

# Organizational Culture

## *An Important Context for Addressing and Improving Hospital to Community Patient Discharge*

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**Background:** Organizational culture is seen as having a growing impact on quality and safety of health care, but its impact on hospital to community patient discharge is relatively unknown.

**Objectives:** To explore aspects of organizational culture to develop a deeper understanding of the discharge process.

**Research Design:** A qualitative study of stakeholders in the discharge process. Grounded Theory was used to analyze the data.

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Supported by a grant from the European Union, the Framework Programme of the European Commission (FP7-HEALTH-F2-2008-223409).

The authors declare no conflict of interest.

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ISSN: 0025-7079/12/000-000

**Subjects:** In 5 European Union countries, 192 individual and 25 focus group interviews were conducted with patients and relatives, hospital physicians, hospital nurses, general practitioners, and community nurses.

**Results:** Three themes emerged representing aspects of organizational culture: a fragmented hospital to primary care interface, undervaluing administrative tasks relative to clinical tasks in the discharge process, and lack of reflection on the discharge process or process improvement. Nine categories were identified: inward focus of hospital care providers, lack of awareness to needs, skills, and work patterns of the professional counterpart, lack of a collaborative attitude, relationship between hospital and primary care providers, providing care in a “here and now” situation, administrative work considered to be burdensome, negative attitude toward feedback, handovers at discharge ruled by habits, and appreciating and integrating new practices.

**Conclusions:** On the basis of the data, we hypothesize that the extent to which hospital care providers value handovers and the outreach to community care providers is critical to effective hospital discharge. Community care providers often are insufficiently informed about patient outcomes. Ongoing challenges with patient discharge often remain unspoken with opportunities for improvement overlooked. Interventions that address organizational culture as a key factor in discharge improvement efforts are needed.

**Key Words:** hospital discharge, handover, organizational culture, barriers, patient safety, quality of care, hospital-primary care interface

(*Med Care* 2012;00: 000–000)

High-quality handovers at hospital discharge are challenged by an aging population,<sup>1</sup> and an increase in chronic and comorbid patients that require frequent and more complicated transitions between hospital and community care services.<sup>2</sup>

Continuity of care is essential in ensuring safe and high-quality care transitions.<sup>1,3,4</sup> However, hospital discharge often faces breakdowns in information, communication, and coordination between care providers.<sup>5–8</sup> These

breakdowns have serious ramifications for patients. Nearly 20% of hospitalized patients experience an adverse event within 3 weeks of discharge. These events range from minor symptoms to permanent disability and death. Half of the adverse events were deemed preventable or the severity could have been substantially mitigated.<sup>9,10</sup> Moreover, poorly executed handovers contribute to a further increase of unnecessary hospital utilization,<sup>11–13</sup> involving higher costs of care.<sup>14</sup>

Aspects of organizational culture, or how we providers “do things here” are increasingly appreciated in understanding how best to improve the quality of health care.<sup>15,16</sup> We defined organizational culture as: *the social-organizational phenomena, in terms of behavior or attitudes, that emerge from a common way of sense-making, based on shared values, beliefs, assumptions, and norms.*<sup>17–19</sup> Evidence suggests that organizational culture may be relevant for successful and sustained improvement efforts.<sup>20</sup> However, insights into the role of organizational culture on patient discharge have been limited. The cultural barriers are often hidden in the underlying, (invisible) social constructions and attitudes<sup>21–23</sup> and therefore difficult to identify and assess. A deeper understanding of the relationship between handover problems at hospital discharge and their underlying cultural barriers may contribute to the development and implementation of effective and sustainable interventions to attenuate adverse care events. The objective of this study was to gain insights into the impact of organizational culture aspects on the quality and safety of handovers at hospital to community discharge.

## METHODS

### Setting and Participants

We conducted a prospective, qualitative study of patient handovers at hospital discharge in 5 EU countries. The participating researchers involved in the HANOVER project represented various types of European health care systems (ie, the Netherlands, Spain, Poland, Sweden, Italy). The study was performed in 9 hospitals and their respective primary/community care systems. Four academic and 5 regional community hospitals were selected and represent wide variation in hospital structure, identity, and size (the number of beds varied between 127 and 1042). This study was part of a larger European study (the HANOVER project, FP7-HEALTH-F2-2008-223409).

The participants studied were stakeholders in the hospital discharge process: patients and/or relatives, and the respective professional care providers (eg, physicians, nurses) of the recruited patients in the hospital and in primary care. The patients were recruited when they fulfilled the inclusion criteria by the time of discharge from the hospital (Table 1). We used purposive sampling to ensure a diversity of patients (ie, age, sex, diagnosis, hospital setting, and wards) and care providers. The patients or their proxy, if a patient was unable to participate personally because of his/her illness, were asked for written consent. Ethics approval was obtained in each of the 5 study sites.

**TABLE 1. Study Population (Inclusion and Exclusion Criteria)**

| Inclusion   |   |
|---|---|
| Patients and/or caregivers  | 18 y old+<br>Admitted to internal medicine, pulmonary diseases, cardiology, or (vascular) surgical wards<br>Any of the following diagnoses: diabetes mellitus, asthma, COPD, chronic heart failure<br>Prescribed 6+ drugs<br>Recruited consecutively at the point of their hospital discharge<br>Discharged to the community (ie, home or nursing home) |
| Hospital physicians and nurses  | Internal medicine, pulmonary diseases, cardiology, or (vascular) surgical wards   |
| General practitioners and community nurses  | Representing the communities to which the patients were discharged  |
| Exclusion   |   |
| Patients referred to other care units within the hospital before their discharge home or discharge to another country |   |

COPD indicates chronic obstructive pulmonary disease.

### Data Collection

We conducted semistructured individual interviews and focus group interviews using interview guides that were developed during the HANOVER research meetings. The questions for the individual interviews were pilot tested in each country. The topics that guided the question development are the following:

- experiences with recent handovers (appreciative/problematic situations and consequences);
- perceptions about handovers in general (experiences, beliefs, norms, assumptions, methods, tools, barriers, and facilitators);
- perceptions about role taking, tasks, and responsibilities;
- thoughts and suggestions for improving patient handovers.

The individual interviews were conducted with patients who were recently discharged from the hospital to either their home or a nursing home, and with their hospital physician, hospital nurse, general practitioner (GP), and community nurse. Patients were approached before discharge from hospital, received information about the project, and were called after their discharge to schedule the interview (within 3–4 weeks after discharge). The focus group interviews were conducted with various types of stakeholder (ie, patients and patients' representatives, hospital physicians, hospital nurses, GPs, and community nurses) and varied in size from 3 to 9 participants per group. The focus group interviews were led by an experienced moderator and 1 or 2 observers who took field notes and added prompts. At the end of each focus group, the moderator summarized the information and allowed participants to reflect and comment on the accuracy and validity of this summary.<sup>24</sup> All interviews were audiotaped and transcribed verbatim in the native languages according to a standardized format.

### Data Analysis

The analysis consists of 2 parts: a general analysis of the interviews and a subanalysis focusing on the role of organizational culture aspects (Fig. 1).

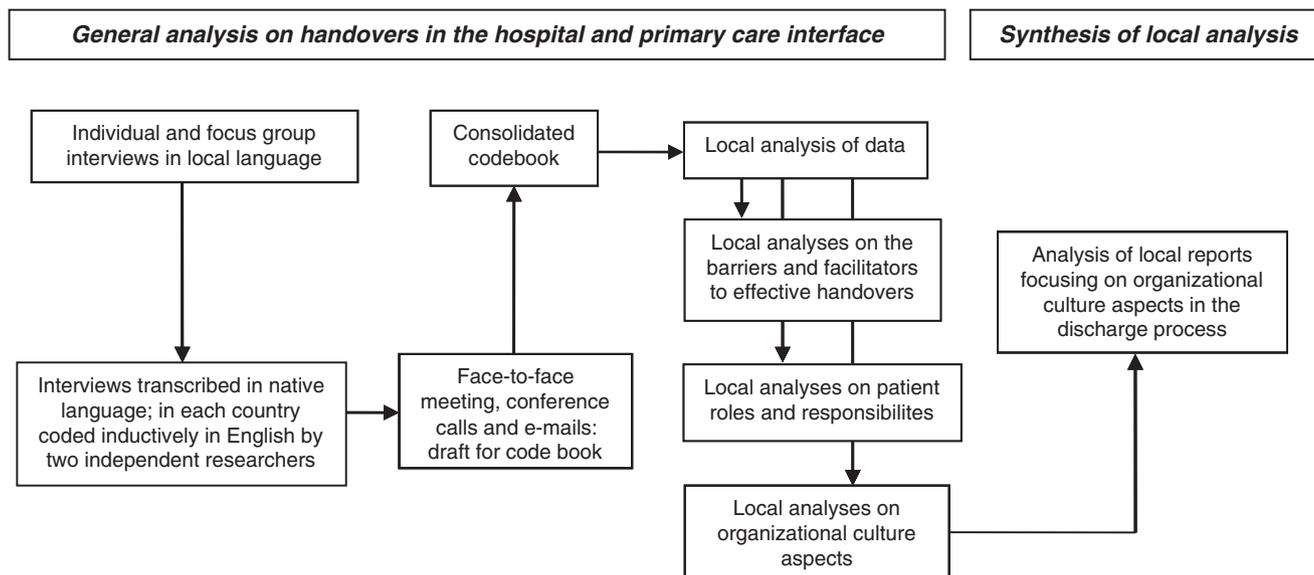


FIGURE 1. Procedure from data collection to the synthesis of local analysis.

**General Analysis**

The transcriptions of the interviews were analyzed using Grounded Theory.<sup>25</sup> Grounded Theory is based on concepts that emerge as the theory is formed. Two researchers in each country independently coded the transcripts inductively in English to minimize subjectivity. Atlas.ti software version 6.0 (ATLAS.ti Scientific Software Development Company, GmbH, Berlin, Germany) was used to facilitate the coding process. Coding is the interpretative process in which conceptual labels are given to the data.<sup>25</sup> The emerging codes were circulated among researchers in all countries and the list of codes was developed into a codebook, during a face-to-face meeting, conference calls, and electronic mail correspondence. The group agreed about the meaning of the English translation of the developed codes to ensure codebook fidelity. In addition, country-specific codes were created as needed. Regular conference calls were held to refine the codebook as other codes arose during the analyzing process, and to group codes that related to the same phenomenon into categories. Two researchers in each country further analyzed their data until conceptual saturation was reached in each country, that is, no new codes or categories were generated.<sup>25</sup> Researchers from each country (G.H., M.F., C.O., E.D.-U., and G.T.) performed 3 local analyses, with the agreed instructions and the codebook, with different foci on patient handovers in the hospital-primary care interface. The groups reported their findings, including quotes, in English.

**Synthesis of Local Analysis**

The reports of 1 local analysis were used to explore the role of organizational culture aspects in the discharge process and were discussed by 2 researchers (G.H., H.W.) that synthesized the local findings on this subject.<sup>26</sup> The categories and themes were identified across the different settings and where checked with the researchers from each country.

Additional quotes were provided from each country to illustrate the findings. Finally, according to the Grounded Theory approach of Corbin and Strauss,<sup>25</sup> we derived new hypotheses as a result from these data.

**RESULTS**

A total of 192 individual interviews and 26 focus group interviews were analyzed regarding organizational culture aspects in the 5 countries. Individual interviews were conducted with 53 patients and/or caregivers, 46 hospital physicians, 38 hospital nurses, 39 GPs, and 16 community nurses. Of the patients recruited for the study, 39 could not be interviewed for various reasons (ie, refused, too sick, or deceased). Individual interviews were evenly distributed across the countries and across ages and genders (Table 2).

The data analysis resulted in 9 categories from which 3 themes emerged: (I) a fragmented hospital-primary care interface, (II) undervaluing administrative tasks relative to clinical tasks in the discharge process, and (III) lack of reflection on the discharge process or process improvement (Table 3).

**Theme I: A Fragmented Hospital-Primary Care Interface**

Four categories emerged within this theme: inward focus of hospital care providers, lack of awareness to needs, skills and work patterns of professional counterpart, lack of a collaborative attitude, and the relationship between hospital and primary care providers.

Hospital physicians and nurses expressed great care and focus about their own work. Although they consider the continuity of care at the patient handover as important, they seem to be less aware of the implications of the handover process compared with their counterparts in the primary care setting. A main concern within the hospital is to discharge patients quickly so more patients can be admitted. This

**TABLE 2.** Interviews Analyzed for Cultural Themes: Patients and Care Providers

| Country                | Patients | Hospital Physicians | Hospital Nurses | General Practitioners | Community Nurses/Other |
|------------------------|----------|---------------------|-----------------|-----------------------|------------------------|
| Individual interviews  |          |                     |                 |                       |                        |
| The Netherlands        | 8        | 8                   | 8               | 8                     | —                      |
| Spain                  | 8        | 6                   | 5               | 7                     | 4                      |
| Poland*                | 23       | 16                  | 10              | 13                    | 3                      |
| Italy                  | 5        | 7                   | 6               | 5                     | 4                      |
| Sweden                 | 9        | 9                   | 9               | 6                     | 5                      |
| Total number           | 53       | 46                  | 38              | 39                    | 16                     |
| Focus group interviews |          |                     |                 |                       |                        |
| The Netherlands        | 7        | 8                   | 5               | 5                     | 6                      |
| Spain                  | 3        | 8                   | 6               | 9                     | 7                      |
| Poland                 | 10       | 4                   | 7               | 4                     | 7                      |
| Italy                  | 9        | 4                   | 8               | 7                     | —                      |
| Sweden                 | 8        | 6                   | 6               | 6                     | 6                      |
| Total number           | 37       | 30                  | 32              | 31                    | 26                     |

\*Analyzed more interviews, because of no other reason than enthusiasm of the researchers.

“inward focus” hinders hospital physicians and nurses to support discharged patients with sufficient after thought or care and to communicate adequately with their primary care counterparts. As a consequence, the quality of information handed over is deficient and limits the ability of GPs to continue care after discharge smoothly.

Physicians and nurses believe that there is a lack of awareness about the different assumptions (mental models) and working patterns of the hospital personnel compared with those in primary care. Hospital physicians and nurses expressed a lack of familiarity with the way follow-up care is organized in the community, the expectations of their primary care counterparts and the informational needs of their primary care counterparts, and also, whether those needs were met during routine patient handovers. This lack of knowledge and limited awareness leads to further breakdowns in communication and information sharing at discharge. A striking example noted is the use of medical abbreviations and acronyms in which the meaning was unknown to the GP (thereby increasing the risk for misinterpretation). According to GPs and community nurses, hospital care providers overestimate the very limited time and resources available to providers in the community setting. Hospital care providers are not sufficiently aware of the complex social context in which home care needs to be organized and resourced, and often take these aspects for granted. GPs and community nurses expressed a sense of urgency about the need to improve the contact with and understanding between hospital and community care providers; they are the ones at the end of the care chain that have to constantly deal with the consequences of inadequate handovers.

Physicians and nurses, in the hospital and community, do not feel they are integral parts of an organized health delivery system (handover network), but regard themselves more as separate entities (actors) with different professional backgrounds in the delivery of care. Handovers at discharge are considered more the result of an individual rather than a collaborative effort. Communication is reduced to giving and receiving information and instructions rather than a shared

decision-making process regarding the most effective patient follow-up. Hospital physicians and nurses admit difficulties with taking up the initiative to improve their coordination of patient care. For instance, calling the GP or community nurse is not integrated in their work flow. When communication at discharge does occur, it is considered to be quite formal and brief. It is widely acknowledged that important communication issues remain unspoken and taken for granted.

Hospital and primary care providers expressed their relationships as formal and distant, and at times as negative as well, although there were country-specific differences (Table 4). This “cool” relationship hinders the trust required for effective communication and collaboration in terms of getting things done easily and addressing or disclosing problems. They also noted that contact with their colleagues in primary care is less personal and direct. Moreover, community nurses felt that they are not always taken seriously or approached very respectfully by hospital nurses, which undermines their trust and affects future attitudes during handovers at hospital discharge.

## Theme II: Undervaluing Administrative Tasks Relative to Clinical Tasks in the Discharge Process

There were 2 closely related categories under this theme: providing care in a “here and now” situation, and administrative work considered to be burdensome.

Health care providers referred to their professional identities by expressing that they became a physician or nurse to provide patient care and *not* to work as an administrator. This belief has become more acute with the increased focus on productivity, constant time pressure, and a heavy patient workload. Physicians and nurses at the hospital and primary care levels argued that often there is not enough time to fulfill both roles. Administrative duties (eg, planning discharge, writing letters, making phone calls, organizing community care) therefore become a secondary priority.

Essential administrative activities are postponed and pile up unattended. Documentation needs to be completed in a rush, or the follow-up care is organized at the very last

**TABLE 3.** Cultural Themes, Categories, Codes, and Quotes Related to Handovers at Patient Discharge

| Theme  | Category  | Codes   | Representative Quotes  |
|--|---|---|--|
| A fragmented hospital-primary care interface | Inward focus of hospital care providers   | Care provider responsibility; follow-up assessment at discharge; discharge communication; hospital interested in patient after discharge; stress; completeness of information   | Hospital physician [NL]: ...if we see that a discharge is coming, then it has to be finished (...) there is the pressure that it needs to happen. (...) And yes, I tend to draw my attention away...you back down a little bit because the patient needs to go away<br>Hospital nurse [SW]: Sometimes you feel that the hospital physicians have made a decision about discharge, and then you feel that it is actually a little bit too early. But you don't have that much of a choice since there is such a high pressure with patients at the ward<br>Hospital physician [PL]: I work in the hospital and my job for the patient finishes when the patient closes the hospital door behind him<br>Patient [NL]: You are dumped just like that and told: "you can go"   |
|  | Lack of awareness to needs, skills, and work patterns of the professional counterpart | Different views of hospital and PC; information needed for handover; clarity of information; lack of knowledge; beliefs about counterpart; uncertainty about follow-up; use of medical language; inadequate follow-up | GP [NL]: They (the hospital physicians) think in another domain, just like we have ours<br>GP [SP]: The problem is that they (hospital and primary care) are 2 completely different worlds<br>Hospital nurse [SW]: ...it is easy to misunderstand each other, you work in different ways in the EC and the primary care. It is just that you have different opinions, we don't know how work is done at the primary care really, and they don't know how work is done at the hospital<br>Community nurse [NL]: The hospital makes a significantly wrong assessment and requests insufficient community care. As a community nurse you have serious problems when such a patient returns home, because you are not allowed to provide more care than what is requested. Our number of working hours is only based on things like bandaging and not for (...) transporting the patient to the outpatient clinic, or keeping administration up to date<br>Community nurse [PL]: It (discharge information) is incomplete (...) Some information about how to move the patient, whether the patient can perform exercises, if he can take a shower (...) Apart from the medical discharge chart, there should be specific information, both for a doctor and for a nurse |
|  | Lack of a collaborative attitude  | Professional autonomy; contact with counterpart has no priority; initiative to communicate; formal/swift communication; difficult access to care provider; self-directive attitude                                    | GP [PL]: ...handover does exist but only formally and in paper form<br>GP [NL]: The major problem is that someone has to take the initiative to call...This is often difficult<br>GP [NL]: Well, in 50% of the cases it is communicated. In the other 50% of the cases there is no communication at all, or the expectation is that you'll understand it<br>GP [SP]: We do not communicate. We just exchange information...sometimes<br>Hospital nurse [SP]: You invent your own world of information and make your own assessment<br>Hospital physician [IT]: We are on 2 different tracks that hardly meet. They read our discharge reports. We read their referral notes and we all keep on going on our own direction<br>Patient [SP]: I showed the discharge report (to the community nurse); she saw it, but told me that the information was not useful for her   |

(Continued)

**TABLE 3.** Cultural Themes, Categories, Codes, and Quotes Related to Handovers at Patient Discharge (*continued*)

| Theme   | Category   | Codes  | Representative Quotes  |
|---|--|--|--|
|   | Relationship between hospital and primary care providers | Level of trust; competition; personal contact/acquaintance between hospital and PC providers; respect; honesty; irritation         | Hospital physician [SP]: First of all, we should look at each other as partners, and not as rivals, which is the way we look at each other by now<br>GP [PL]: They provide their recommendations which we follow. I view them as high class specialists and view hospital as superior authority. There's no partnership<br>Community nurse [NL]: At times you get sent away with a such cliché. (...) When you call to the ward the reaction is often "I will pass it through" and you have to wait and see what really happens<br>Patient [SW]: There is a distance between the hospital and primary care. Each part protects his own territory   |
| Undervaluing administrative tasks relative to clinical tasks in the discharge process | Providing care in a "here and now" situation             | Professional identity; prioritizing care   | Hospital physician [SP]: When you have surgery you need to focus on that (...) in the end you cannot do everything (administrative tasks and communication with GP)<br>Hospital physician [NL]:...surgeons are more like "I want to finish this first" or "I want to do something for the patient" and don't feel like sitting behind the desk writing discharge letters<br>Hospital physician [IT]: Problems may emerge when we do the handover too close to the discharge date. The community care staff has not enough time to act (...)...we know this, but...we are always full with people (patients) and...it just slips up                 |
|   | Administrative work considered to be burdensome          | Timeliness of information; lack of time; work pressure; medical discharge report   | Hospital nurse [NL]:...you have so many things to do beside direct nursing care: logistics, administration...You sometimes tend to set priorities and think: "Okay, I will do these papers tomorrow" or "This list of the dietician...not right now"   |
| Lack of reflection on the discharge process or process improvement                    | Negative attitude toward feedback                        | Feedback between hospital and PC; disputes on handovers; negative experiences with feedback; skepticism toward individual feedback | GP [NL]:...at a certain moment you get tired you know. (...) that I think: "I don't feel like doing it anymore". I have other, more important things to do than chasing hospital staff<br>Hospital nurse [IT]: A "good job!" said once in a while could help...<br>GP [NL]:...Yeah, and then you start calling again and argue about it, but that's not working at all (...) they say: "that's how we do it always"  |
|   | Handovers at discharge ruled by habits                   | Use of handover guidelines; handover based on routines; not educated/trained on handover   | Hospital physician [SW]: I don't know whether there are written guidelines. However, you have learned during the years how it is supposed to be<br>Hospital nurse [SP]: We are not thinking about how we work (...) we have always been working in this way and it is just the only way we have  |
|   | Appreciating and integrating new practices               | Use of ICT; shared information system between hospital and PC; resistance to new practices; confidence in new practices            | Hospital nurse [NL]: I hope that we get more computers and that they don't crash. (...) many of us here start to think, "let's continue on paper again." (...) It needs to work well from the beginning<br>Hospital nurse [SP]: ...if I have to learn new communication techniques that do not seem useful for me, I will not be interested in using it<br>Hospital nurse [NL]: At forehand, a lot of colleagues already detested this whole EPR system, as it already has lead to many problems. So, everybody thinks right now: "Oh my God, here we go again!" (...) Everybody is getting apathetic from the idea to work with EPRs at handovers |

EC indicates emergency care; EPR, electronic patient record; GP, general practitioner; IT, Italy; NL, the Netherlands; PC, primary care; PL, Poland; SP, Spain; SW, Sweden.

moment. These tasks are often delayed, suboptimal, or not done at all. Hospital physicians and nurses describe many situations where they missed or forgot to handover essential information (within a reasonable time period), because they were too busy with other more pressing patient care activities.

Care providers in Poland expressed a stronger motivation to complete the discharge letter/chart on time compared with the other countries. This is a result of legal and reimbursement obligations that have socialized providers to prioritize these essential steps.

### Theme III: Lack of Reflection on the Discharge Process or Process Improvement

Three categories emerged related to this theme: negative attitude toward feedback, handovers at discharge ruled by habits, and (appreciating and) integrating new practices.

The experiences with one-to-one professional feedback between hospital and primary care concerning a patient's handover at discharge are rare. The interviews demonstrated that feedback is not often considered or simply is not always feasible because of time constraints or lack of accessibility. In Poland, feedback is also believed to be inappropriate as community care providers often perceive medical or nursing discharge letters as a superior, undisputed reference. Physicians and nurses were skeptical toward giving and receiving feedback, because their past experiences were disappointing. They did not experience mutual respect nor did they consider that their opinion about the patient was appraised as adding value. There were also physicians and nurses who reported having only negative experiences such as pinpointing and blaming each other.

Health care professionals have not been trained on how to perform optimal or evidence-based handover practices at discharge (ie, guidelines, checklists, instructions). In fact, handover is not taught in a structured manner with the expectation that it will be learned implicitly. Handover practices seem to be mostly based on heuristics that have developed and been integrated into their professional work along the way.

Physicians and nurses reported that successfully integrating innovative handover practices will require the right mindset, openness to learn new working routines, confidence in the added value, and regular practice of these skills.

**TABLE 4.** Country-specific Examples of Hospital to Primary Care Provider Relationships

|                                    |  |
|------------------------------------|--|
| The Netherlands, Sweden, and Italy | Physicians and nurses argued that a closer relationship with counterpart colleagues is more likely in a regional hospital than in a large, academic hospital with constantly new and rapidly shifting personnel        |
| Spain                              | Physicians and nurses described feelings of rivalry and prestige as barriers for discharge communication, and collaboration  |
| Poland                             | Hospital care physicians and nurses are perceived to be a higher authority than their colleagues in primary care. Their decisions, recommendations, and other information at discharge are "sacred" and not challenged |

Physicians and nurses expressed stories about themselves and colleagues remaining stuck in old working patterns, because they do not want to change their habits or find it difficult to cope with new practices such as working with computers or new, constantly changing software. Dutch and Spanish physicians indicated that the willingness to integrate new handover practices into their working system is also a matter of age. According to them, the younger hospital physicians seem often less resistant and are also better in adapting to new working or communication methods, that often involve Information technology.

### DISCUSSION

Hospital and community care providers, patients and relatives associated quality and safety of handovers at hospital discharge with many aspects of organizational culture (ie, the social behavior and the underlying shared values, beliefs, assumptions, and norms of health care providers in the hospital and community). Our findings indicate that hospital and primary care providers, both members of the same virtual "handover organization," have separate "professional tribes" and have different, often incompatible values and beliefs that threaten to undermine the effectiveness and safety of patient transitions.<sup>27,28</sup> Although this is a known source for potential discontinuities of care within health institutions,<sup>15,29</sup> and within primary care,<sup>30</sup> this emerging realization is key to addressing ineffective handovers at hospital discharge.<sup>31</sup> Our findings also highlight weaknesses in the relationships of shared goals, shared knowledge, and mutual respect between hospital and community-based health care providers. These "relational dynamics" are associated with a lack of frequent, timely, accurate, and problem-solving communication, in turn predicting low levels of quality and efficiency.<sup>32-34</sup> Ensuring continuity of care at discharge does not seem to be a main concern for hospital-based care providers as long as they are not aware and do not experience the untoward consequences of the handover. Furthermore, the professional duty of providing care prevails in minds of care providers and takes precedence over dealing with administrative coordination of care. This finding may best be understood in terms of a "professional-bureaucratic work conflict."<sup>35,36</sup> The inherent conflict between the professional and the bureaucratic organizational goals and values result in competing pressures and loyalties ultimately leading to a prioritization of one goal at the expense of the other.<sup>37</sup> Finally, provider skepticism and lack of respect toward providing feedback are major causes for not giving and receiving structural feedback. Physicians and nurses are less willing to confront each other with handover inefficiencies and take current handover practices for granted. In line with the findings of other studies,<sup>33,38</sup> these attitudes may prevent learning from occurring and thereby may contribute to an unsafe discharge environment. A safe discharge environment is also challenged by the care provider's sense of having insufficient experience-based training on how to do effective handovers at discharge. Earlier studies confirm our reports about a lack

of actual handover training or the routine use of standardized guidelines on patient handover.<sup>37,39</sup>

We have several suggestions for improving handovers at hospital discharge. Changing attitudes may be enhanced through local and collaborative learning meetings between hospital and primary care providers to understand each other's competencies (regarding knowledge, skills, and possibilities), and to improve the mutual agreement and understanding of follow-up care expectations. Our second suggestion for improvement is to provide educational and training programs to address new best practices and link the rationale for a new practice change to patient safety and efficiency goals.<sup>40</sup> In this way, the hospital and primary care providers may better understand how their own thinking and actions impact quality and safety.<sup>41</sup> Teaching could be enriched by the use of stories or "vignettes" both meaningful and memorable to staff, because they demonstrate the direct link between handover processes and their effects on patient care.<sup>41,42</sup> Furthermore, we suggest the use of (electronic) mandatory fields for creating discharge letters. Electronic reminders may enhance timely and appropriate information exchange and discharge planning.<sup>43</sup>

Our study has several limitations. The impact of organizational culture on patient handovers at hospital discharge was analyzed and compared between the 5 countries in the study. Each country has their own distinct health care delivery systems, comprising unique legislative and organizational characteristics, and within different clinical settings. Although the themes seemed to be consistent across the 5 countries and the influence of the varying systems on the findings were frequently discussed during regular face-to-face meetings or through e-mail correspondence in the period of data collection and analysis, the local and specific impacts of these cultural barriers may have been under appreciated. Second, the interviews were transcribed in the respective native language of the 5 countries. This may have increased the chance for variations in the interpretation of our data.<sup>44</sup> We made all efforts to ensure methodological rigor and validity of the translations from English to native language across the study sites by using a standardized codebook, meeting frequently, sharing and comparing our results, and by performing a pilot analysis. Throughout the study, 2 senior qualitative researchers (J.K.J. and M.V.-D.) conducted an ongoing internal quality audit, adapted from Mays and Pope,<sup>45</sup> and from Tong et al,<sup>46</sup> to determine whether the data were collected, analyzed, and reported correctly according to the study protocol.

We believe that the present study has considerably advanced our understanding of the influence of organizational culture. The use of individual and focus group interviews provide valuable insights into the social behavior and the underlying shared values, beliefs, assumptions, and norms of health care providers in the hospital and community. These constructs are difficult to identify and assess by quantitative research methods alone, and often, by not appreciating their impact, we can undermine the success of clinical interventions.<sup>47,48</sup> On the basis of the data, we hypothesize that the extent to which health care providers, in particular within the hospital, value handovers as an

important aspect of their clinical work aimed at ensuring continuity of their patient's care and the extent to which they integrate this value in handover practice by developing an outward view, a collaborative attitude, knowledge to anticipate the needs of their counterparts, administrative compliance, giving and receiving feedback, and integrating new practices, is critical to effective hospital discharge. In particular, we hypothesize that a shared goal to ensure continuity of care, shared knowledge, and mutual respect between hospital and community-based health care providers in the discharge process would increase frequent, timely, accurate, and problem-solving discharge communication, and in turn improve the quality and efficiency of hospital discharge. The theory of relational coordination provides a practical framework to measure these relational dynamics between hospital and community health care providers in the discharge process, and their association with the quality of the discharge process (ie, frequent, timely, and accurate discharge communication) and quality of care outcomes.<sup>32,33</sup> We urge future studies to test this model in assessing the impact and implementation of handover practices.

#### ACKNOWLEDGMENTS

*The authors thank the health care providers, patients, and their relatives who participated in this study.*

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