meeting. Previous research has shown that common information is shared more prevalently than new information (Stasser, 1999). Therefore, the nurse’s report, a manifestation of an organizational role, sets the tone for the meeting and creates a pattern for reporting and reviewing patient cases. In this manner, the pre-established pattern does not afford much opportunity for new information to be shared. Rather, it functions as a gatekeeper for other disciplines to be able to freely share information, information that would be considered new by the normative information-sharing practices of the group.

Because of the traditional medical hierarchy that positions physicians at the top, we expected to see medical directors exhibit a more dominant role in information sharing. Rather, medical directors (14.1%) contributed slightly less than social workers (14.8%). Interestingly, medical directors only sent one-down and one-across indirect messages to social workers, and all other team members received only one-up indirect messages. It is possible the medical director facilitates and assists with the social workers’ ability to share information in the group. Similarly, social workers had more one-up messages than medical directors (39.8% versus 33.3%) but had less one-down messages (21.1% versus 33%). This suggests that, compared with medical directors, social workers have an unclear role for sharing information in the team meeting setting.
After recording and watching all of the meetings, our findings suggest that structural characteristics of the organization may influence interpersonal communication in IDTs. These characteristics include manageable caseloads, an organizational culture that supports and encourages interdisciplinary collaboration, administrative support, professional autonomy, and the time and space for collaboration to occur (Bronstein, 2003). Such characteristics may explain the prevalence of one-up and one-across messages, wherein half of the communication is directed at information sharing rather than collaboration. For example, organizational elements that may affect the nurse’s report include the pressure for time as well as the nurse’s current caseload.

Overall, this study suggests that interpersonal communication in team meetings is influenced by organizational context. Organizational policies and procedures are influential factors in the development and maintenance of formal organizational relationships. The formal relationships developed between team members are governed by the hospice agency that establishes the team and determines where and how team meetings will be conducted. In hospice, the nurse’s role as primary reporter for the IDT meeting manifests relational control by impeding new information sharing. The selection of nurses as primary reporters is likely due to their role in care, as nurses see patients more often than other team members and are likely to be most familiar with the patient. However, this begs the question: What kind of information is routinely shared in IDT meetings by other members? How are they sharing it? How does the nurse’s role as reporter contribute to collaboration in team meetings? How do hospice agencies ensure interdisciplinary collaboration in team meetings?

**CLINICAL IMPLICATIONS**

It is important to note that this is a small, exploratory study and conclusions are not meant to be generalizable but to encourage reflection on practice and future research. The data analyzed did not account for variation in the length of stay for patients. Patients who have extremely brief lengths of stay may be discussed only once or twice in IDT meetings and may not receive a visit or assessment by all of the team members present at the IDT meeting. Thus, variation in length of stay is likely to affect the content and amount of communication about plans of care in the IDT meeting.

Findings from this study caution hospice agencies to reflect on their current IDT practices. Collaborative interdisciplinary teamwork among health care providers has shown improved patient outcomes, improved satisfaction, and cost reduction (Hearn & Higginson, 1998; Mills et al., 2008; Reader et al., 2007). However, structural and communicative barriers exist in the process (Bokhour, 2006; Bronstein, 2003; DeLoach, 2003; Larson, 2003; Reese & Sontag, 2001), and interdisciplinary collaboration does not always take place (Bokhour, 2006). A lack of collaboration within the hospice IDT meeting can affect patient care and safety (Hearn & Higginson, 1998; Mills et al., 2008; Reader et al., 2007). The results of this study suggest that interpersonal communication in IDT meetings is influenced by the organizational structure of the nurse’s role as primary reporter. We offer the following reflections.

First, providers should reflect on their own team behaviors and practices in IDT meetings. Do IDT meetings begin with a formal report by a nurse? Attention should be given to what kind of information is considered the standard discussion within the meeting. What information is important to share to develop comprehensive care plans? Providers should reflect on meetings in their organization to ascertain if this information is being presented and discussed during the IDT. An absence of important information might mean that discussions within IDTs are not meeting the targeted goal of developing holistic plans of care.
Second, providers should encourage other team members to share information during team meetings. To produce collaborative care plans, team meetings should consist of discussion about all aspects of the patient’s care, including but not limited to the physical, psychological, emotional, and spiritual issues faced by both the patient and family. To accomplish this, team members from varying disciplines must share information with each other about these specific issues.

Prior research has documented the need for increased interprofessional understanding of skills, roles, and function within the team (Kay, Husbands, Antrobus, & Munday, 2007). Strategies to improve and enhance communication among IDT members should be explored to determine best practices for IDT meetings. Training and education about how best to communicate in IDT meetings could increase the likelihood of developing holistic care plans and bolster interpersonal relationships by educating team members about the valuable contributions of others. Team building activities could serve to bolster work-team identification, which has been associated with more positive ratings than between-occupation communication (Grice et al., 2006), as well as help educate team members about the function and role of others.

Finally, providers should examine the potential effect of interpersonal communication in team meetings on the development of appropriate care plans. Are holistic care plans being developed through collaboration or as discipline-specific plans are put together? Does the care plan include both the patient and the family? Findings from this study suggest that team building, structured assessments, and group communication skills could be the keys to developing holistic care plans that include a biomedical and psychosocial focus. While the importance of interdisciplinary sharing and knowledge is needed to develop appropriate plans of care, little is known about the methods of communication in IDT meetings that best influence patient outcomes. Future research should examine the ways in which hospice agencies train providers to work together as well as the evaluation practices used to assess the quality of the care plan and its impact on patient outcomes.

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References
Grice TA, Gallois C, Jones E, Paulsen N, Callan VJ. “We do it, but they don’t”: Multiple categorizations and work team communication. Journal of Applied Communication Research 2006;34:331–348.
Web site: http://www.softa-soatif.com/docusofta/other%20instruments/FRCCCS.doc


Sabur S. Creating an optimal culture and structure for the IDT. Hospice Palliative Insights 2003;4:22–23.


TABLE 1
MESSAGES SENT IN HOSPICE INTERDISCIPLINARY TEAM MEETINGS

<table>
<thead>
<tr>
<th>Team Member</th>
<th>One-Up (%)</th>
<th>One-Down (%)</th>
<th>One-Across (%)</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse</td>
<td>458 (42.1)</td>
<td>177 (16.3)</td>
<td>454 (41.7)</td>
<td>1,089 (56.8)</td>
</tr>
<tr>
<td>Social Worker</td>
<td>113 (39.8)</td>
<td>60 (21.1)</td>
<td>111 (39.1)</td>
<td>284 (14.8)</td>
</tr>
<tr>
<td>Medical director</td>
<td>90 (33.3)</td>
<td>89 (33)</td>
<td>91 (33.7)</td>
<td>270 (14.1)</td>
</tr>
<tr>
<td>Chaplain</td>
<td>79 (42.7)</td>
<td>42 (22.7)</td>
<td>64 (34.6)</td>
<td>185 (9.7)</td>
</tr>
<tr>
<td>Other</td>
<td>28 (31.5)</td>
<td>20 (22.5)</td>
<td>41 (46.1)</td>
<td>89 (4.6)</td>
</tr>
<tr>
<td>Total</td>
<td>768 (40)</td>
<td>388 (20.2)</td>
<td>761 (39.7)</td>
<td>1,917 (100)</td>
</tr>
</tbody>
</table>
TABLE 2

INDIRECT MESSAGES SENT AND RECEIVED BY HOSPICE INTERDISCIPLINARY TEAM MEMBERS

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Medical director</th>
<th>Nurse</th>
<th>Social Worker</th>
<th>Chaplain</th>
<th>Other</th>
<th>Total</th>
<th>Indirect Messages Sent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical director</td>
<td>8↑</td>
<td>1↑↑</td>
<td>6↑↑</td>
<td>17↑</td>
<td>↓</td>
<td>28</td>
<td>16.4</td>
</tr>
<tr>
<td>Nurse</td>
<td>6↑↑</td>
<td>3↑↑</td>
<td>21↑↑</td>
<td>28↑</td>
<td>↓</td>
<td>84</td>
<td>49.1</td>
</tr>
<tr>
<td>Social Worker</td>
<td>5↓</td>
<td>1↓</td>
<td>10↑</td>
<td>10↑</td>
<td>↓</td>
<td>21</td>
<td>12.3</td>
</tr>
<tr>
<td>Chaplain</td>
<td>1↑↑</td>
<td>14↑</td>
<td>1↑↑</td>
<td>15↑</td>
<td>↓</td>
<td>26</td>
<td>15.2</td>
</tr>
<tr>
<td>Other</td>
<td>2↓</td>
<td>9↓</td>
<td>9↑</td>
<td>9↑</td>
<td>↓</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>7↑↑</td>
<td>55↑↑</td>
<td>30↑↑</td>
<td>101↑</td>
<td>↓</td>
<td>171</td>
<td>100</td>
</tr>
</tbody>
</table>

Indirect messages received (%) 36 (21.1) 62 (36.3) 38 (22.2) 30 (17.5) 5 (2.9)

Note. ↑ = one-up message; ↓ = one-down message; → = one-across message.

More than one nurse was present in team meetings and thus nurses sent messages to other nurses.