



# Requirements for a Game-Based Approach to Strengthen Leadership in Health Care

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**Abstract.** The growing technological progress and the concomitant complexity in professional life poses new challenges for executives. These complexities are particularly noticeable in the health care sector at the middle management level on a daily basis. The executives are in an intermediate position: Both care work and managerial functions must be matched up sophisticatedly to meet and satisfy all target groups. Many decisions (especially for questions that arise for the first time or those that are unique) are commonly made based on intuition or trial-and-error principle. Usually, the possible consequences of alternative decisions cannot be reliably determined in advance. This paper addresses these issues and describes methods for dealing with them. Therefore, initial results of a respective analysis are going to be introduced.

**Keywords:** Leadership · Health care · Virtual learning environment

## 1 Introduction

In the context of multi-layered patient and employee requirements as well as political and economic demands, leaders in the health care sector are more and more frequently acting at the complex interface of conflicting objectives such as ensuring high-quality patient care, promoting employee satisfaction and motivation as well as fulfilling efficiency needs and political regulations. In coping with the resulting challenges, managers are increasingly moving to the center of corresponding requirements for decision-making and thus influencing the degree of goal achievement in a relevant way through leadership actions within the scope of their responsibility. Although their decision-making is therefore of central importance for the success of an organization, in practice it is usually based on experience and intuition as well as personal and social competencies developed over the course of their biographies, what especially applies to issues with strong

corporate cultural or organizational links. Ultimately, this means that consequences of different decision alternatives cannot be reliably determined in advance.

In comparison to that, various technology-based systems such as monitoring, simulation and support systems have increasingly established to accompany product- and process-related decision-making processes in the industrial context throughout the last decade. Large proportions of a manager's decision portfolio in the industrial sector can thus be covered by available solutions, whilst systems for addressing specific cultural and organizational issues in the context of health care remain to be developed.

Therefore, the aim of the LUTZ<sup>1</sup> research project is to utilize the opportunities of appropriate solutions to support decision-making in a new perspective by developing a system for accompanying culture- and organization-related events, which will support leaders in the health care sector in complex decision-making processes in the context of leadership, corporate culture and organization. For the realization of that, the project addresses the following questions:

- What specifics can be used to characterize leadership work in the health care sector?
- Which challenging decision-making situations can be identified in the context of leadership, corporate culture and organization?
- How can corporate cultural and organizational effects of different decisions and decision-making processes be represented?

Within the scope of the overall objective, the present paper pursues two goals: On the one hand, the paper intends to give a rough overview of the methodological approach used in the analysis and requirement phase of the LUTZ project. On the other hand, two methods are then emphasized to illustrate the initial results and present them for discussion.

The paper aims to present first results from a literature research regarding the topic "attributes of leadership in health care". Furthermore, the paper presents initial results of one part of the qualitative study<sup>2</sup>. Herein, the focus is on the presentation of first results from the evaluation phase of an interview that was conducted on the topic of "leadership", and targeted to get an overview of all relevant information of leadership tasks, challenges and areas of tension. Based on the results of the literature review and the interview, first assignments of possible learning scenarios are to be made, which could be discounted in a learning environment and therefore be made available to managers for qualification in their management activities. Overall, the paper will focus on the following questions:

- What are the characteristics of leadership in health care?
- Which characteristics are to be considered for the development of the learning environment?

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<sup>2</sup> With regard to the duration of the project, the paper does not claim to present all results in the complete form. From these aspects the research questions were formed, which are central in the LUTZ project and especially for the interview evaluation.

The process of the initial analysis that is considered in the LUTZ project will be discussed below. The first results from the literature review and the interview will then be presented. The paper ends with a comprehensive discussion of the respective results with regard to the two focused questions of the paper as well as a possible design of learning scenarios.

## 2 Method

The main objective of the first phase of the project LUTZ is to get an overview of the health care sector in Germany as well as the management styles in middle management, while different methods are applied. On the one hand, there is a literature research of the topic of leadership behavior and styles in the German health care sector. On the other hand, a qualitative and quantitative study is carried out in order to complement and enhance the theoretical and scientific results.

The aim of the literature review is to gather the existing state of research on the central research question of “What is ideal leadership in health care?”. The research aims to verify the research needs and to get to know the leadership culture as well as the particularities of organization and structure of the German health care system. In addition, the review will also serve to highlight the needs within the health care sector in terms of support for managerial qualification. Last but not least, the results of the literature review constitute an important basis for the design of the concrete learning scenarios for the learning environment which is developed in the research project LUTZ.

As part of the qualitative study, several guided interviews were carried out with health care managers. The focus was on interviews with nursing service managers of a private nursing service manager in Saxony-Anhalt. The aim of the interviews was to develop a feeling for tasks that managers in the health care sector have to deal with, how they work on these tasks as well as what requirements to consider. The previous examination with the research topic revealed that decision-making processes are always part of leadership. Decision-making is an individual complex process which is based on experiences that have already been made, on the basis of which situations are perceived, evaluated and reflected upon differently. Therefore, the study focuses on questions about managerial tasks and also includes the individual and manifold decision-making situations.

In addition, further interviews were conducted with executives from other institutions and areas of health care, such as dentistry or general medicine. This approach must be justified by the fact that the previously identified management tasks and decision-making situations as well as the findings on leadership and decision-making behavior, the framework conditions, and the challenges of one health care sector should be compared with other results and expanded accordingly. Furthermore, interviews are performed with the upper management level in order to become acquainted with and understand the organizational culture. Leadership and corporate culture are closely related [1].

All interviews are evaluated using the method of qualitative content analysis by the psychologist and sociologist Philipp Mayring. After the transcription of the interviews, the evaluation was carried out taking into account concrete research questions on the topic of leadership such as “Which management tasks characterize the health care sector?” and “Which challenges exist for the managers in the health care sector?”. At the beginning

of the evaluation, the interviews were divided into sections of meaning, according to the research questions. The sequences were paraphrased then, before categories were derived. These categories are discussed and tested in the evaluation team with the aim of designing a common category system.

On the one hand, this paper will outline initial results from the literature review, which refers in particular to the question of which features leadership in German health care has. On the other hand, the first findings from the qualitative study of the project will be presented. This is a first, exemplary category system, which was elaborated by means of the content analysis of an interview with a nursing service manager. In this interview, the focus was placed on the topic of leadership. The following categories will be expanded and concretized in the further course of the project until a uniform category system exists, which is considered to be saturated.

### 3 Results

Within a systematic literature search using the databases of PubMed, PubPsych, LIVIVO, EconBiz and SCOPUS, a variety of several hundred publications was to be found under the application of an intentionally broad defined search string representing the core elements of the matter of interest. Papers had to be published from 2016 until present, be written in English or German language and full texts available. After a content-guided inclusion-exclusion-procedure, taking into account titles as well as abstracts and full texts, a selection of 37 publications referring to leadership issues in health care in either explicit or implicit form got integrated in the following review, the intention of which is to provide an initial overview of the appearance of leadership in health care.

In a meta-reflection, it is to be stated that issues of leadership in health care are broadly discussed in international literature with special consideration in territories such as the United States, Europe and Germany, the latter of which was of special interest for the review on hand. Thereby, the publications reviewed allowed statements as well as conclusions along the following categories that were to be identified in order to describe the phenomenon of leadership in health care: understanding, importance, tasks, competence and qualification. A synthesis of selected findings of each category is presented below.

*Understanding of Leadership.* Within the scope of the selected contributions, management and leadership are described as two disparate concepts. While management is described to primarily focus on tasks, leadership is characterized to predominantly concentrate on people [2]. In other perspectives, integrated understandings are to be found, conceptualizing leadership as ability to initiate influence, innovation and engagement towards reasonable actions or goals in order to foster desired outcomes [3]. Thereby, leadership is also being described as not necessarily being tied to specific roles or hierarchies, but to embody competences that can be represented by various staff members who bring initiatives forward, shape change and work together [4]. The extent to which a leader does actively promote encouraging work climate, provide orientation and clarity and engage in achieving common goals is thereby described as attribute of good quality leadership [5].

*Importance of Leadership.* Evidence on the importance of leadership on manifold outcomes is to be found across various health care professions such as nurses and physicians as well as diverse health care settings like nursing homes and hospitals. Within this, it becomes apparent that not only does leadership influence goal achievement in aspects as patient and employee well-being as well as terms of politics and economics, but also does so in both direct and indirect ways. Additionally, the responsibility of leaders in the health care sector covers a broad spectrum of professional subjects including health care-related aspects as well as matters of work design. Thereby, amongst the most highlighted issues in the scope of leadership liabilities, patient-related objectives such as health care quality and outcome [6], employee-related aspects like promoting well-being and commitment [7] as well as work design-related matters as process management and safety building [8, 9] were to be derived. Additionally, single specifications of leadership objectives, namely optimizing treatment quality and cost efficiency [10, 11] were to be identified according to this.

*Leadership Tasks.* Closely associated with this, a broad range of leadership tasks was to be found within the contributions, documenting different horizons of operational and strategic integration as well as multi-faceted dimensions amongst routines of health care leaders. Attempting to cluster the according activities, the following emphases can be summarized: In terms of management along upper hierarchy levels, main duties include strategy building, budget accountability, implementation of laws and regulations applicable to the facility, personnel, patient and process as well as quality, error and incident management [11, 12]. In respects of leadership along varying hierarchy levels, central tasks imply encouraging social support [13], empowering staff in the interest of good quality care [2], fostering organizational learning [8], shaping development and change [8] as well as taking care of oneself and others [14]. Further assignments thereby finally include fostering justice [6], promoting trust [15] and building common values.

*Leadership Competences.* According to the variety of tasks, a corresponding rich spectrum of competence needs could be identified to comply with leadership requirements in health care. Along both, nursing and medical leaders, competence profiles encompass several dimensions including professional, personal, social, procedural, methodical as well as reflexive perspectives [11, 14, 16], the scope of which thereby vividly maps the different ranges affected by health care leaders. Namely, these can be described as representing micro-, meso- and macro-level perspectives, accordingly addressing the leader itself as well as cooperation within and in between teams, intra- and inter-professional collaboration, health care organizations, stakeholder networks and health care system.

*Leadership Qualification.* In contrast to that, studies across various settings have consistently reported that even though the necessity of gaining leadership competences has been recognized and the extent of leadership-associated responsibilities increases over the course of nursing and medical professionalization, a systematic consideration of sound leadership qualification within primary health care education remains an open issue to date. Subsequently, competence acquisition and role development occur spontaneously through confrontation with according events, implicitly during performance in practice and through adoption from superiors and role models without explicit reflection [11, 17, 18, 19].

Following these essential findings of the review, the results of one of the interviews with a nursing service manager are presented below. This is, as already mentioned, a first category system that must not be understood as saturated and solid yet. Despite its exemplary nature, this category system makes it possible to make first derivations for the design of learning scenarios.

The presented interview was conducted with a nursing service manager that has been working in the company for several years and holding responsibility for an own team since. The interview reveals the complexity of the daily work of nursing managers. In addition to the formation of fixed routines designed to create a structure, as specific management tasks such as routing, billing or budget planning are always repeated at fixed times, the head of care must always be able to deal with unpredictable tasks. No day is like the other, so a clear head, spontaneous solutions (not solution) and complexity management are needed. It also became clear that the nursing manager is not only a manager but still needs to be a specialist. For example, it is characterized by emergency availability, because, as a last resort, it feeds into care when there is a shortage of staff: *“I don’t work in shift work anymore, except for exceptions”*. In addition, it needs a high level of expertise to act as an adviser to staff, patients and relatives. It could also be identified that the manager is in a state of conflict with different tensions between parties. This tension is attributable to its own person, the staff, patients, relatives and management. The head of the care service practices self-care and has, for example, *“learnt to say no”*, as well as to apply self-leadership and above all to ensure that the workforce is well served.“

If the atmosphere in the team is perceived as good, such as when the manager constantly has *“an open ear”* while listening to problems and valuing the staff, the internal processes and the quality of work is right, which was reported to be very important. As a result, the manager is encouraged to behave and build trust in staff for care. Furthermore, in order to be able to assume responsibilities, it is necessary to know the strengths and weaknesses of the personnel, as well as the individual personalities of the staff because *“everyone needs something else to be happy.”* Therefore, it is also important that the manager takes into account the satisfaction of patients, relatives and management.

The organizational structure provides that in addition to the role as care and administrative officer, a nursing service manager also has to act as adviser for the staff, the patients and the relatives. The manager has to know the care services and to discuss about these with the families concerning to their relatives to be cared for. Thus, in order to carry out its tasks, the manager must develop not only social and technical skills, but also a certain level of numerical and management skills.

The following category system was derived as a summary from the results of the content analysis of the previously presented interview. The categories were established inductively. Table 1 shows the categories, their respective definitions as well as illustrating anchor examples that are borrowed from the meaning of original quotations and exemplify the content of the categories in natural language.

The discussion of the results found follows in the next section.

**Table 1.** Category System

Category	Definition	Anchor example
Solicitousness	Text indicating caring (pleasant, protective) behavior	<i>I always try to make sure that the patients are doing well - that they feel valued and involved</i>
To get to know the staff	To get to know the staff with their strengths, weaknesses and characteristics	<i>Every employee has individual needs. A care manager should know these needs and understand how they affect an employee's reaction in certain situations</i>
Self-care	The manager takes care of himself/herself	<i>It is important for me to take care for myself and to listen to my own needs and limits</i>
Employees wellbeing	The staff members should feel good	<i>We always try to do a little something together every once in a while, be it having lunch together or celebrating birthdays with an afternoon of games – the main thing is that the team is doing well</i>
Patient welfare	The patients should feel good	<i>It is also important to me that our residents feel comfortable with us</i>
Relatives welfare	The relatives should feel good	<i>I try to take time to listen to the concerns of the family members of our residents and to provide them with whatever advice I can to support their care for their loved ones</i>
Inclusion of the staff	Passages that point out that the manager integrates their employees into processes	<i>When it comes to decisions regarding the way we organize our work, I always try to involve my team. If you want a decision to be supported by everyone, I think it is a necessity to do it like that</i>

(continued)

**Table 1.** (continued)

Category	Definition	Anchor example
Respect	Passages pointing to each other's attention	<i>Sometimes I am just like 'What a great team!'. The way my colleagues take care for our residents but also keep everything running in the background is remarkable and truly deserves my fullest respect</i>
Honesty	Passages suggesting that one treats one another sincerely and avoids lies	<i>Honesty is key. No matter whether it concerns praise or criticism</i>
Administrative office	Tasks falling within the administrative area	<i>Some days I spend almost entirely at my desk, answering e-mails and making phone calls</i>
Personnel management	Tasks related to staff and, in particular, operational planning	<i>Who takes care of which residents and when is something I usually coordinate together with my deputy</i>
Dealing with unpredictable situations	There are events during the day that arrive unplanned and surprisingly	<i>Some things you simply just cannot predict. Like sick notes, for example, or emergencies. You just have to deal with it</i>
Tracing the daily routine of the qualified nurses	The manager participates in the daily life of skilled workers	<i>I think it is important to keep a sense of what occupies the team in their daily work and to stay involved, whether it is through participating in shift changes or a quick little chat in the hallway</i>
Routines	There are fixed processes in the day-to-day work that structure it	<i>Some of my tasks are defined by certain specifications, as are some sequences in our daily routine</i>
Mediation between requests	Actions of the executive to achieve a balance of interests	<i>Sometimes, interests diverge quite a bit so that you have to put quite some effort into it to reconcile them</i>
Emergency availability	The manager jumps in as a specialist in an emergency case	<i>I don't normally take on nursing tasks anymore, but when it hits the fan, sure, I step in</i>

(continued)



**Table 1.** (continued)

Category	Definition	Anchor example
Advisory activity	The executive informs and makes recommendations	<i>I get back to the relatives of our residents whenever possible – especially when there is news from our facility or when I came upon a helpful advice</i>
Quality management	The manager controls the quality of the work and establishment	<i>I am aware of my responsibility to both set the standards for what we aim to achieve in care as well as to make my employees fit to provide according high quality work</i>
Quick and well-founded finding of solutions	Passages suggesting that solutions must be found spontaneously	<i>Our work also always holds the unexpected. You must embrace that – and remain open to spontaneity</i>

## 4 Discussion

In order to approach the answer to the research questions and thus to contribute to the further development of the overall project, the following section aims to put the presented findings into perspective as well as to derive according conclusions.

Within the scoping review, a set of five associated categories delivering information on understanding, importance, tasks, competences and qualification of leadership has been developed, referring to which a summary of the inherent key implications is going to be introduced below.

*Understanding of Leadership.* Regarding the understanding of leadership, different approaches of conceptualization became apparent, most notably represented in a concise distinction of management and leadership on the one hand, as well as integrated perspectives on the other hand. To what extent these understandings are determined by differing working contexts and varying processes of professional socialization remains to be examined in further research, which also applies to the question of underlying interpretations and metaphors of the nature of leadership.

*Importance of Leadership.* The far-reaching significance of leadership in the health care sector came up to be uncontested across varying health care services as well as health care professions. Given its both direct and indirect effects on patient- and employee-related concerns as well as economic and political issues, leadership thereby appeared to become effective on its own, e.g. in terms of social support, as well as in association with further variables, e.g. in terms of designing beneficial health care and working environments.

*Leadership Tasks.* Considering the manifold spectrum of leadership tasks in health care, an essential finding pertained the hybrid involvement of health care leaders in both the nursing respectively medical as well as managerial system. Additionally, it was to be revealed that the relationship of health care- and leadership-related tasks is of reciprocal nature, unfolding that just as original health care-related tasks are part of leadership roles, embodying leadership roles is part of concise health care-related duties as well.

*Leadership Competences.* Representing the reciprocal connection of nursing respectively medical responsibilities and leadership issues in the provision of health care, the very same relation was to be found in the description of according competence needs, thereby including professional as well as extra-professional requirements.

Following the conclusions derived from the review, the results of the interview are being discussed and interpreted in the following section. Its relevance to the research question “What are the characteristics of leadership in health care?” is the focus.

*Leadership Qualification.* In strong contrast to the requirements associated with performing complex health care leadership tasks, the systematic integration of their development beginning in the early stages of nursing and medical education as well as in processes of lifelong work-related learning remains an open issue to date.

Aligned with the category system, it can be pointed out that leadership in health care is characterized by the need for managers to occupy multiple tasks. Especially with regard to care, it has become clear that in addition to human resources management, the care service also carries out management and sales activities, as well as emotional and rescue activities. On the other hand, the health care is characterized by the tension of a manager, composed of different groups of stakeholders: Himself/Herself (not Yourself), the patient, relatives, staff and management. On the one hand, other features include the fact that leadership in the health care also means being ready for technical use. The reason is that it is not only about carrying out specific management tasks such as human resources management, but also about being able to take on care activities. On the other hand, quick and informed solutions must always be found.

Until now, it has been mainly assumed that the manager was in a sandwich position between the upper management level and their staff, care recipients and relatives. The analysis of the interview has shown that the manager also has to carry out self-care and faces this challenge. It is therefore required not only to take into account the welfare of employees, patients and relatives and to meet the more economic management requirements. The executive must also always pay attention and try to attain a balance between all stakeholders. The balance between yourself, staff, patients and relatives is, among other things, necessary in order to assure a level of satisfaction and thus the quality of care and the facility. The findings reveal other research questions such as “What is the role of emotion in day-to-day management?”, “What is the role of self-care?”, and “How will and how can the balance be established between stakeholders?” that will be taken into account later during the evaluation.

Synoptically, a broad consistency was to be found within the present findings in terms of the issues raised, allowing for the conclusion of having come upon the following particularities of leadership in health care:

Leadership in the health care sector is characterized by a specific complexity and contradictoriness that can be traced back to a multitude of patient- and employee-related requirements, economic and political boundary conditions as well as the particularities of service provision in an area of health- and safety-relevant interactive work. Within this context, health care leaders operate in multiple fields of tension, within a variety of paradoxes and role conflicts unfolds (not unfold), such as those arising from the relationship between economic rationality and professional self-conception. In the scope of this, leaders are regularly required to cope with unstructured challenges in non-routine situations and hardly predictable outcomes and thereby to solve problems of a system they themselves are a part of which. Consequently, leaders in health care need skills that enable them to remain capable of acting in situations like these and to successfully deal with uncertainty.

Finally, these characteristics are to be highlighted as particularities of leadership in health care and thus to be considered in the development of a reasonable learning environment that intends to provide an effective approach to build sound competences for leading in health care.

To that effect, established requirements regarding the conception and design of stimulating learning environments need to be taken into account. Above all, these refer to providing learning scenarios that meet relevant demands in terms of content and context, striving for simulation-based approaches reflecting realistic situations and specific behaviors as well as addressing skills being interconnected in practice accordingly together.

In order to meet these requirements, a digital learning environment combining aspects of simulation, gaming and reflection is going to be developed and thereby striving for the overall goal to enable health care executives to put different decisional options to the test, experience their respective effects and hence strengthen their abilities to design successful decision-making processes in practice. Within a protected environment, they are going to be confronted with relevant learning scenarios allowing for transferable learning experiences.

For the design of the learning scenarios, it is necessary to depict the identified area of conflict. Not only staff members or patients must be satisfied with a decision of the manager. The managers themselves must also be taken into account with their personality and attitudes, meaning that their welfare should also be in the focus. In addition, the learning scenarios should take into account the diversity of responsibilities of the manager and thus allow the training of different leadership behaviors as part of a high work complexity. For example, it is not sufficient to depict human resources management tasks alone. Contrarily, it is necessary to include possible unforeseeable events in the scenarios that have the potential to disrupt routines, and require an immediate and profound troubleshooting. Consequently, just as important, when designing the learning scenarios, one must take into account, which tasks or problems the managers consider to be particularly challenging, which situations they can already deal with appropriately and where they are more likely to need awareness and training.

This paper did not put emphasis on decision-makings though. During the project progression, however, this subject is going to be considered equally intensively. This also includes the separation of existing models for determining effective leadership

styles (e.g. Blanchard & Hersey 1969) and dealing with the topic of leadership and decision-making processes (e.g. Vroom & Yetton 1973), which will be based on the learning scenarios.

## 5 Conclusion

The applied combination of a systematic literature research and a qualitative interview study enables a very detailed insight into the day-to-day management of leaders in the health care sector. While the review gives an overview of existing findings on the topic of leadership and creates an understanding of its complexity and variety, the personal and direct exchange with care providers offers deep insights into the multi-faceted and ambitious practice of leadership in health care. Given its meaning for multiple direct and indirect effects on patients, employees and health care organizations, its importance in balancing a variety of opposing interests of patients, employees, economics and politics as well as its inherence in diverse professional roles, an incontestable need to systematically support a comprehensive development of profound leadership competences in health care professionals became apparent and will thus be addressed by the project LUTZ.

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