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# Perception and knowledge of managerial roles: a validation of a questionnaire

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**Abstract.** The aim of the study was to evaluate the reliability of a questionnaire built on the perception of managerial roles and to identify the manager's knowledge in the field of management and leadership.

The questionnaire revealed very good properties in terms of reliability both concerning the perception of the importance of managerial roles (Cronbach alpha = 0.971) and personal abilities regarding managerial roles (Cronbach alpha = 0.950).

**Keywords:** perception, knowledge, managerial roles, validation, questionnaire

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## Background

Management studies have the common purpose of helping those who lead companies to meet human needs and work efficiency, in a scenario characterized by unexpected changes in economic and social conditions. Management is explained as "the set of managerial functions of a company", whether it is public or private [1]. It operates with human, financial and physical resources to achieve the organization's objectives carrying out planning, organizational, guidance and control functions. The field of study of the methods and choices allows the achievement of the objectives defined as part of a deliberate mission. The action of management is needed whenever two or more people interact to reach a common purpose in any type of organized activity, managers thus

become the decision-makers who establish the rules to be followed to carry out daily activities and to achieve the work objectives. Management can also be considered as the set of techniques, tools and particular skills through which management activities can be pursued. It makes use of communication, cognitive, management and planning skills to make decisions and achieve the aims of the organization. Health management is the ability to make decisions on scientific basis and modalities in order to lead the Health System towards the fulfilment of health needs, in compliance with financial constraints and according to criteria of effectiveness and efficiency [2].

Organizational changes arise from the need for new strategic directions, modifications, or transformations which may lead to differences in terms of organizational culture or structure. In view of these changes, managers need to acquire new knowledge and skills, furthermore they have to be aware of the differences between management and leadership and between their component elements [3].

As Henry Mintzberg [4] professor of "Management Studies" at McGill University suggests, if you were to ask a manager to describe his job, he will say that he is busy planning, organizing, directing and controlling. The manager has to deal with so many different sides in corporate life that you shouldn't be surprised if you can't find a relationship between what he says and what he actually does. By analyzing his work, ten roles strictly interconnected can be identified within companies, all of which can be traced back to three categories: the interpersonal sphere, the information sphere and the decision-making sphere. In the interpersonal sphere, the manager carries out a series of tasks of legal, social, leader nature that motivate and inspire his employees.

In the informative sphere, he plays the role of communicator and spokesperson for its unit. Finally, in the decision-making sphere his work is divided between the role of entrepreneur who initiates projects to bring about changes, of resource allocator and negotiator in important treaties. The figure of the health manager includes all members of the health organization placed in positions of authority and who are therefore responsible for the work of other people and the use of resources. Based on this definition, many professional figures of different levels are contemplated: from the general manager to the health and administrative director, from the head of nursing services to the heads of departments, laboratories and territorial units. In recent years, nurses have assumed managerial positions in both public and private health facilities [5]. In order to entirely fulfill their role, it is important that they are competent in both management and leadership [3,6]. When assuming a management function, nurses must have a clear view of changes in society and how they affect organizations. The traditional nursing administration model does not fit here anymore; people change and nurses are facing difficulties to assimilate this process. Changes happen, and if we lose the opportunity of transformation they offer, they knock us down [3].

The objective of this survey is to evaluate the perception of managerial roles and to identify the manager's knowledge in the field of management and leadership, as well as to establish a possible program of continuing education activities in medicine.

## Methods

A pilot study was carried out in June 2020, using a questionnaire made up of three sections:

- section A, represented by socio-demographic characteristics and consisting of 8 items, collects data relating to age, sex, profession, professional qualifications obtained, postgraduate qualifications, years of working age, the relevant care setting, the membership department and structure;
- section B, consisting of 10 items, represents the first part of the questionnaire where the perception of the importance of managerial roles is investigated;
- section C, also made up of 10 items, represents the second part of the questionnaire where the goal is to best describe personal abilities regarding managerial roles.

The Mintzberg's roles were taken into account were the following

### **Interpersonal sphere:**

- 1) representative, formal and official figure both inside and outside
- 2) leader who guides, trains and motivates employees
- 3) relations with colleagues from other units or companies

### **Information sphere:**

- 4) overseer who carefully monitors what is happening
- 5) disseminator who transmits essential information to the employees
- 6) spokesperson for his unit

### **Decision-making sphere:**

- 7) entrepreneur who seeks to improve his unit
- 8) manager of disturbing factors who deals with unexpected events
- 9) allocator of resources, in particular human resources, to activities / projects
- 10) negotiator with staff, clients, trade unions etc

### *Statistical analysis*

The answers in section B and C are structured according to a 5-point Likert scale (not important, slightly important, moderately important, important and very important).

Data input was made using an Excel file, and the statistical analysis was conducted using the software SPSS®, release 25.0. The internal consistency of the Italian scale was assessed using Cronbach's Alpha: each item is considered as a separate test, the average correlation between all items is estimated and a reliability estimation coefficient is derived from it. A descriptive analysis of all the variables examined will be conducted using absolute frequencies and percentages.

## Results

Forty healthcare professionals agreed to participate in the study (50% female; mean age 48.3  $\pm$ 12.7) (**Table 1**).

**Table 1 – Characteristics of the participants**

<b>Variable</b>	<b>N. (%) or mean (SD)</b>
<i>Gender</i>	
<b>Female</b>	20 (50)
<b>Male</b>	20 (50)
<i>Age</i>	
	48.3 (12.7)
<i>Health care workers</i>	
<b>Medical doctors</b>	25 (62.5)
<b>Nurses</b>	12 (30.0)
<b>Other HCW</b>	3 (7.5)
<i>Years of working age</i>	
	20.5 (4.9)
<i>Relevant care setting</i>	
<b>Medical</b>	16 (40)
<b>Surgical</b>	14 (35)
<b>Health direction</b>	10 (25)

As far as concerns the perception of the importance of managerial roles the analysis showed a standardized Cronbach's alpha equal to 0.971 (**Table 2**), corresponding to a very good reliability. No differences were found between gender and age groups.

**Table 2 – Statistical analysis of internal consistency of the questionnaire on the perception of the importance of managerial roles**

	Scale mean when the item was deleted	Scale variance when the item was deleted	Correct Item-total Correlation	Cronbach's Alpha when the item was deleted
<b>Item 1</b>	0,9479	0,063	0,878	0,941
<b>Item 2</b>	0,8914	0,077	0,912	0,918
<b>Item 3</b>	0,9583	0,056	0,881	0,947
<b>Item 4</b>	0,9221	0,081	0,991	0,912
<b>Item 5</b>	0,9781	0,069	0,915	0,958
<b>Item 6</b>	0,9544	0,085	0,920	0,962
<b>Item 7</b>	0,9845	0,072	0,889	0,970
<b>Item 8</b>	0,9337	0,083	0,922	0,925
<b>Item 9</b>	0,9218	0,045	0,954	0,956
<b>Item 10</b>	0,9716	0,056	0,899	0,970

On the other hand, concerning the perception of the personal abilities regarding managerial roles the analysis showed a standardized Cronbach's alpha equal to 0.950, corresponding to a very good reliability. Also for this part of the questionnaire, no differences were found between gender and age groups.

**Table 3 – Statistical analysis of internal consistency of the questionnaire on the perception of personal abilities regarding managerial roles**

	Scale mean when the item was deleted	Scale variance when the item was deleted	Correct Item-total Correlation	Cronbach's Alpha when the item was deleted
<b>Item 1</b>	0,9391	0,059	0,911	0,913
<b>Item 2</b>	0,9239	0,062	0,915	0,949
<b>Item 3</b>	0,9397	0,063	0,932	0,950
<b>Item 4</b>	0,9212	0,091	0,978	0,943
<b>Item 5</b>	0,9378	0,073	0,915	0,936
<b>Item 6</b>	0,9503	0,094	0,944	0,922
<b>Item 7</b>	0,9424	0,088	0,912	0,937
<b>Item 8</b>	0,9333	0,092	0,907	0,931
<b>Item 9</b>	0,9420	0,086	0,965	0,949
<b>Item 10</b>	0,9245	0,073	0,900	0,933

## Discussion

The aim of the study was to evaluate the reliability of a questionnaire built on the perception of managerial roles and to identify the manager's knowledge in the field of management and leadership.

The questionnaire revealed very good properties in terms of reliability both concerning the perception of the importance of managerial roles and personal abilities regarding managerial roles.

The importance to assess these issues is crucial for healthcare organizations, especially for taking under control malpractice and patient safety [7-8]. There is evidence that managerial competencies are positively associated to organizational performance [9]. On the other hand, as outlined by Vainieri and coll., managerial competencies are strongly linked to the information sharing process developed into the organizations.

A study carried out by Martens et al found lack of direction or training as the most common difficulty in healthcare settings. The need for having good managers to be better prepared to assume managerial roles is evident [10].

However, it is well recognized that there is lack of formal trainings about leadership abilities and other soft skills before being appointed as head of the department [11].

So, establishing a possible program of continuing education activities in medicine directed to senior and junior healthcare professionals, as well as the training on managerial issue directed towards undergraduate students, can be an important way for reinforcing leadership aptitude and approaches that are consistent with the desired organizational settings [12-13].

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