



Original Research

Head Ward Nurse Core Competencies: A Mixed-Method Study

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ABSTRACT

Introduction: Head ward nurse (HWN) is the one who, within a social and health care organization, plays a key role in the functioning of the ward, organizing work and that co-workers. This study aims to identify the HWN's core competencies, mapping and grading them according to the level considered most strategic and making them evident through the configuration of a conceptual map defined by the Balanced Scorecard (BSC) model.

Methods: This study was conducted in a mixed-method methodology, with a qualitative and quantitative exploratory sequential approach. In the quantitative part, by using the administration of surveys of consecutive convenience samples consisting in doctors, nurses, healthcare worker assistants and therapists staff from the surgical department of the Azienda Unità Sanitaria Locale (AUSL) of Piacenza Italy, 39% of the population of possible respondents for the qualitative part. Another sample of only nurses ward manager from surgery department of AUSL, which is the Local Health Authority of Piacenza, located in the Emilia-Romagna region of northern Italy. It was identified for the quantitative part, 100% of the population of possible respondents.

Results: The BSC makes it possible to identify, represent, and measure the performance of nurses especially with a view to enabling the attainment of skills deemed most significant, to be able to have a balance of them within the professional's portfolio, to ensure the presence of appropriate skills in care settings, and to be able to represent a graduation and eventual measurement of them.

Conclusions: The definition, mapping, graduation and representation of the core competencies of the HWN according to the BSC model, allow to make explicit the professional act in order to maintain or improve the exercised performances of the function as well as to lay the basis for their possible evaluation.

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1. INTRODUCTION

The Head Ward Nurse (HWN) plays a central role in the functioning of a healthcare organization's operating unit. They are responsible for organizing both their own work and that of their team members, ensuring the smooth delivery of care and services. The Ward Manager contributes to achieving corporate objectives by overseeing and coordinating activities across various domains, including organizational

management, clinical and nursing care, staff training, and research.

Over the years, his role, has undergone an important evolution in terms of responsibilities, skills and training, requiring a post-basic course of study to obtain a university master's degree for the management of health-care professions. The HWN, take role through a mix of competencies, which can be understood as the set of behaviors, skills, knowledge, and abilities that a professional must have in order to

play a certain role, as he can use them in a given context.

Its profile, is marked both by basic skills but also by so-called "core competences" that make the function competitive and infungible. (Klemp, 1980), proposed a list of skills that later found their proper definition in (Spencer & Spencer, 1993). By the latter authors, competencies are described as a body of skills that are divided into two parts, the first identifies competence as an intrinsic characteristic of an individual causally related to excellent performance in a certain task while the second, lists its constituent factors and is defined as a set of motivations, traits, self-image, social roles, knowledge and skills.

The researchers, represented their competency model as an iceberg composed of both visible and measurable behaviors, skills and disciplinary knowledge and hidden competencies marked by motivation, traits and self-image. Operational skills, on the other hand, represent a body of technical skills related to knowhow. Skills are supported by training and experience related to technical scientific disciplines identified as "the knowledge". Motivations, traits and self-image consist of relational, personal and intellectual qualities i.e., knowing how to be. Given the complexity of the role of HWN, it becomes preeminent to identify and map core competencies useful to formally represent the function, clarifying responsibilities, areas of action and that consequently can be subjected to measurement (Levati & Saraò, 2002). In order to map the competencies, it is necessary to define the role that people are expected to play, and it is composed of a set of objectives and outcomes that are realized through the identification of activities performed, actions and expected behaviors. To represent the activities required of a professional profile, it is considered useful to describe and structure them through job descriptions (Melnyk et al., 2014).

The latter, contribute to the theorization of distinctive competencies that could be systematized and represented through a conceptual model such as the balance scorecard (Norton et al., 2017). It is a management framework supporting planning and management that enables the translation of strategy into action by setting goals that lead to the identification of measurable indicators.

The balance scorecard (BSC), can thus be defined as a system for measuring performances with the purpose of organizing the activities of the enterprise by representing business objectives with indicators and conceptual maps. The BSC, is described as a strategic and integrated approach that aims at the measurement of business processes and performance, enabling the definition and representation of strategic choices from a comprehensive, systemic and holistic viewpoint that results in the Key Performance Areas (KPA) related to specific indicators i.e. Key Performance Indicators (KPIs) with a strong immersion and enhancement of context.

The BSC, consists of four perspectives that are the financial perspective, the customer perspective, the internal process perspective and the learning perspective, represented through a strategy map. There are many experiences of the application of BSC in the health care context in organizational and budgetary settings (Broccardo, 2015; Tommasetti & Cuccurullo, 2004), but few experiments in which it was useful for mapping the competencies of health care professionals (Berti & Mozzarelli, 2021). This study, aim to identify the core competencies of the HWN, mapping and grading them according to the level deemed most strategic and making them evident through the configuration of the conceptual map as indicated by the BSC model.

2. METHODS

This study was conducted in a mixed-method method, with a qualitative and quantitative exploratory sequential approach.

2.1 Quantitative Study

The quantitative part, involved the administration of a questionnaire with the purpose of stratifying the core competencies identified by the research team, asking respondents to rank them with respect to the level of importance deemed most congruous.

For the creation of the questionnaire, the research team, used a number of documents and experiences such as the theoretical model of Spencer and Spencer (1993), the distinctive competencies drawn from the conceptual system defined by the Hospital-University of Ferrara Italy (2010), the documents describing the evolution of nursing competencies (IPASVI 2015; Massai et al, 2007) and the professional profile of the coordinating nurse in the surgical department of the Piacenza AUSL (2020), which led to the definition of a series of distinctive competencies by crossing the description of the competency with the objectives of the competency (Table 1).

A consecutive convenience sample was identified in which recruitment took place through a communication by organization e-mail to the all potential participants, they were informed about the purposes of the research and how it would be carried out through a specific consent form. Of all possible respondents that are doctors, nurses, healthcare worker assistants and therapists staff such as speech therapists and audiometrists from the surgical department of the AUSL of Piacenza (Table 2) joined the survey, which was followed by the collection of 112 questionnaires of which 104 were considered valid, filled in by 39% of the population of possible respondents. The health professionals that have replied to the questionnaire, was consisted as 76 females and 28 males, including 73 nurses, 11 doctors, 17 health care worker assistants and 3 therapists; 8 forms were deemed invalid because they were incompletely filled out.

Respondents were asked to rank the skills ordered by level of relevance and/or importance using a six-step Likert scale. A score could be reported for each item where level 1 indicated a skill that was "not important" up to a value of 6 which meant a "very important" skill. Statistical processing, was obtained using microsoft excel spreadsheets, version 16.16.27, year 2016. For comparison of data expressed by respondents, ANOVA test was employed using social science statistics software, considering p values < to 0,05 as significant.

2.2 Qualitative Study

The qualitative approach, took the form through two focus group meetings (Paturzo et al 2016; Mortari & Zannini 2021) reserved to HWN as they were considered key informants respecting their role. The eight HWN from surgery department of AUSL Piacenza, took part in the survey voluntarily, expressing their consent to participate and to process data according to privacy protection regulations. The meetings were conducted in restricted areas adjacent to the places of care, the contents of the group discussions, were audio-recorded and then transcribed into verbatim and deleted after use.

3. RESULTS

The data collected from the questionnaires, were first divided and developed by professional categories and then processed in aggregate. The skill that received the highest score, was self-control skills with a score of 5.12 points. Next was the flexibility skill, which scored 4.93 points.

In third position: "orientation to the user" with 4.88 points followed by team leadership skill with 4.87 points. "Support for changes" skill, scored 4.86 points followed by development skill with 4.79 points on par with sense of initiative. Comparison of the responses provided by different professions, showed no statistically significant differences (Table 2).

Regarding the qualitative approach, in the first meeting, the meanings of the individual core competencies had been discussed in consistency with the objectives related to them and the expected and visible behaviors. In the second meeting, the results obtained from the survey completed by all health personnel were shown and discussed. Finally, a thematic analysis was conducted according to Shilling's (2006) model, allowing the strategic map to be drawn up (Table 3).

In line with the BSC model, the contents of the four areas that distinguish the BSC model were defined, including the objectives or KPAs and indicators or KPIs as well as their interconnections.

3.1 Economic and financial area

Group discussions, made possible to formalize that in this specific area appears the orientation to the result that is pursued through the effectiveness of the coordinator's role acted through the control of costs and budget, to the maintenance of the

performance of professionals and empowerment of resources.

3.2 Client orientation

In this area, the internal user and professional development orientation emerges through the propensity to build, consolidate multidisciplinary teams and focus on their satisfaction through team leadership prerogatives on the part of the coordinator that are reflected in the organizational climate and image of the operating unit.

3.3 Business processes

Service orientation, appears to be an important aspect of directing organizational processes that are realized through coordination mechanisms such as work organization, supervision of clinical/assistance activities and fulfillment of assigned goals. The management of these activities, requires on the part of the coordinator, good skills of self-control marked by balance and availability both in times of tension of professionals for the required results, and among the individual professionals who make up the care team. In governing business processes, the coordinator must take into account the possibility of involving professionals in decision making and change through the use and internalization of flexibility prerogatives.

3.4 Innovation and development

This area of the BSC, is characterized by development initiatives in the formative and learning sense. Innovation also moves through the support that information systems and new technologies can provide. In this area, organizations, have the opportunity to develop knowledge and do research by creating new group cultures. The formulation of the HWN skills, their graduation, allowed the design of a detailed scheme divided into competencies, objectives or KPAs, and indicators or KPIs, returning to each item a weighting in line with the results of the quanti/qualitative analysis. Therefore, the aforementioned framework, will be useful in systematizing the main activities of HWN, making them known to the staff and professionals around the HWN allowing timely evaluation and possible reshaping by the over-ordered governance frameworks (Table 3).

4. DISCUSSION

The nine strategic competencies used in the study, analyzed alongside the objectives and expected behaviors, have provided HWN and their staff with a tool to measure and gain a broader perspective on the role played by HWN. Its involvement in the in-depth discussion of the contents of the nine competencies enabled their placement in the four dimensions (economic/financial, customer orientation, business processes, and innovation and development) that form the backbone of the BSC, identifying objectives and indicators.

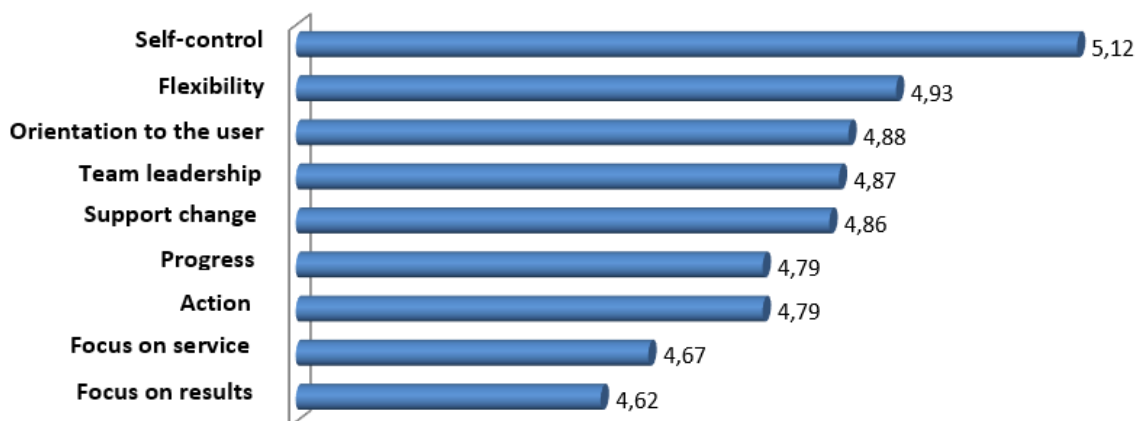


Figure 1. Questionnaire Results

The process of mapping professional competencies and assigning them appropriate weight—particularly in relation to care delivery—has gained increasing attention in recent literature. A recent study by Yang (2022) emphasizes the importance of systematically identifying and evaluating these competencies to enhance the quality and efficiency of healthcare services. In parallel, Betto et al (2022) applied the Balanced Scorecard model to nursing, with the aim of shedding light on specialized nursing activities that often remain invisible in traditional performance assessments. These activities, while not always quantifiable or immediately observable, are critical to the creation of value and the cultivation of a strong, patient-centered care culture within healthcare settings.

In contrast to previous studies, current research uniquely focuses on the competencies associated with the role of the Head Ward Nurse (HWN). While prior investigations have addressed general care activities and the broader spectrum of nursing competencies, the specific reference to the competencies of HWN roles represents an area that remains largely unexplored. This work not only maps these competencies but also introduces a framework for weighing them in a manner that reflects their relative impact on organizational performance and care quality.

The development of this framework is particularly significant given the complex nature of the HWN role, which involves both clinical and managerial responsibilities. By detailing the competencies required of HWNs, our study aims to provide a more comprehensive understanding of how these key individuals contribute to the operational success and cultural development of health care units. This nuanced perspective addresses a gap in the literature, offering insights that could inform both policy formulation and practical strategies for staff development.

Despite these advancements, the work presented in this study stands out by specifically focusing on the competencies associated with the role of the Head Ward Nurse (HWN)—an area that, to date, appears to have received limited attention in existing literature. Indeed, the conceptual ways, of constructing and representing distinctive competencies, turns out to be in line with many other contributions in the literature that have investigated this aspect on more operational profiles and more directly involved in patient care.

This study highlight HWN serves as a pivotal figure within the healthcare team, acting as both a professional reference point for colleagues and a central organizational anchor around which care activities and team dynamics revolve. In this context, the definition, mapping, weighting, and representation of the HWN's core competencies—structured according to the BSC model—enable the explicit articulation of their professional role. This process not only supports the maintenance and potential enhancement of the HWN's functional performance but also establishes a foundation for the objective assessment and evaluation of their contributions.

The integration of a competency mapping approach with the weighted assessment of care activities aligns with contemporary management theories that emphasize both measurable and intangible contributions within healthcare environments. On a theoretical level, this study reinforces the argument that invisible activities—such as mentoring, coordination, and culture building—are essential to the creation of value in nursing practice. Practically, this framework can serve as a guide for hospital administrators and policymakers to design more targeted professional development initiatives, performance evaluation metrics, and organizational structures that recognize and reward the complex interplay of clinical expertise and leadership.

5. CONCLUSION

The HWN represents the reference figure for professionals and the organization on which they revolve. The definition, mapping, graduation and representation of the core competencies of the HWN according to the BSC model, allow to make explicit the professional act in order to maintain or improve the exercised performances of the function as well as to lay the basis for their possible evaluation. By aligning competencies with strategic organizational dimensions, the BSC framework provides a multidimensional view that captures both visible outcomes and the often-overlooked yet critical invisible activities, such as leadership, mentoring, coordination, and cultural development within care teams. Therefore, future study exploring foundation for the objective assessment and evaluation of their contributions is warranty.

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Table 1. Skills, objectives and expected behaviors

SKILLS	GOALS	EXPECTED BEHAVIOR
Result orientation	Sets goals in terms of measurable outcomes	The HWN schedules regular and special meetings to update the staff on the goals of the ward and the available budget.
	Shall clearly define who does what, overseeing the delegation entrusted.	
	Gets results on schedule	
Initiatives	Makes proposals, ideas and projects for operational improvement	The HWN together with the staff arranges work plans that adapt to both departmental routines and urgent -emergency situations
	Assess the results obtained and redesigns the operational action if necessary.	
User orientation	Actively listens and understands the views and needs of others	Organizes and establishes entry process and times for relatives, supporting staff and remaining available for any doubts or concerns
	Consistently compares with co-workers, colleagues, and managers respecting the quality-satisfaction of one's performance	
Support changements	Invests time and attention to motivate, support and promote change	The HWN in collaboration with the representatives identifies the critical issues that have emerged in the use of technological tools and uses them as a strength to improve the behaviors and habits of their employees, promoting change (defibrillators, ventilators.).
	Analyzes change proposals, identifying opportunities, needs, reasons, and benefits	
Team Leadership	Makes the goal clear, simple and concrete, adapting it to each person's different realities	The HWN is committed to sharing decisions on technologies used in the hospital unit with the entire team, and obtains their approval (new respiratory devices, training courses).
	Conducts efficient meetings, defining objectives, participants, roles, methods, and timing	
	Highlights positive results achieved, valuing teamwork.	
Development	Provides necessary information and knowledge to co-workers in an accurately and consistently way.	The HWN shows to co-workers the budget goals achieved by giving credit to each one for the work done consistently and effectively.
	Provides substantiated and constructive criticism respecting the person's way of progressing	
Self-control	Tolerates stressful and tense situations	The HWN in meetings and group confrontations creates a climate conducive to confrontation by avoiding conflicts, manages to control and self-control emotions, encouraging confrontation on content and not emotions.
	Reacts appropriately and constructively to tensions and provocations	
	Maintains lucidity and motivation in the face of particularly problematic situations	
Flexibility	Modifies strategy and programs if changes occur in the environment	The HWN adapts to changes and adjusts staff to new directives quickly, such as in the case of changing business/regional regulations.
	Adapts its plans to the needs of others to achieve group goals	
Service orientation	Participates in committees, projects, commissions related to specific goals	The HWN reports the noncompliant behaviors of their staff members to their departmental care manager.
	Aligns its behaviors with the needs, priorities and goals of the organization, with constant attention to its Code of Professional Ethics	

Table 2. Characteristics of questionnaire respondents

Profession	n.	Working age in the surgical field AUSL Piacenza	Years of total service
Nurse ward manager	8	27	27
Nurses	73	14	16
Doctors	11	6	10
Healthcare worker assistants	17	5	15
Speech therapists	2	8	18
Audiometrists	1		
Null ballots	8		

Table 3. ANOVA test for responses from professional groups

Skill	Comparison of the various professional profiles (nurses, technicians, social and health workers, physicians, coordinators)		
T1-t2	Q = 2,54	P= 0,38	
T1-t3	Q = 3,21	p= 0,16	
T1-t4	Q = 0,30	p= 0,99	
T1-t5	Q = 1,58	P= 0,79	
T2-t3	Q = 0,67	P= 0,98	Overall f-ratio 1,99 p= 0,10
T2-t4	Q = 2,24	P= 0,51	
T2-t5	Q = 0,96	p= 0,96	
T3-t4	Q = 2,91	p= 0,24	
T3-t5	Q = 1,63	P= 0,77	
T4-t5	Q = 1,29	P= 0,89	