# ORIGINAL ARTICLE

# What do health professionals think about patient safety?

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#### Abstract

Introduction Patient safety is a main determinant of the quality of healthcare services. The literature shows that the occurrence of medical errors is quite important in countries where it has been measured. Various actions like legislative measures, financial, or educational measures may help, but they are not always effective in controlling the level of avoidable errors. That happens because patient safety is strongly related to the culture specific to healthcare organizations. This study is aimed at getting some perspective on the organizational culture in Romanian hospitals in regard to patient safety.

*Objectives* The main objectives are (1) to identify the views of healthcare professionals about patient safety in Romanian hospitals and compare them with other countries, (2) to identify to which extent the views about patient safety

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A.-M. Yazbeck Eurami d.o.o., Ilirska 18, 1000 Ljubljana, Slovenia e-mail: amy@s5.net relate to the specific organizational culture in healthcare, and (3) find out if there are differences in perceptions of professional categories about their own work and that of the clinical team.

*Method* A survey was conducted, based on a questionnaire. The questionnaire was aimed at realizing a screening of the problem, to get some specific views of respondents from their work experience, and eventually to get suggestions on how to improve patient safety. The same questionnaire has been previously applied in four other countries: Australia, Singapore, Sweden and Norway. Overall views of hospital professionals from Romania were compared to those from the other countries. Also, views per professional categories clinical vs. non-clinical staff, doctors vs. nurses, and senior vs. junior staff—were compared.

*Results* Answers from 100 respondents from Romania indicate that patient safety is a major concern of hospital professionals, and it should be improved. Basically, they show as much interest and willingness to improve as observed in the other countries. This indicates that no major differences in the organizational culture exist in regard to patient safety. However, differences among professional categories have been noticed; for example, nurses are more aware than doctors on the need to take action for improving patient safety.

*Conclusions* Patient safety is a major concern of health policy in many countries. In Romania, this study shows concern of professionals about patient safety, although they are facing many barriers such as inadequate leadership, lack of communication between professional categories, between senior and junior staff, and most of all with the patients. This is a problem of organizational culture, which requires complex, multi-level strategies, targeting a long-term change. Results of this initial study should be viewed as a baseline for a larger study.

Keywords Patient safety · Quality of care · Medical errors · Organizational culture · Quality management · Risk management

## Contributions

DH realized the conceptual framework of the study and provided the tool (questionnaire) and the data. SH conducted the literature review and wrote the first draft of this paper. SH and PR analyzed the data and contributed to subsequent drafts. AMY was involved in data collection and analysis.

## Background

Patient safety has been defined in various ways in the literature. In general, its meaning is related to larger concepts like quality assurance, total quality improvement or total quality management, which basically refer to a sum of ideas and techniques for improving clinical practice. Most simply, patient safety represents the extent to which patients are protected against avoidable harm, where avoidable harm is a loss of health outcomes caused by the way care is provided.

Many countries are trying to identify and measure the level of avoidable harm, with most evidence coming from Australia, the United States and Great Britain, countries which have invested an important amount of resources in the past 10 years. Besides measuring the costs associated with avoidable harm, countries were interested in finding out the magnitude of the problem. A recent literature review (Hindle et al. 2005) shows that "the problem is large, is greater than many people have previously assumed, and does not seem to be responding rapidly to increased interest and effort." A study of the US Institute of Medicine (2000) extrapolated results from the Harvard Medical Practice Study (Brennan et al. 1991) for hospital admissions in the USA and gave estimates of deaths per year, concluding that adverse events were more significant by far than motor vehicle accidents, breast cancer or AIDS. It was estimated that medication errors alone, occurring either in or out of the hospital, resulted in at least 7,000 deaths per year (Occupational Safety and Health Administration 1998).

In the same time, Runciman and Moller (2001) estimated the magnitude of the problem in Australia, a conclusion of the study being that iatrogenic injury occurs in at least 10% of hospital admissions for acute care, which are associated with a potentially preventable adverse event. Other results were presented in a report of the Centre for Clinical Governance Research in Australia (Hindle et al. 2006) following inquiries carried out in eight hospitals in five countries: Australia, Great Britain, New Zeeland, Slovenia and Canada. Conclusions of the study were that medical errors are very common, most of them relating to failure in recognition of a serious and unstable condition, and omissions in the course of diagnosis or treatment.

In what concerns the causes of poor patient safety, a literature overview (Hindle et al. 2005) shows two main views, overlapping to a certain extent: first, that individual care providers are making mistakes because of fatigue, lack of knowledge or carelessness, and at the same time, that the majority of errors are due to poor teamwork, having little to do with the behavior of individuals. Similarly, the Institute of Medicine study (2000) claims there is a widespread culture of blame and that the focus of actions "should shift from blaming individuals for past errors toward preventing future errors by designing safety into the system." Kizer (2001) when reporting the views of the National Quality Forum to the US Federal government noted there were "many barriers to progress including widespread misunderstanding about why healthcare errors occur, the prevailing culture of name and blame surrounding these events, lack of user-friendly error-reporting mechanisms, and fear of litigation if errors are acknowledged and reported."

Most of the evidence in the literature shows that efforts to improve patient safety are concentrating on identifying and measuring the effects of poor patient safety. They are less oriented on how to prevent avoidable harm. The Institute of Medicine study (2000) shows that there is already sufficient evidence that the level of avoidable harm is high. What is necessary is to identify the appropriate means to change that. Most of the proactive measures implied legislative changes, financial incentives, education, audits, consumer involvement or more and better research. But there is no evidence that any of those measures was effective by itself. However, a strategy oriented to improve the healthcare system overall, including concomitant actions in the above directions, may prove more successful. This is consistent with one of the conclusions of the Australian report of the Centre for Clinical Governance Research, which shows that "culture change in medical and health settings is needed. By this we do not mean structural change, as so often happens in health care, but change to the fundamental ways stakeholders work together and relate to each other and their patients over time" (Hindle et al. 2006).

It is useful for the purpose of further discussion to introduce what we mean by organizational culture. There are many definitions of organizational culture in the literature. It generally refers to a particular set of beliefs, values, expectations, customs and systems that are most common to an organization. The essence of organizational culture is illustrated very simply by Munir and Kay (2003) as the way that we do things around here." Although a contested concept, there is some degree of agreement on the aspects reflecting the organizational culture. For example, Davies et al. (2000) summarized these aspects, adapting from Robbins (1996) and Newman (1996): attitudes to innovation and risk taking, degree of central direction, patterns of communication, outcome or process orientation, internal or external focus, uniformity or diversity, people orientation, team orientation, aggressiveness or competitiveness, and attitudes to change. All of these aspects define an organizational culture in healthcare as well.

Although change in the healthcare organizations happens at a slower pace than in other service industries, in past years there has been a clear movement toward patientcentered, outcome-oriented and team-oriented culture. This movement was studied and described by Davies et al. (2000) for the British NHS. The past reforms of the Department of Health are based on the premise that quality of services and system performance can be improved by changes in the organizational culture alongside structural and process reforms.

At this point, we can summarize that no health policy can overlook the problem of quality of care. Medical errors, an indicator of patient safety, are a main determinant of quality of care and a key indicator for risk management in any healthcare organization. The occurrence of medical errors is a problem in most of the countries, no matter how evolved their healthcare systems are. Medical errors and patient safety should be viewed as system problems. As shown by the results of inquiries presented in the Australian report, most of the time, the problem is not the individuals, but the way they are integrated with the system, how the system functions with rules, standards and processes. Improvement of patient safety cannot be achieved with single individual actions, but with concerted efforts targeting a long-term change. In short, system problems require system solutions.

Although no study has tried to measure the magnitude of medical errors in Romania so far, we are aware that patient safety is a problem here as well. In order to learn about the organizational culture in hospitals regarding patient safety, we conducted a small survey on patient safety views. The aim of the study is to learn about how patient safety is perceived and viewed among healthcare professionals.

#### Study on health professionals views about patient safety

## Context of the study

As described in the background, the level of avoidable medical errors is one of the main indicators of the quality of healthcare services. In the past years patient safety has become a priority of health policies in the developed countries. A couple of countries succeeded in identifying and measuring the level of medical errors. Although no reports on this level could be found in Romania, it does not mean that avoidable errors do not occur. Reforms undertaken in the past 10 years, including the change of the providers' payment system from a retrospective (per diem) to a mainly prospective one (based on DRGs), implied major changes. The most important is the change of mentality of providers, which are now being reimbursed according to the results (volume and complexity of cases) they produce. Consequently, some efficiency gains may be assumed with such reform, whereas the impact on quality of care (including that of avoidable medical errors) was not measured or estimated so far.

Within the scope of the EU-funded project Improvement of Accountability and Transparency in the Allocation and Use of Healthcare Resources through the Implementation of an Informatics Monitoring System for Hospital Morbidity and a Hospital Case Based Financing System," with duration of 18 months ended in April 2007, a survey on patient safety perception among hospital professionals was carried out. Results of the survey served as the basis for this study.

## Description of the study

The aim of the study is to learn what health professionals working in hospitals think in regard to patient safety. This was achieved by means of a survey conducted in 12 hospitals in different districts of Romania.

The main dimensions addressed in the survey are the need to improve patient safety and the key factors determining the quality of clinical work. Findings of the survey are meant to inform and help decision makers in designing future reform actions on improving quality of services.

The study is not aimed at estimating the level of patient safety, but at exploring what health professionals' perception is in relation to patient safety because the way professionals see patient safety becomes in the end a determinant for the level of patient safety.

This is a small-scale, initial study. As far as we know, this is the first survey on patient safety conducted among health professionals in Romania. Therefore, findings should be viewed as a baseline for a larger study where the same methodology may be applied.

## Objectives of the study

The first objective is to identify the views of healthcare professionals about patient safety in Romanian hospitals and compare them with other countries. The second objective is to identify to which extent the views about patient safety relate to the specific organizational culture in healthcare.

The third objective is to measure perceptions of different categories of healthcare professionals about their own work and that of the clinical team.

The researched hypotheses are:

- 1. Romania is not different from other countries regarding the perception about the patient safety issue. There may be differences in terms of working environment, salaries or productivity of the personnel, but the medical culture is the same.
- 2. Patient safety is strongly related to organizational culture specific to healthcare, but inside this culture, different professional categories (doctors, nurses, etc.) have a different perception about patient safety.

## Method of study

The method of study is a survey based on a questionnaire, the *Questionnaire on Patient Safety at Your Hospital*<sup>1</sup> (see in *appendix*), which has previously been used in other countries. The survey was conducted in Romania in 12 hospitals from different districts: Arad, Braila, Bucharest, Cluj, Constanta, Dambovita, Iasi, Prahova, Suceava, Teleorman, and Timis si Valcea. Hospitals differ in size, type and pathology treated. However, these characteristics are secondary in importance. We believe that views of professional categories about patient safety are not so much related with the specialization or the size of the hospital.

*Method of distribution* In the context of the EU-funded project, on the occasion of regional trainings for clinical teams, the questionnaire was distributed to 12 hospitals in different districts and circulated during June and July 2006. By September, 100 completed questionnaires had been returned.

*Target group* Senior and junior medical and non-medical staff working in hospitals.

For the purpose of comparison, respondents' views from four other countries (Australia, Norway, Sweden and Singapore) on general aspects about patient safety were taken into consideration<sup>2</sup>.

### Description of questionnaire

The questionnaire is made of four parts. Parts I and II refer to general and specific views on patient safety, part III refers to solutions to improve patient safety, and part IV shows sociodemographic characteristics of the respondents.

Part I (structured in four items) shows an overview of patient safety, while part II is organized in 11 sections (in total 55 items) addressing specific views on: generating ideas, communication between junior and senior staff, communication between clinicians in different professions, management of information systems, access to information, responsibility and accountability, continuous learning, team work, consumer involvement, effective work meetings and leadership. Both parts have scaled questions with five standardized answer boxes. Respondents were asked to tick one of the five boxes, where box 1 corresponds to "strongly agree" and box 5 corresponds to "strongly disagree." Consequently, a lower score means more agreement with the statements.

Part III of the questionnaire contains three open-ended questions, asking for comments or suggestions on improving patient safety at the hospital.

Part IV shows characteristics of respondents, giving an image on the staff type.

The questionnaire does not measure patient safety in hospitals, but tries to show how professionals in healthcare view the problem. Analysis is made for Romanian respondents; some comparisons with views of professionals in other countries are provided, mainly with regard to the general perception on the importance of patient safety.

Answers given were analyzed by the degree of agreement of overall respondents, and also per professional categories (doctors vs. nurses, clinical vs. non-clinical staff) or senior versus junior staff. Results for these dimensions are presented whenever important differences in opinions were noticed.

## Results

The questionnaires were distributed in the 12 hospitals to clinical and non-clinical staff, including senior and junior positions for both categories. A total of 100 completed questionnaires was returned to the project team.

The structure of the respondents per professional category and senior or junior staff is shown in Table 1.

<sup>&</sup>lt;sup>1</sup> The questionnaire was developed by Prof. Don Hindle, University of South Wales Australia, project coordinator, EuropeAid Project no.RO 2003/005–551.04.08 Improvement of Accountability and Transparency in the Allocation and Use of Healthcare Resources through the Implementation of an Informatics Monitoring System for Hospital Morbidity and a Hospital Case Based Financing System," started in November 2005 and ended in April 2007.

<sup>&</sup>lt;sup>2</sup> Answers to the questionnaire from other countries (Norway, Sweden, Singapore and Australia) were made available by the PHARE project coordinator in Romania, Prof. Don Hindle.

 Table 1
 Staff type-Romania

	Doctors	Nurses	Other clinical	Non-clinical
Junior	15	25	8	10
Senior	10	9	4	9

Five respondents out of 100 did not give any information about their professional background.

Distribution of staff per gender and age shows that about 75% of the respondents are female and 64% of them are under or 45 years of age. From 100 respondents, 6% did not give any information about their gender, and 10% did not indicate their age.

Distribution per working department shows that about 25% of respondents work in obstetric-gynecology, 20% in medical departments, 15% in administration, 13% in surgical departments, and the rest in other types of clinical departments. About 11% of respondents did not give any information on their working department.

For comparison with other countries, the staff structure per professional category for the other four countries is shown in Table 2. Only some comparisons of the overall views of respondents were made between countries.

The questionnaire starts with general questions (part I), aiming to screen the problem. It continues with specific questions (part II) organized in 11 sections. The items in each section are scaled, standardized questions. For some sections comparison is made for average scores between countries, on the scale from 1.0 to 5.0. Closer to 1.0 means a stronger agreement with the statements; closer to 5.0 means stronger disagreement with the statements.

Part I, **Overall Views on Patient Safety**, asks the respondents about the importance of the problem. Questions are scaled, reflecting more importance to the patient safety issue as respondents go from item 1 to item 4. Answers for each item were translated into scores from 1 to 5, reflecting the views ranging from strong agreement (1) to strong disagreement (5).

Results for part I of the questionnaire are presented in Fig. 1. Overall, they show that most of the respondents from all countries tend to agree or strongly agree that patient safety is important, and it can be improved. They also agree there is need to begin immediately to find ways for improvement. The most to agree with the latter are respondents from Australia.

Averages and standard deviations of scores were computed per item, per country, including all respondents. They are presented in Table 3.

In Romania, 34.7% of respondents strongly agree and 24.8% agree that healthcare is more complicated than most other industries and some errors are unavoidable (item 1); only nine respondents disagree with the statement. Per

professional categories, doctors (68%) tend to agree the most with the statement, while 61.1% of the nurses share the same view; on the contrary, only 47.4% of the non-clinical staff shares this view.

However, 80.2% of respondents strongly agree or agree with the statements that a more concerted effort (item 3) and immediate actions are needed to improve patient safety (item 4). Moreover, 62.4% of respondents strongly agree or agree that improvements can be made even within the existent constraint of limited resources (item 2).

#### Specific views on patient safety (part II)

Organizational culture with regard to patient safety is especially reflected though respondents' views on specific questions in this part of the questionnaire. The 11 sections of part II show the degree of involvement and participation of the respondent in the decision-making processes in daily activity, such as: capacity of promoting and generating new ideas, effective communication between clinical professionals and between junior and senior staff, sharing of information and documentation, sharing of responsibility and accountability, continuous learning, team work, effective meetings and sharing of the leadership task. Findings for each section are described below.

## Generating ideas

In this section respondents are confronted with the idea that healthcare is a complex environment and there is need for a continuous search for opportunities to improve. Questions ask about the willingness of staff to accept responsibility for improvement, about how ideas are welcomed and encouraged, and how suggestions are received by the senior staff. Given answers show that:

 Although the majority of respondents agree, 35% of respondents disagree or strongly disagree that ideas for change are welcomed and that they always receive positive feedback. Interestingly, as can be seen in Fig. 2, doctors disagree even more than nurses with the statement, and the same applies for the non-clinical staff.

Table 2         Staff type-comparison of countrie
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	Doctors	Nurses	Other clinical or	Total
	Doctors	INUISES	non-clinical	Total
Australia	14	65	52	131
Norway	1	20	21	42
Sweden	0	9	13	22
Singapore	6	92	26	124





- Of the respondents, 38% do not agree that new or junior staff are especially encouraged and welcomed to express their point of view; moreover, 59% of respondents strongly agree or agree that junior staff wait for ideas to be introduced by senior staff, believing that they should just follow orders. Opinions per staff type are shown in Fig. 3.
- Concerning the usual ways for generating ideas, 39% of doctors and 25% of nurses do not agree that they have clear rules to ensure that new ideas are taken into consideration, nor do they agree that confidential methods are in place to give an opportunity for ideas to be publicly heard. The situation seems to be even more difficult for non-clinical staff; 53% do not agree with the existence of clear rules for discussing new ideas.

Table 3	Scores	regarding	overall	views	on	patient	safety
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	Questions	Mean score	St dev
Romania	Item 1	2.4	1.3
	Item 2	2.1	1.3
	Item 3	1.7	1.0
	Item 4	1.7	0.9
Australia	Item 1	2.7	1.2
	Item 2	1.6	0.8
	Item 3	1.4	0.7
	Item 4	1.5	0.7
Norway	Item 1	2.6	1.1
	Item 2	2.0	1.4
	Item 3	1.8	1.4
	Item 4	1.6	0.8
Sweden	Item 1	2.4	1.0
	Item 2	2.1	1.2
	Item 3	1.8	0.9
	Item 4	1.9	0.9
Singapore	Item 1	2.4	1.1
	Item 2	2.2	1.0
	Item 3	1.7	0.9
	Item 4	1.8	0.9

Communication between junior and senior staff

This section goes deeper into exploring the communication between senior and junior staff.

- Junior and senior staff across professions believes that many opportunities are given to juniors to initiate discussions and talk about their problems to the senior staff. Sixty-four percent of doctors strongly agree or agree that senior staff often initiate informal discussions and pay visits to ask for juniors' views. On the other hand, only 44% of the nurses share this view. Results are shown in Fig. 4.
- Interestingly, from those who agree, most are junior staff. Although there seems to be a good communication between senior and junior staff, it appears that half of the respondents do not agree that mentoring is well designed and multidisciplinary. The least to agree are the doctors (only 32%), followed by nurses (47%).

Communication between clinicians in different professions

Teamwork and effective communication are essential to provide good patient care. This requires sharing of information, through documentation of clinical processes and regular meetings of the clinical team. Findings show that:

- Overall, respondents agree that documentation is shared among clinical professions; however, as shown in Fig. 5, only 46% of doctors and 50% of nurses agree or strongly agree that care paths are currently used to support patient care.
- Given answers show that concerning the usual way of conduct of multidisciplinary team meetings based on clear rules, only 39% of doctors and 50% of nurses agree or strongly agree with this. While other clinical staff believe rules are clear enough, among doctors,



Fig. 2 Acceptance of new ideas

nurses and especially non-clinical staff, it appears that there is room for improvement.

Management of information systems

All clinical staff should view clinical documentation as an essential definition of what they need to know.

- Results show that 75% of respondents agree or strongly agree that a review of care documentation by the entire multidisciplinary team is essential. However, 64% of doctors and 50% of nurses complain that there are too many routine statistics to collect, and they don't know the purpose of collecting some of them.
- Very few respondents (25%) agree that pathways are firstly used to define normal care and then further used to record and deal with variances in practice. This reconfirms the low utilization of care pathways in Romanian hospitals.

#### Responsibility and accountability

Willingness to share responsibility for patient care is a precondition for patient safety. This includes shared responsibilities for identifying problems, defining solutions and taking corrective actions. Also, performance should be reported as feedback to all parties who have a right to know. The majority of respondents agree that problems and responsibilities are shared by everyone, and they are willing

Most staff wait for ideas to be introduced by senior staff. They believe they should just follow orders



Senior staff often take the initiative in having informal discussions with junior staff



to solve them. However, there are differences in opinions among professional categories:

- 72% of the nurses and 92% of other clinical staff agree or strongly agree with sharing responsibility for every problem and willingness to fix it, while only 54% of doctors share this opinion.
- Sixty-three percent of all respondents agree to openly admit their mistakes; 90% of respondents see it as a sign of strength rather than weakness; nevertheless, 36% of doctors and 31% of nurses agree that there is time spent on blaming individuals for their mistakes.

These results come to support the findings on cultural behavior from literature described in the background. Basically, inasmuch as they believe in the importance and benefits of admitting mistakes, there are some cultural barriers impeding them from actually doing so. In order to deal with medical errors, one has first to admit them and be able to see them as opportunities from which to learn.

The idea is further explored in the next section, where reviews, evaluation, and open discussions about mistakes are part of the *continuous learning* process. Results show that:

- 66% of all respondents believe that monitoring and evaluating are part of good clinical practice, and they do it regardless of formal protocols. Answers given could be an explanation for why some of them believe that they make very few mistakes.
- Interestingly, as shown in Fig. 6, 47% of the nurses believe that other parties are responsible for their

Multidisciplinary care paths are widely used, and are becoming the normal approach



Fig. 5 Use of care pathways to support communication of the clinical team



Fig. 6 Views on responsibility for mistakes

problems, while only 29% of the doctors share this opinion. This could mean either doctors are taking more individual responsibility for their problems, or, simply, that nurses have a different perception of causes of the problems and tend to look for causes outside the clinical team.

Staff attitudes at work are further explored in the section discussing views on *teamwork*. The term is described as a commitment to share ideas, information, responsibilities and accountability. Results show that:

more than 35% of respondents do not agree that patients are considered part of the team while receiving care (Fig. 7); some 31% of the nurses and even more doctors (43%) share this view. In about the same proportions, they do not agree that patients are seen as our patients" rather than my patient."

These findings are linked with the results of the next section, focusing on *consumer involvement*. They reveal that:

- only some 21% of doctors and 24% of nurses agree that patients and families are normally given well-written materials to read without having to ask;
- in general, they do not use to ask patients for suggestions on how to improve the informative materials given to them.

All of the findings related to consumer involvement indicate poor communication with patients. This is a main indicator for lack of a patient-centered approach, essential for good quality care, and a culture promoting patient safety.

The following sections, *effective meetings* and *leader-ship* underline the importance of teamwork management through professional meetings and that of shared leadership at all levels of the hospital. Results show that:

 There is more agreement among nurses (35%) about specific rules to conduct their meetings than among doctors (14%); the same opinion is shared by 50% of

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other clinical staff. These results may be an indication of the lack of a multidisciplinary approach to work meetings.

• Fifty-six percent of the nurses agree to have shared leadership at all levels of the organization, while only 36% of doctors share this view. Actually, it appears that the aim of ensuring shared leadership is the least desired among doctors.

The last section of part II of the questionnaires asks respondents for their *views about stress*. The section aims to reveal to which extent the level of stress influences the daily activity of the staff. Answers given show that:

- 41% of respondents agree that pressure at work is almost unbearable and that often they lose sleep thinking about everything they have to do. The most affected by strain at work are the nurses (50%) and nonclinical staff (47%), while 29% of doctors only appear to agree. This may suggest some underemployment problems for some staff categories, but also some pressure from doctors' leadership at work.
- While 46% of doctors and 44% of nurses believe they are very busy but very productive at the same time, the majority of non-clinical staff (74%) and other clinical staff (67%) believe they are overwhelmed by duties and would be much more productive if not so busy. These results are consistent with the capacity of the staff to plan ahead at work: the non-clinical staff has difficulties with planning tasks in advance, while doctors and nurses are more capable of doing so.
- Seventy-eight percent of nurses agree or strongly agree that they are effective managers of their own time at work, followed by other clinical staff with 75% and doctors with 64%. The leadership of doctors is confirmed by their belief in having the capacity to manage staff time at work, as shown in Fig. 8.

Part III of the questionnaire, with open-ended questions, gives an opportunity to respondents to express their suggestions on how to improve patient safety. Interestingly, most given answers suggest the increase of hospital funding, as this is perceived as a main cause of poor





Fig. 8 Management of others' time at work

patient safety. They believe that more resources allocated to equipment and medication would improve clinical performance, and therefore patient satisfaction. However, they recognize the need for more training and education of hospital staff.

#### Discussion

A first research hypothesis was that Romania is not different from other countries regarding the perception about patient safety, and to some extent this is due to similar organizational cultures specific to healthcare.

Given answers to the section with overall views on patient safety showed that Romanian professionals are concerned about it, and they are willing to improve the situation. Some cultural barriers seem to impede them to do so. Although they strongly believe some medical errors are unavoidable and they should openly discuss them, in reality that does not happen. The prevailing name-and-blame culture is still in place.

Change in the organization's processes is theoretically praised and welcomed by all categories of professionals, but in practice methods to enhance change are not encouraged. Doctors do not encourage shared leadership, and the communication with other professionals is not formally established through clear rules; also, among senior and junior doctors mentoring is not well established or multidisciplinary. These findings may indicate that doctors do not consider other staff's work as being as important as theirs. Such an attitude is not uncommon, since the literature shows (Stein et al. 1990) that nurses have been perceived as merely assistants to doctors till the late 1960s. But they discretely moved from that status by influencing decision-making by observations, experience and information in a way that did not challenge doctors' positions. By the 1990s, they achieved a more independent status in the medical profession (Krogstad et al. 2004).

On the other hand, doctors tend to take more responsibility for the others' work, and they do not complain as much about pressure at work. This may be considered normal, given that they are at the top of the hierarchy and are used with being assisted. However, they tend to see only the clinical side of the patients' experience, while nurses have a more general approach. The majority of nurses take responsibility for problems and try to fix them; they are more interested in monitoring and evaluating processes, in documenting clinical work and in using care pathways. Also, they are willing to improve communication with other staff. Although overwhelmed by work, they seem very capable of managing their own time.

Further, communication of both categories with the patient seems poor. Most nurses and doctors confess that they actually do not consider patients part of the team. Also, they do not think to ask patients about how to improve the informative materials given to them.

More conclusions were reached by exploring the second hypothesis of research. This was that in the context of similar organizational cultures, patient safety is perceived differently by different categories of healthcare professionals. In fact, overall nurses tend to agree more than doctors about having some communication problems, problems in the way new ideas are generated and accepted, on how the team works, or related to patient involvement. Among respondents it could be noticed that the problems related to patient safety are better understood and perceived among nurses than among doctors.

These findings are a confirmation of the fact that nurses are more team workers than doctors, and they prefer to work in a well organized environment, with clear rules and tasks, having well documented processes and established leadership in the organization. This appears to be consistent with findings from other countries. For example, a study performed in four hospitals in the UK and in two hospitals in Australia (Degeling et al. 2001) concluded that doctors and nurses perceive the hospital work differently. Doctors tend to act more individualistically in their clinical work, while nurses have more of a team-work approach in their profession.

Also, Krogstad et al. (2004) shows differences between these professional categories, concluding that "doctors professionally and self-confidently maintain their traditional focus on diagnosis and medical treatment," while for nurses cooperation means "not only communicating medical observations or administering medication, but also being appreciated for their independent contributions to the healing process, e.g., by mapping and understanding the patients' complete situation and set of needs and mobilizing his/her coping strength.[...] Nurses' satisfaction depends more strongly than of the doctors on their general job satisfaction."

In the end, when asked about ways to improve patient safety, respondents linked all of the problems with the lack of resources, considering that if financing increased most of the problems would be solved. This leads to a straightforward conclusion: as long as the nature of the problem of poor patient safety is not understood among professionals, more resources will not solve the problem. Teamwork in practical terms, clinical processes organized around care pathways and real patient involvement do not necessarily require more resources, but certainly require a cultural change in the organization. And this is the way to change.

Results of this study reveal aspects of organizational culture already known, but yet not measured. They should be regarded as a starting point for a more extensive study in order to say that the results reflect the organizational culture in Romanian hospitals. However, solutions to the system's problems will come from the cultural change discussed in this study.

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**Conflict of interest statement** The authors disclose any relevant associations that might pose a conflict of interest.

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