

Theoretical Perspectives Of Occupational Health Nurses (OHN) Career In Indonesia: A Critical Review And Future Exploration

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Abstrak: *In practice the Occupational Health Nurses (OHN) in Indonesia do not have sufficient career objectives regardless of the availability of 30.381 medium-large industries. These opportunities and challenges prove that from the OHN employment viewpoint, the prospects for the OHN professionals are very promising. In terms of education where OH nursing specialization in Indonesia is still very limited, the career of the OHN corporate nursing profession needs to be analyzed and explored. This review aims to enhance the understanding of OH nurses' careers based on theoretical perspectives in an increasingly dynamic educational environment, provides comprehensive understanding of the work for OHN nurses and offers future research direction. The method used was Assessment Model of Meleis to review selected documents by implementing three types of career path, i.e. Career Framework, Change Model and Nursing Career Framework. There were 71 documents were reviewed include of the nursing education system by the Ministry of Health, the National Education System, Ministry of Higher Education (Ristekdikti), Development and Empowerment of Healthcare Human Resources (BPPSDM), AAOHN, OHN Career Guide Canada and several journals of the last five years, from 2016 to 2020. Meleis' Model provides a deeper understanding of the OHN career. Meanwhile, reviewing career framework theories also contribute to the career path of OH Nurses, both in practice, research, education and administration in various dimensions of nursing care in the industrial settings.*

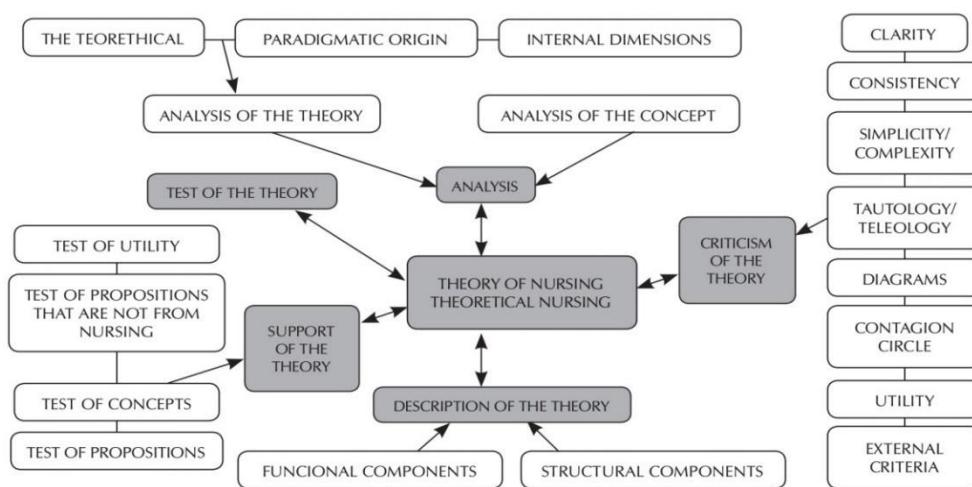
Keywords: *Meleis' Theory, occupational health nurses, Nursing Career.*

INTRODUCTION

Theoretically and practically the Occupational Health Nurses (OHN) in Indonesia do not have clear career path regardless of the availability of 30.381 medium-large industries (BPS, 2020). The condition is followed by the growth in healthcare services, which is classified as the highest among 17 existing sectors (Databoks, 2020). These opportunities and challenges prove that from the OHN employment perspective, the career of OHN professionals is in fact very promising, from the nursing education of Diploma until Post Graduate levels. Polytechnics of Health (Poltekkes) of the Ministry of Health throughout Indonesia produced 8,709 nurses for the diploma III education level and 2,162 young nurses for the undergraduate level in 2019 (MoH, 2020). From other colleges or universities of non-MoH educational institutions, in the same year, 138,206 graduate nurses were produced (MoH, 2020). The total number of nursing education graduates occupies 43% of all non-medical health education graduates in Indonesia. This means that the nursing profession is much demanded, dominating the healthcare profession in Indonesia. Law No.38 of 2014 states that what is meant by professional nurses is at least a bachelor's degree and has a nursing license (MoH, 2019). Nurses working in industries need to pursue their career (AAOHN, 2012). Globally, the nursing workforce reaches 59% of all health professions in the world (WHO, 2020). This number will continue to increase and change according to the needs of the times (Tukayo et al., 2021). Changes in the environment, such as increasing globalization, rapid technological advances, increasing workforce diversity, and expanding the use of outsourcing and part-time and temporary employees, have changed traditional organizational structures (Sullivan and Baruch, 2020). The relationship between employers and employees, and the work context, also leads to changes in how individuals carry out their careers. Traditionally, nursing career has been defined as the individual's relationship with organizational work. This linear career is described as taking place in the context of a stable, organizational structure (Super, 1957), with individuals advancing up the corporate hierarchy seeking greater extrinsic rewards (Rosenbaum, 1979). Historically, this model was popular during the 1950s and 1960s, supported by an economic and workplace environment characterized by the introduction and growth of new technologies as well as social norms and structures (Sullivan & Crocitto, 2007). One decade later, health services in the industries are also experiencing developments. Tukayo (2020) mentioned that the number of OHN nurses in Indonesia is relatively rare. Based on data as of April 26, 2020, the Ministry of Industry (Kemenperin, 2020) noted that they had issued operational permits and mobility for industrial activities to 14,533 companies. The total workforce is 4,330,215 people (CNBC, 2020). Yet, the problems of Occupational Health Nursing services in industries still exist. The graduate nursing program in Indonesia started in 1985 (Universitas Indonesia, 2020). Yet, OH Nurses are still very limited in numbers, apart from the unavailability of nursing education institutions that carry out OHN specialization programs, OHN teaching staff are not yet available, OHN training in universities in Indonesia also does not exist (Tukayo et al., 2021). According to WHO (2012), the role of OHN nurses includes clinician, nursing manager, adviser, educator, researcher and coordinator. The lack of quality and quantity of OHN services in the future will affect healthcare services in general in the industrial world in Indonesia. Due to these phenomena, this study analyzes the career development of OH nurses in Indonesia and their future prospects from theoretical perspectives, with the hope that it can be used as a reference for pursuing OHN's career path in the future.

METHODS

The method used in this article is Assessment Theory Model by Meleis (2016) to review 71 documents to match with three types of career paths, i.e. Career Framework, Change Model by Kotter and the Nursing Career Framework that have been used by Bernard and Oster (2018). These three types of nursing career models were selected after being compared with two other models that have been used in career development, namely the Delphi Model (Rahimi et al., 2020) and the competency-based Quinn Model used by Fitria (2016). Meleis' model (Figure 1) consists of 5 phases: analysis, criticism, test, support and description of the theory. Meleis's Model was used for the study as it enables the analysis of scientific research in a systematic and broad manner, favoring the description and dissemination of knowledge produced. Besides, it is more applicable with the situations and conditions of the Indonesian nurses.



Source: Meleis (2012).

Figure 1: Theory of Assessment Model by Meleis (2012).

RESULTS

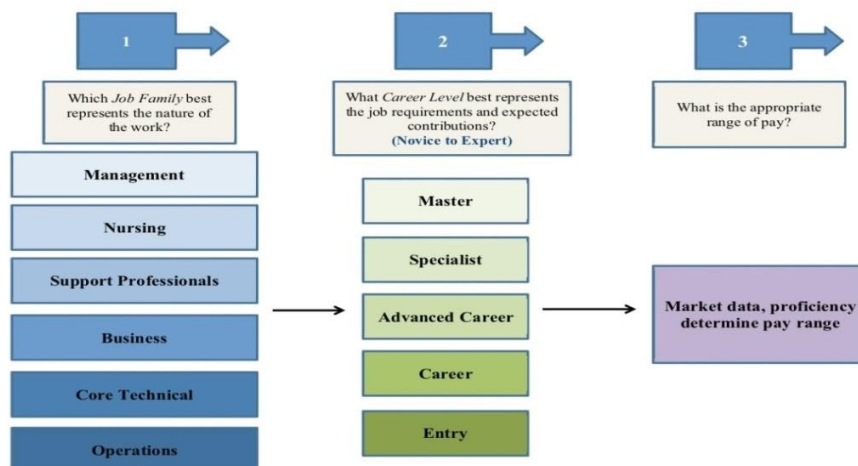
The analysis theories model proposed by Meleis consists of 5 phases: analysis, criticism, test, support and description. Analysis of the Theory is the process of identifying parts and components which includes concept analysis and theoretical analysis. Concept analysis is a useful process for theory development and evaluation, including semantic analysis, logic and contextual derivation, in addition to the description of antecedents and consequences of concepts (Neto et al., 2016). This study analysed 71 documents and their contents or theories were identified whether relevant with OHN career. The theory involves important factors that can influence the development of the theory and its current structure. Criticism of the Theory aims to build relationships between structure and function such as analyzing clarity, consistency, simplicity, complexity, theoretical diagrams, circles of transmission (geographic origin of theory, geographic expansion and influence of theory), utility (in practice, research, education / training and management) and external components such as personal values, conformity with other professional values, conformity with social values and social significance (Neto et al., 2016). In this phase the 35 documents (49.29%) were assessed for eligibility as per clarity, simplicity, geographic expansion, research, education and training. Other documents (36 or 50, 71%) were excluded). Test of the Theory deals with practice, submitting for use, conducting

reviews. This phase consists of inspection, a systematic process in which theoretical proposals are submitted to research for accuracy in all their forms and approaches (Neto et al., 2016). The consequences of testing the theory of the study results may suggest changes and improvements. The test of the theory is a dynamic process and provides verification of theory development. In this stage 20 documents (57.14%) out of 35 were tested in which 1 model (Meleise's) and 3 theoretical (models) were selected, i.e. Career Framework, Change Model by Kotter and the Nursing Career Framework. Support of Theory is a phase in which the extent and acceptance of the proposed theory is evaluated, in order to identify the existence of a scientific community that applies this theory or in different situations (Neto et al., 2016). In this phase 3 scientific theories were applied out of 20 focused documents and 15 documents (42, 85%) were treated as supporting documents. The Description of Theory includes functional components (OHN focus, nursing problem, nurse-client interaction and environment) and structural (assumption, concept and proposition). There were 13 documents (31.14%) that focus on OHN, nursing problems and other related information in this stage.

The results of Meleis's model are then explored and divided into three stages after sorting out that the three types of nursing career are most appropriate in planning future career paths for the OHN nursing profession, i.e. Career Framework Model, Kotter's Change Model and the Nursing Career Framework. However, a clear description of OHN's career is presented by the OHN Canada nurse association (OOHNA, 2012) and Randolph's (2014) with the recommendation on how to become a certified OHN nurse. These models were not only recommended by many scholars who use the same models (Neto et al., 2016), but also because they focus on OHN issues and are relevant to the OH nurses' situations and conditions in Indonesia.

Career Framework Model

Figure 2 below is the Career Framework Model in which nurses see employers as stepping stones for future roles and successful professionals (Siscovick et al. 2015). This model explains that an organization needs to have a commitment to employee engagement, growth, development, and longevity. Understanding the importance of providing an internal career path model as a strong retention strategy (Becom & Kegerese, 2014; Kovick et al, 2015; Vasquez & Crawford CL, 2016) is one of the focuses. A career framework is a model that provides a structure and process for the alignment of career paths, jobs and growth and development opportunities, education, and relevant skills to visualize their careers on the development map in the organization (Bernard & Oster, 2018).



Source: Bernard & Oster (2018)

Figure 2: Career Framework Model

In nursing, Career development programs play an important role in advancing the professional practice of nurses, contributing to the organization, and generating job satisfaction through effective commitment (Vasquez & Crawford, 2016). The benefits of a career framework include standardization: job descriptions across the care system, required competencies and clinical practice skills, role requirements, education and certification, succession planning models, role expectations, targeted development and management careers (Becom & Kegerese, 2014; Kovick et al. al, 2015). This model matches with the policy of nursing education and registration systems implemented by the Ministry of Health (MoH, 2016).

Change Model

The model in Figure 3 below describes the steps of change that can be applied in planning a career framework. The first step is determining the urgency, the second step is building a coalition, the third one is formulating a vision for change, the fourth is communicating the vision, the fifth is removing barriers and empowering staff, the sixth is creating short-term goals, the seventh is making revisions and the last is implementing changes. In essence, this model describes the applied steps of how to plan career from the start, in the form of identifying the background of what the real urgency of planning career is, to the end result that is global in nature, namely the existence of an integrated system change between the composition, the process with development and the achievement of the role of nursing leadership (Bernard & Oster, 2018).

| Change Step | Applied in Career Framework Project |
|---|--|
| 1. Establish a sense of urgency | Shift in healthcare from volume to value Current labor shortage Forecasted future workforce shortages/needs Emerging millennial workforce |
| 2. Build a guiding coalition | Interprofessional team of all nursing levels, human resources, compensation, executive sponsors |
| 3. Create a shared vision for change | Shift from reward of seniority and tenure to reward based on increased knowledge and skill proficiencies with heavy emphasis on career development |
| 4. Communicate the vision | Comprehensive communication plan and toolkit, accompanied by celebratory video, manager education, and collection of nurse career stories |
| 5. Remove barriers and empower employees | Shared leadership model facilitated framework design details, implementation plan, build framework structures and processes, and remove barriers |
| 6. Create short-term wins | Pilot of nursing assistive personnel career framework, celebrate successes, identify learnings |
| 7. Revise, refine, scale, and build on the change | Full implementation of assistive personnel career framework with rollout of RN career framework in alignment with annual associate goal setting |
| 8. Anchor the changes | Global, system integration of structures and processes with expansion to nursing leadership roles |

Source: Bernard & Oster (2018)

Figure 3: Kotter's Change Model to the Career Framework

Nursing Career Framework

Figure 4 below describes the nursing career framework through formal education which is tiered from the initial stage (Entry Level N1) to specialization and master level (Master, N5). It also

outlines in detail the requirements that must be had from the entry level to the Master of Nursing level, what are the requirements for entering the next education level. Also explained the details of

| Nursing | | | | | | |
|-----------------------------|---|---|---|---|--|--|
| | Entry N1 | Career N2 | Advanced Career N3 | Specialist N4 | Master N5 | |
| Requirements | BSN/ADN/ Diploma | BSN Without Certification or Non-BSN with Certification | BSN with certification or with Master degree in related field, both without BSN with certification or Master in Nursing. | Level 1: MN with PhD or EdD or DNP with certification or Level 1: certification with master degree certification, with program oversight. certification, Level 2: APN with certification or DNP without certification | | |
| General Profile | <ul style="list-style-type: none"> Perform routine assignment. Requires a college or university degree. Develop competence. Uses procedures. Receives instructions and guidance. Explains why information and technology skills and essentials. Recognizes times, efforts and navigation skills. | <ul style="list-style-type: none"> Requires knowledge and experience, acquires higher knowledge and skills. Builds knowledge, solve problems, analyzes solutions. Work independently, receive moderate guidance. Identifies essentials information. | <ul style="list-style-type: none"> Requires in-depth knowledge and experience. Uses best practice. Solves complex problems, takes a new perspective. Work independently with minimal guidance. Acts as a resource. Integrate technology and management to support quality care. | <ul style="list-style-type: none"> Requires specialized of expertise using best practice. Solves complex problems, takes a new perspective. Work independently. May lead functional team or project. Formulates information to support quality care. | <ul style="list-style-type: none"> Recognized as an expert. Anticipates challenges and recommends improvements. Solve problems. Leads project teams and achieve objectives. Evaluates strengths and weaknesses. | |
| Functional Knowledge | Requires conceptual knowledge of nursing and person-centered care. | <ul style="list-style-type: none"> Requires expanded conceptual knowledge of nursing and. Requires integration of person-centered care. Implement evidence-based practice. | Requires conceptual, expertise, and integration of multiple dimension in clinical practice. | Requires depth expertise, analyzes of evidence, and multiple dimension of clinical practice. | <ul style="list-style-type: none"> Regarded as technical expert. Requires expertise in nursing and other discipline. Analyzes and synthesis of multiple dimension in clinical practice. | |
| Business Expertise | Applies general knowledge of the healthcare industry | Understand key business drivers | Has knowledge of best practice. | Interpret challenges and recommends improvement programs. | Anticipate business issues, analyze/synthesize evidence and recommends improvement/change. | |
| Leadership | Accountable for developing teamwork | May serve as occasional lead, mentor or preceptor. | As resource, may lead small quality improvement project. Serves as lead, charge, mentor/preceptor. | Competence to lead functional teams with moderate risk. | Lead and develop strategy for improvement of a project. | |

the initial requirements for starting a career in nursing education, General Profile, Functional Knowledge, Business Expertise to Leadership.

Source: Bernard & Oster (2018)

| | | Nursing | | | | |
|-----------------------------|--|---|--|--|--|---|
| | | Entry N1 | Career N2 | Advanced Career N3 | Specialist N4 | Master N5 |
| Problem Solving | | <ul style="list-style-type: none"> To solve standard problems, analyze information and standard evidence-based practices to make judgments. Scientific knowledge is developed through research and applied to clinical practice. Able to identify and access resources | <ul style="list-style-type: none"> Solve quality improvement and safety problems, analyzes solutions and safety methods. Participates in research and use it in clinical practice. | <ul style="list-style-type: none"> Solve quality improvement and safety problems, takes a new perspective, exercises judgment based on outcomes from care process. Applies research findings to clinical practice, using existing standards. Contributes to research activities, assisting investigators in research, and implementing them in more advanced credentials. | <ul style="list-style-type: none"> Leads others to solve quality improvement and safety problems, analyzes outcomes of care, exercises judgments and identifies innovative evidence-based solutions. Critically appraises research findings, provides leadership in clinical practice. Demonstrate active membership on research. | <ul style="list-style-type: none"> Solve complex quality improvement and safety problems, requires conceptual and innovative thinking to develop solutions. Analyzes and synthesizes outcomes of care process to design and implement quality improvement and safety changes. Design research studies independently or collaboratively. Manages inter-personal research team. Disseminate research findings to research community. |
| | Impact | Quality and safety of own work | Quality and safety of own work and the work of others | Range of patients or residents, project or service activities. | Achievements of patients or residents, operational, project or service objectives. | Direction and resource allocation for program, project or services. |
| Interpersonal skills | Communicates information, asks questions and checks for understanding. | Communicates complex information. | Communicate challenging or sensitive information, initiate conversation, works to build collaboration and consensus. | Communicate challenging concept, manages negotiations and collaborations. | Communicate complex ideas, anticipate potential objections, negotiates and collaborate with facility and senior level teams. | |

Figure 4: Nursing Career Framework: Map of Proficiency Progression

Source: Bernard & Oster, 2018

Figure 5: (Cont.) Nursing Career Framework: Map of Proficiency Progression

The above figure describes the career stages starting with Problem Solving from Entry to Master of Nursing levels, continuing to Impact, and ends with Interpersonal Skills, which also start from Entry Level N1, to Master (N5).

The final results of the review show the relationship between the nursing education system in Indonesia with the flow and structure recommended by the three models in general, without specifically mentioning OHN career framework, both in terms of requirements and the career development path of nurses from entry level to doctoral level.

DISCUSSION

Description of the Theory

Nursing education in Indonesia does not yet have OHN specialization (Hardy, 2012; Tukayo, 2020). OHN nurses play a key role in the industrialized health care system (WHO, 2012; Rogers et al. 2009). To improve professional conditions and the quality of care, OHN nurses need to have a clear career path. In order to achieve this goal, it requires a theoretical basis that can be accepted academically, in accordance with existing laws and regulations. The Nursing Career Framework

model which was applied by Bernard and Oster (2018), in which nursing organizations include clinical nurses, advanced nursing practice, and roles that require nursing licenses in 17 acute care, home care, outpatient care, senior care, and and comprehensive hospice and palliative care services can be used as a reference. The description of OHN' main roles and responsibilities include general OH Nurse to the OH Nurse Specialist level, from Diploma until Doctorate level of education. These levels of education are not yet available in Indonesia, but training on K3 only (Tukayo et al., 2021).

Criticism of the Theory

What was not included in the study was the role of nursing leadership, who lived in the leadership work family (Bernard & Oster, 2018). Key stakeholders from all levels of clinical nurse, various nursing roles, advanced practitioner, educator, nurse leader, human resources, and management talents collaboratively design and competitive career frameworks for RN in organizations are the focus of her research (Barnard & Oster, 2018). Although this model is acceptable, the nursing education career framework in Indonesia refers to this Nursing Career Framework Model (Efendi, et al., 2019). The difference is that Indonesia does not have a framework related to career development for non-certified and certified nurses, from the entry level (Diploma or BSN) to the Master degree. The Nursing Career Framework is clearer and more detailed regarding the progress mapping of its profession. The development of a nursing career framework is significant because through career development one will be able to advance nursing professional practice in the context of quality and safety while shifting the paradigm for organizational advancement and aligning compensation away from seniority and towards advanced expertise (Bernard & Oster, 2018). Indonesia requires a system in which non-certified nursing diploma/degree holders can be recognised under their umbrella with less professional responsibility, without professional nursing license, but as nurse assistants or healthcare assistants. So that the roles and responsibilities of nurses are more focused on the nursing procedures.

Analysis of the Theory

The careers of OHN nurses described by the OHN nurses association in Canada are very clear regarding the educational prospects, future and welfare of OHN nurses (Oakley, 2003; OOHNA, 2012; OSHA, 2012) according to the role of OHN nurses (WHO, 2012). Therefore, in Indonesia there is a need for deeper studies and research related to OHN careers.

| Nursing program | Eligibility Criteria for Entrance | Training Duration | Examination for qualification | Usually work at |
|-----------------------|--------------------------------------|--|--|---|
| Diploma in Nursing | Completion of 12 th grade | 3 years 4 years | Indonesian Health Worker Assembly (MTKI) with University | Hospital, community health centre |
| Bachelor of Nursing | Completion of 12 th grade | 4 years in academy 1 year in clinical setting | University MTKI with University | Hospital, community health centre, industry |
| Master of Nursing | Bachelor of Nursing/Registered Nurse | 2 years | University | Nursing school, hospital |
| Specialist in Nursing | Master of Nursing | 1 year | University | Nursing school, hospital |
| Doctoral in Nursing | Master of Nursing | 3 years | University | Nursing school |

Source: Efendi et al (2019).

Figure 6: Nursing Education in Indonesia

In this era of globalization where certification and accreditation of healthcare providers are required everywhere, it is time for Indonesia to start nursing specialist education on Occupational Health Nursing so that industrial health care services are able to provide the best nursing services to employees and their community. This is in accordance with the expectations of the objectives as stated in the national health system (Tumurang, 2019).

CONCLUSION

The findings of this study confirm that the application of one or more stages of the model proposed by Meleis provides a deeper understanding of these theories. Meanwhile, reviewing career framework theories also contribute to the career path of OH Nurses, both in practice, research, education and administration in various dimensions of nursing care in the industrial settings. This article used Meleis's model in analyzing the application of 3 types of career paths for OHN nurses according to the Career Framework Model, Kottler's Change Model and the Nursing Career Model, which in turn prove very important for the development of OH nursing. This study proved relevant to broaden knowledge on theoretical analysis models and their importance for OH Nurses in an effort to increase their career prospects. The lack of review in this article is that the models described in the theories do not specifically explain the detailed career path of OH nurses, educational requirements, certification, functional knowledge, business experience to the leadership skills of OH nurses. However, in the future the result of this study can be used as reference for further research on career paths for OHN nurses in Indonesia.

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