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Title:

Entrepreneurial Nurses in the Literature: A Systematic Literature Review

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## Entrepreneurial Nurses in the Literature: A Systematic Literature Review

### Abstract

**Aim:** This study explores the main characteristics of entrepreneurial nursing.

**Background:** Nurses have acted entrepreneurially in a multitude of ways since the very beginning of the nursing profession. Still, it is unclear what it means for a nurse to be entrepreneurial. Entrepreneurial nurses are often described inconsistently, by non-inclusive terms not founded in research. There is a need to examine the essence of entrepreneurial nursing roles.

**Evaluation:** I conducted the research as a systematic literature review of 647 documents. Analysing empirical descriptions of entrepreneurial nurses' employment status, contexts, knowledge, activities, barriers and motivations led to the description of two entrepreneurial nursing roles.

**Key issues:** The employment status of entrepreneurial nurses represent an important difference in their activities, challenges and motivations.

**Conclusions:** Entrepreneurial nurses may act as nurse entrepreneurs or nurse intrapreneurs. These roles are empirically rooted in the field of nursing, and theoretically rooted in the field of entrepreneurship.

**Implications for Nursing Management:** Entrepreneurial nurses are influenced by the support they get and the challenges they face in the healthcare system. Knowing the characteristics of entrepreneurial nurses are important for nurse managers, as they lead employees who may become nurse entrepreneurs or nurse intrapreneurs.

*Keywords:* Entrepreneurial nursing; employment; entrepreneurship; management; nursing;

## Introduction

'To meet future health-care delivery challenges, nurses and midwives need to be able to challenge current practice, be leaders of change, and show how they have a real impact on health care for patients' (Douglas, 2011, p. 698).

Entrepreneurship in the profession of nursing, entrepreneurial nursing, is seen as a prerequisite to handle global healthcare challenges, improve patient safety and achieve excellence in nursing (McSherry & Douglas, 2011; McSherry et al., 2012). Numerous entrepreneurial nurses have created, and are still developing, important products and services for our modern healthcare (Hughes, 2006). This has been happening since the beginning of the nursing profession. Indeed, Florence Nightingale acted entrepreneurially, revolutionising hygiene procedures in hospitals and establishing a nursing school in the middle of the 19th century (Hughes, 2006; Lyden, 2017; Nightingale, 1859). Since then, entrepreneurial nursing has occurred in various contexts and organisations; however, it has inconsistent labelling (e.g. 'self-employment' and 'social entrepreneurship') (Wilson et al., 2012). These terms do not reflect the nuances of being an entrepreneurial nurse – furthermore, the definitions are not always founded in a research field. As an example, the International Council of Nurses' (2004, p. 4) definition of entrepreneurship in nursing is based on three documents: the first is from the Registered Nurses Association of British Columbia dating back to 1990; the second is a practice-based guidebook for nurses wishing to start a business (Vogel & Doleys, 1994); the third is a report about marketing and nursing (Kingma, 1998). While it is difficult to identify the theoretical and empirical foundations of these sources, the International Council of Nurses' guidelines are widely used in the nursing literature to define entrepreneurship (e.g. Arnaert et al., 2018; Fletcher, 2010; Sanders & Kingma, 2012; Vannucci & Weinstein, 2017; Wilson, 2003; Wilson et al., 2004). Thus, we must establish a solid basis for entrepreneurial nursing. This study explores entrepreneurial nursing via the following research question: What are the main characteristics of entrepreneurial nursing? I examine entrepreneurial nursing roles from the individual level of analysis. I use the term 'entrepreneurial nurse' to encompass all varieties of acting entrepreneurially as a nurse (e.g. being a social entrepreneur or a self-employed nurse).

## Background

Entrepreneurship is a process that unfolds over time – the entrepreneur identifies an opportunity worth pursuing and acts upon said opportunity (McMullen & Dimov, 2013; McMullen & Shepherd, 2006). Shane and Venkataraman (2000) argue this begins with something to act upon – an opportunity the entrepreneur wishes to explore. The opportunity is just that – it is not a promise, nor does it have a predictable result. Entrepreneurs act under uncertainty using their beliefs and knowledge to decide what to do and fuelled by their motivations for why they should do it (McMullen & Dimov, 2013; McMullen & Shepherd, 2006) – this mechanism also applies to entrepreneurial nurses (Wilson & Averis, 2002). The entrepreneur is the essential person driving this process forward, either alone or in a team (Bruyat & Julien, 2001). Entrepreneurship does not happen in a vacuum – it is dependent upon the context in which it occurs. Entrepreneurs from different social backgrounds may perceive different opportunities, motivations and resources to accomplish their goals. Furthermore, all social ties – such as potential customers, suppliers,

partners or competitors – may influence the process and its outcomes (Anderson & Jack, 2002; Anderson & Miller, 2003). Entrepreneurship may unfold in any industry, new or established. Entrepreneurship in an established organisation is called intrapreneurship and entails identifying and pursuing opportunities related to the organisation's products, services, procedures, etc. An intrapreneur is the person responsible for this process (Antoncic & Hisrich, 2003). An intrapreneur shares the risks and benefits of the process with the employer organisation and pursues opportunities in line with the organisation (Wilson et al., 2012).

Four previous reviews and conceptual papers from the field of nursing have shed light on entrepreneurial nursing. One aspect regarded the applicability and relevance of entrepreneurial nursing in society (Wilson & Averis, 2002) and in various types of organisations (Drennan et al., 2007). Wilson et al. (2012) explored the differences between entrepreneurship, intrapreneurship and social entrepreneurship in nursing. Arnaert et al. (2018) addressed the educational gaps related to entrepreneurial nursing. These four papers have provided important insights relevant to grasping the complexity of entrepreneurial nursing; however, they do not clarify the terminology or create a solid, inclusive basis for global entrepreneurial nursing. Previous research about entrepreneurial nurses must be synthesised to understand various entrepreneurial nursing roles.

### Methods

In this literature review, I follow the process that Tranfield, Denyer and Smart (2003) suggested; I began by defining core concepts.

[Figure 1: The Systematic Review Process]

### Data Collection

I searched in Scopus, a scientific database including both medicine and business publications. To include a wide array of research about nursing and entrepreneurship, I combined nurs\* with either entrepren\*, self-employ\* or intrapren\*. I chose journal articles written in English, resulting in 647 documents. I read all of the available abstracts and excluded the following: articles that did not include both nursing and an entrepreneurial topic; non-empirical texts and texts about undergraduate nursing students, as I wanted to explore the processes and characteristics of practicing entrepreneurial nurses; and non-research (e.g. documents not describing their methods). Excluding non-research was a challenging task, as 49% of the results were non-scientific texts, such as news items, feature articles, opinions, personal stories, advertisements and texts for membership or union journals. Wilson and Averis' (2002) and Drennan et al.' (2007) literature reviews also describe this. A total of 296 documents did not have abstracts; thus, I read the first paragraph of the text instead. To keep track of my selection process, I briefly annotated my choices, such as 'Exclusion, this is a news story from *TIME Magazine*, not research'. Abstract selection reduced the number of documents to 164 papers. I applied the same exclusion criteria while reading the 164 full papers, leaving a final included sample of 37 documents.

### Analysis

I started this inductive thematic analysis by mapping all of the studies in terms of aims, study topic, methods, empirical contexts, results, definitions of entrepreneurship and author backgrounds (details in Appendix 1). I followed the six phases of thematic analysis Braun and Clarke (2006) described: 1) familiarising myself with the data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining themes, 6) producing the report. One initial code that became a theme was the differences in the entrepreneurial nurses' contexts (see Table 1 for details). Nurses were working as employees and business owners in rural and/or urban areas; in primary care, secondary care and private practices; in businesses; and in the education sector. As a second theme, I found that knowledge and lack thereof was a reoccurring topic in the literature. I identified three sub-themes of knowledge and skills: 1) clinical nursing expertise, 2) entrepreneurship and 3) management (see Table1). All nurses have nursing skills; however, the majority of the nurses in the literature were clinical experts with several decades of clinical experience and/or advanced nursing degrees (e.g. nurse practitioners and midwives).

*[Table 1: Inductive Thematic Analysis]*

The literature also describes entrepreneurial nurses' activities. I divided this third theme into five sub-themes: 1) clinical nursing and consultancy; 2) opportunity recognition and creation; 3) networking and collaboration; 4) management and administration; 5) marketing, sales and funding; and 5) research, education and training. A fourth theme to emerge was the multiple barriers to entrepreneurial nursing: 1) hierarchy, (lack of) power and tradition; 2) finance, law and reimbursement; 3) lack of knowledge and skills; 4) personal conflicts and negativity; and 5) time management. I defined the fifth and final theme as motivation. The literature shows that entrepreneurial nurses wish to 1) improve the quality of care, 2) maintain their professional identities, 3) improve their work situations, 4) achieve financial gain and 5) achieve self-realisation.

To ensure the thematic analysis covered the most important topics in the literature, I read each article several times to look for new themes. When I reached saturation, I read all papers again in alphabetical order and coded them into a final matrix (Table 1). I noticed that the nurses' employment status split the literature in two: 22 articles described business owners, and 18 articles described employees; only three articles described people that fit both categories. Thus, as a final step, I compared the employment statuses to detect differences in knowledge, activities, barriers and motivations (Table 2). I compared the two groups (employees vs business owners) by counting the presence of each theme (knowledge, activities, barriers, motivations) and looked at the percentage coverage of each theme in each group. This analysis illustrated similarities and differences between employees and business owners.

*[Table 2: Comparing Employment Status]*

## **Results**

Beginning with general findings, the combination of nursing and entrepreneurship is researched globally – this review includes papers from 16 countries. Of the 37 articles, 27 were written by authors specialised in nursing. Further, 22 (60%) were based on qualitative research methods, 13 (35%) used

quantitative methods and two used mixed-methods. The most common terms associated with entrepreneurial nurses in the literature were variations of the word 'entrepreneur', such as 'nurse entrepreneur' and 'social entrepreneur' (e.g. Andrade et al., 2015; Elango et al., 2007; Farmer & Kilpatrick, 2009; Wilson et al., 2003, 2004). Crofts (1994) combined 'entrepreneur' with clinical nursing credentials: 'certified nurse-midwife entrepreneur'. Nurses working in private or public institutions were portrayed as enterprising nurses, intrapreneurs, public sector entrepreneurs or change agents (Gibson, 2013; Marques et al., 2019; Sundin & Tillmar, 2008; Wall, 2014). Finally, nurses running clinical businesses were called self-employed nurses, independent contractors, independent nurses and private practice nurses (Caffrey, 2005; Lyden, 2017; Rolfe et al., 2008; Waite, 2019). Wilson et al. (2004) explored 'private practice nursing' by researching 'self-employed nurse entrepreneurs' (p. 488), thus using several terms interchangeably or simultaneously. Of the 37 articles, 25 (68%) did not define entrepreneurship or related concepts. In what follows, I present entrepreneurial nursing regarding all the themes from my analysis: contexts, knowledge, activities, barriers and motivations.

### **Contexts**

Entrepreneurial nurses work in both primary care (e.g. elderly homes) and secondary care (e.g. hospitals). Of the 37 articles, 18 (49%) were on nurses in private practices (e.g. clinics providing primary and/or secondary care). Nursing businesses that do not deliver care occurred in four papers (11%). Finally, nurses often run small businesses with 1–10 employees (Sankelo & Åkerblad, 2008, 2009; Wilson et al., 2004).

### **Knowledge**

Of 37 papers, 27 (73%) described entrepreneurial nurses as clinical experts with advanced nursing degrees or decades of clinical experience (Neidlinger, Bartleson et al., 1992; Neidlinger, Drews et al., 1992; Richter et al., 2019). However, some nurses began their ventures directly after graduation (Thompson, 2019). Knowledge about entrepreneurship and/or management is described in 13 articles (35%). As an example, Sankelo and Åkerblad (2008, 2009) found that their participants had relevant education and experience in both business and nursing before starting their own company. This does not regard all entrepreneurial nurses, as 10 articles described a lack of entrepreneurial knowledge and skills and a lack of infrastructural support (Elango et al., 2007; Rolfe et al., 2008; Sharp & Monsivais, 2014). By offering learning activities, Jahani et al. (2018) found that entrepreneurship education affected nurses' self-efficacy and entrepreneurial intentions, which is in line with Marques et al. (2018). Marques et al. (2019) found aspiring entrepreneurs to be more self-confident about their managerial skills and risk-taking and slightly more self-motivated than nurses without entrepreneurial ambitions.

### **Activities**

The majority of the literature, 36 papers (97%), describes clinical nursing and consultancy as key activities for entrepreneurial nurses. Some provide patient care in their practices (Caffrey, 2005; Lyden, 2017; Rolfe et al., 2008; Waite, 2019; Wall, 2014, 2015), and others are employed as clinical staff in institutions (Gibson, 2013). However, to be entrepreneurial, they also perform activities such as opportunity recognition and creation, mentioned in 23 papers, 62% of the literature. Entrepreneurial nurses generate ideas, utilise resources and initiate projects (Farmer & Kilpatrick, 2009; Richter et al., 2019). Some establish ventures and perform activities such as retail, wholesale and equipment rentals (Andrade et al., 2015). They convey their

ideas to others, they build support and gain approval to initiate, manage and evaluate their initiatives (Austin et al. 2006). Eleven papers also describe entrepreneurial nurses who perform research or participate in education and training (Caffrey, 2005; Farmer & Kilpatrick, 2009; Mitchell et al., 2010; Neidlinger, Bartleson et al., 1992; Richter et al., 2019). Managers and medical staff with extended authority can encourage and facilitate the initiation of entrepreneurial activities (Åmo, 2006; Austin et al., 2006; Bagheri & Akbari, 2018; Neidlinger, Bartleson et al., 1992; Neidlinger, Drews et al., 1992).

### **Barriers**

In all, 26 papers, 70% of the literature, describes barriers to entrepreneurial nursing. For example, nine articles mention personal conflicts and negativity, as nurses can face scepticism and criticism for merging business and caring (e.g. Wall, 2015). 12 papers regards challenges related to financing, legal matters and reimbursement, as nursing initiatives are often left out of insurance and reimbursement policies (e.g. Elango et al., 2007; Wilson et al., 2004). Furthermore, many entrepreneurial nurses lack entrepreneurial knowledge and skills (e.g. Sharp & Monsivais, 2014). Hierarchic healthcare with power imbalances between professions, role conflicts and friction between colleagues may hinder entrepreneurial development (Andrade et al., 2015; Austin et al., 2006; da Silva João & Saldanha Portelada, 2019; Elango et al., 2007; Sharp & Monsivais, 2014; Wall, 2013; Wilson et al., 2004).

### **Motivations**

Entrepreneurial nurses often wish to improve the quality of care (e.g. by serving an underserved population, accepting poor clients and improving patient outcomes) (Kirkman et al., 2018; Rolfe et al., 2008; Sharp & Monsivais, 2014; Waite, 2019). In all, 16 papers, 43% of the literature, describes how nurses choose entrepreneurship to maintain their professional identity by, for example, working after retirement (Rolfe et al., 2008), practising advanced clinical skills (Waite, 2019; Wall, 2013) or practising entrepreneurial skills (Austin et al., 2006; Marques et al., 2018). According to 19 studies, 51% of the literature, nurses choose entrepreneurship to control their workdays and careers and to increase autonomy and job satisfaction after feeling discontent with traditional employment (e.g. Sankelo & Åkerblad, 2008; Waite, 2019; Warmelink et al., 2015). Twelve articles mention financial success as a motivation or as a result of the entrepreneurial journey (e.g. Roggenkamp & White, 1998; Sankelo & Åkerblad, 2008). However, some nurses just want to supplement their retirement income, maintain their services and avoid financial issues (Rolfe et al., 2008).

### **Employment Status**

When comparing employment status, I found important differences in nurses' activities, barriers and motivations. First, the literature describes that business owners perform activities related to management and finances more frequently than employees. As an example, 59% of the literature about business owners mentions marketing, sales and funding in comparison to 17% of the literature about employees. Second, business owners are more present in the literature describing barriers tied to finances, lack of entrepreneurship knowledge, personal conflicts and time management. Third, business owners are more present in the literature about entrepreneurial motivations, especially the wish to improve quality of care and to achieve financial success and self-realisation. Knowledge of entrepreneurship is described equally between employment groups (a 1% difference); however, the lack of entrepreneurship knowledge is a bigger challenge



for business owners than for employees, as this is described in 36% of the business owner literature and only 17 % of the employee literature. Challenges regarding hierarchy and traditional roles in healthcare seem to be an important barrier for both groups (mentioned in 39% and 41% of the literature, respectively).

### **Discussion**

Based on my findings, I discuss what it means for a nurse to be entrepreneurial. The literature portrays entrepreneurial nurses as nurses first and foremost (Wall, 2013b, p. 981). Their nursing backgrounds and contexts influence their entire entrepreneurial processes. As an example, 36 of 37 papers describe clinical nursing as a key activity for entrepreneurial nurses; 18 of 37 papers focus on private practices. Thus, entrepreneurial nurses identify opportunities related to clinical nursing.

This literature review reveals that entrepreneurial nurses' employment status represents an important difference in their activities, challenges and motivations. Activities and worries related to management and finances are more often related to business owners than to employees. Business owners are also more often described as being challenged by the lack of knowledge and skills in entrepreneurship. These findings are not surprising, as business owners manage their new ventures through uncertainty and by taking financial risks (McMullen & Shepherd, 2006). Employees experience other challenges, e.g. lack of decision-making power in the organisation (Austin et al., 2006). Employees also have different resources than business owners, e.g. being surrounded by a safety net of multidisciplinary colleagues and managers in an established organisation (Neidlinger, Drews et al., 1992). Entrepreneurs who start new ventures are driven by motivations (McMullen & Shepherd, 2006). This aspect further separates business owners from employees, as the literature on business owners focuses more on entrepreneurial motivations. Employees may not be dependent upon motivations to the same extent as those leaving their traditional jobs for business, as managers may influence their entrepreneurial actions (Åmo, 2006). Two entrepreneurial nursing roles emerge from these differences: the nurse entrepreneur and the nurse intrapreneur. The first drives an entrepreneurial process through new venture creation, the other initiates an entrepreneurial process as an employee.

#### **Nurse Entrepreneurs**

Nurse entrepreneurs establish new ventures to create new value. Some care for patients through their businesses, for instance, by establishing healthcare institutions or home visit services (Ippoliti et al., 2018; Rolfe et al., 2008), whereas others establish ventures that offer products and services excluding direct care. They may work with retail, wholesale and equipment rentals (Andrade et al., 2015; Thompson, 2019) or establish non-profit initiatives in the realm of social entrepreneurship (Moshabela et al., 2013). Nurse entrepreneurs often have vast knowledge and experience from their clinical work – they seek entrepreneurship as an escape from traditional, stressful employment (e.g. Roggenkamp & White, 1998; Waite, 2019; Warmelink et al., 2015). Their lack of business knowledge is a challenge – nurse entrepreneurs seldom have access to entrepreneurship courses and networks (Wall, 2015; Wilson et al., 2003). They also face financial risks and legal challenges whilst managing daily operations, overseeing sales and marketing and leading potential employees (e.g. Elango et al., 2007; Rolfe et al., 2008; Sharp & Monsivais, 2014; Wilson et al., 2004). Juggling different roles within a small company (acting as an owner, manager, clinical nurse, colleague

and friend), as well as the ethical considerations of starting a business in the care sector, may lead to personal conflicts (Elango et al., 2007; Vannucci & Weinstein, 2017; Wall, 2013).

### **Nurse Intrapreneurs**

The process of nurses acting entrepreneurially through their employment in established organisations and institutions is called intrapreneurship (Antoncic & Hisrich, 2003). Nurse intrapreneurs are often clinically experienced and educated. They seldom have business skills; however, some intrapreneurial nurses receive training from their employers (Mitchell et al., 2010). As nurse intrapreneurs do not leave traditional employment, they experience fewer risks and financial worries than nurse entrepreneurs. Nurses often lack the authority to create changes (Austin et al., 2006), meaning that nurse intrapreneurs must engage their peers and managers in their entrepreneurial processes. They must understand the organisation as a whole and establish their initiative in line with the employer organisation. Thus, nurse intrapreneurs are guided and inspired by managers who facilitate strategic development (Åmo, 2006; Bagheri & Akbari, 2018; Mitchell et al., 2010; Neidlinger, Bartleson, et al., 1992; Neidlinger, Drews, et al., 1992).

### **Limitations**

This is a systematic literature review of research from one database: Scopus. Papers about entrepreneurial nursing that were not available through Scopus may exist and could have contributed to the review. Furthermore, excluding non-empirical papers and non-research may have excluded valuable notions of entrepreneurial nursing from a conceptual or discursive viewpoint. Including only English literature may also have excluded important papers in different languages. I lean on papers from the research field of entrepreneurship. By not choosing innovation as a search term, I may have lost cues of entrepreneurial nurses described as change agents or innovators – however, innovation and entrepreneurship are separate research fields (Landström et al., 2012), and there was a need for a review focused on entrepreneurship literature.

### **Conclusion**

This is a systematic literature review of 647 documents about entrepreneurial nursing, with an inductive thematic analysis of 37 empirical papers. I explored the contexts, knowledge and skills, activities, barriers and motivations of entrepreneurial nurses described in the literature. I propose nurse entrepreneurs and nurse intrapreneurs to be distinct entrepreneurial nursing roles. The two roles cover all aspects of entrepreneurial nursing whilst also being clearly separated. The two roles are empirically rooted in the field of nursing and theoretically rooted in the field of entrepreneurship. This review contributes to the nursing profession by clarifying terms and including all the nuances of entrepreneurial nursing in two separate roles. Knowledge about entrepreneurial nursing may lead nurses to choose it, enable managers to facilitate it, help educators to teach it and encourage colleagues to support it. Future empirical research should target each entrepreneurial role to explore more nuances in differences and common denominators. The recent literature presents few examples of nurse entrepreneurs with ventures that are not delivering care services, and there is a need for more research to exemplify the vast opportunities for venture creation in healthcare. Future

research should also investigate entrepreneurial nursing from the research field of innovation, exploring the role of innovation in entrepreneurial nursing processes.

#### **Implications for Nursing Management**

Entrepreneurial processes do not happen in a vacuum (Bryat & Julien, 2001), and the meanings and actions of nurse managers, educators and colleagues may impact entrepreneurial nurses' attempts to create change (Dackert, 2010; McSherry et al., 2012; Weng et al. 2015). Nurse managers are important facilitators of entrepreneurial processes. Thus, the insights from this paper will be valuable for nurse managers leading aspiring entrepreneurial employees, for managers facilitating their employees' journey into entrepreneurship or intrapreneurship and for both parties navigating through barriers and motivations.

Accepted Article

**Appendix 1: Literature Overview**

## References

- Åmo, B. W. (2006). Employee innovation behaviour in health care: The influence from management and colleagues. *International Nursing Review*, 53, 231–237.
- Anderson, A. R., & Jack, S. (2002). The effects of embeddedness on the entrepreneurial process. *Journal of Business Venturing*, 17(5), 467–487. <https://pdf.sciencedirectassets.com/271663/1-s2.0-S0883902600X00900/1-s2.0-S0883902601000763/main.pdf?x-amz-security-token=AgoJb3JpZ2luX2VjEFgaCXVzLWVhc3QtMSJHMEUCIEsMkxdsiJxDgD6R4PljkLAqy0nqkmMhwFcoSc%2BgFSTFAIEAoPdj25H5nI7XORJQVoM%2B1B3zqr1tpUep%2B9wCSi>
- Anderson, A. R., & Miller, C. J. (2003). “Class matters”: Human and social capital in the entrepreneurial process. *Journal of Socio-Economics*, 32(1), 17–36. [https://doi.org/10.1016/S1053-5357\(03\)00009-X](https://doi.org/10.1016/S1053-5357(03)00009-X)
- Andrade, A. de C., Dal Ben, L. W., & Sanna, M. C. (2015). Entrepreneurship in nursing: Overview of companies in the state of São Paulo. *Revista Brasileira de Enfermagem*, 68(1), 35–39. <https://doi.org/10.1590/0034-7167.2015680106p>
- Antonicic, B., & Hisrich, R. D. (2003). Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, 10(1), 7–24. <https://doi.org/10.1108/14626000310461187>
- Arnaert, A., Mills, J., Bruno, F. S., & Ponzoni, N. (2018). The educational gaps of nurses in entrepreneurial roles: An integrative review. *Journal of Professional Nursing*, 34(6), 494–501. <https://doi.org/10.1016/J.PROFNURS.2018.03.004>
- Austin, L., Luker, K., & Ronald, M. (2006). Clinical nurse specialists as entrepreneurs: Constrained or liberated. *Journal of Clinical Nursing*, 15, 1540–1549. <https://doi.org/10.1111/j.1365-2702.2006.01576.x>
- Bagheri, A., & Akbari, M. (2018). The impact of entrepreneurial leadership on nurses’ innovation behavior. *Journal of Nursing Scholarship*, 50(1), 28–35. <https://doi.org/10.1111/jnu.12354>
- Bergmann, P. A. (1998). Invest in yourself: Lessons learned from nurse entrepreneurs. *Nursing Forum*, 33(3), 17–21.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Psychiatric Quarterly*, 3(2), 77–101. <https://doi.org/10.1111/j.1460-2466.1978.tb01621.x>
- Bruyat, C., & Julien, P. A. (2001). Defining the field of research in entrepreneurship. *Journal of Business Venturing*, 16(2), 165–180. [https://doi.org/10.1016/S0883-9026\(99\)00043-9](https://doi.org/10.1016/S0883-9026(99)00043-9)
- Caffrey, R. A. (2005). Independent community care gerontological nursing: BECOMING AN ENTREPRENEUR. *Journal of Gerontological Nursing*, 31(8), 12–17. <https://search.proquest.com/docview/204159541/fulltextPDF/A2A9EF94DD54960PQ/1?accountid=12870>
- Crofts, A. (1994). Entrepreneurship: The realities of today. *Journal of Nurse-Midwifery*, 39(1), 39–42.
- da Silva, J. A. L., & Saldanha Portelada, A. F. (2019). Mobbing and its impact on interpersonal relationships at the workplace. *Journal of Interpersonal Violence*, 34(13), 2797–2812. <https://doi.org/10.1177/0886260516662850>
- Douglas, M. R. (2011). Opportunities and challenges facing the future global nursing and midwifery workforce. *Journal of Nursing Management*, 19, 695–699. <https://doi.org/10.1111/j.1365-2834.2011.01302.x>

- Drennan, V., Davis, K., Goodman, C., Humphrey, C., Locke, R., Mark, A., . . . Traynor, M. (2007). Entrepreneurial nurses and midwives in the United Kingdom: an integrative review. *Journal of Advanced Nursing*, *60*(5), 459–469. <https://doi.org/10.1111/j.1365-2648.2007.04458.x>
- Elango, B., Hunter, G. L., & Winchell, M. (2007). Barriers to nurse entrepreneurship: A study of the process model of entrepreneurship. *Journal of the American Academy of Nurse Practitioners*, *19*(4), 198–204. <https://doi.org/10.1111/j.1745-7599.2007.00215.x>
- Farmer, J., & Kilpatrick, S. (2009). Are rural health professionals also social entrepreneurs? *Social Science & Medicine*, *69*(11), 1651–1658. <https://doi.org/10.1016/J.SOCSCIMED.2009.09.003>
- Fletcher, S. N. E. (2010). *Nurse faculty and students' behavioral intentions and perceptions toward entrepreneurship in nursing*. University of Rochester.
- Gibson, T. (2013). The entrepreneurial rationalities of governing and the construction of the enterprising nurse. *Qualitative Health Research*, *23*(1), 93–104. <https://doi.org/10.1177/1049732312467233>
- Hughes, F. (2006). Nurses at the forefront of innovation. *International Nursing Review*, *53*(2), 94–101. <https://doi.org/10.1111/j.1466-7657.2006.00463.x>
- Ippoliti, R., Falavigna, G., Montani, F., & Rizzi, S. (2018). The private healthcare market and the sustainability of an innovative community nurses programme based on social entrepreneurship – CoSENSo project. *BMC Health Services Research*, *18*(1), 689. <https://doi.org/10.1186/s12913-018-3513-z>
- Jahani, S., Babazadeh, M., Haghghi, S., & Cheraghian, B. (2018). The effect of entrepreneurship education on self-efficacy beliefs and entrepreneurial intention of nurses. *Journal of Clinical and Diagnostic Research*, *12*(6), 18–21. <https://doi.org/10.7860/JCDR/2018/31525.11654>
- Kingma, M. (1998). Marketing and nursing in a competitive environment. *International Nursing Review*, *45*(2), 45–50.
- Kirkman, A., Wilkinson, J., & Scahill, S. (2018). Thinking about health care differently: Nurse practitioners in primary health care as social entrepreneurs. *Journal of Primary Health Care*, *10*(4), 331–337. <https://doi.org/10.1071/HC18053>
- Landström, H., Harirchi, G., & Åström, F. (2012). Entrepreneurship: Exploring the knowledge base. *Research Policy*, *41*(7), 1154–1181. <https://doi.org/10.1016/j.respol.2012.03.009>
- Lyden, C. (2017). *Job satisfaction and empowerment of self-employed nurse practitioners: A mixed methods study*. Duquesne University. <https://doi.org/10.1097/JXX.0000000000000007>
- Marques, C. S., Marques, C. P., Ferreira, J. J. M., & Ferreira, F. A. F. (2019). Effects of traits, self-motivation and managerial skills on nursing intrapreneurship. *International Entrepreneurship and Management Journal*, *15*, 733–748. <https://doi.org/10.1007/s11365-018-0520-9>
- Marques, C. S., Valente, S., & Lages, M. (2018). The influence of personal and organisational factors on entrepreneurship intention: An application in the health care sector. *Journal of Nursing Management*, *26*(6), 696–706. <https://doi.org/10.1111/jonm.12604>
- McMullen, J. S., & Dimov, D. (2013). Time and the entrepreneurial journey: The problems and promise of studying entrepreneurship as a process. *Journal of Management Studies*, *50*(8), 1481–1512. <https://doi.org/10.1111/joms.12049>

- Accepted Article
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, *31*(1), 132–152.  
<https://www.jstor.org/stable/pdf/20159189.pdf>
- McSherry, Rob, & Douglas, M. (2011). Innovation in nursing practice: A means to tackling the global challenges facing nurses, midwives and nurse leaders and managers in the future. *Journal of Nursing Management*, *19*(2), 165–169. <https://doi.org/10.1111/j.1365-2834.2011.01241.x>
- McSherry, R., Pearce, P., Grimwood, K., & McSherry, W. (2012). The pivotal role of nurse managers, leaders and educators in enabling excellence in nursing care. *Journal of Nursing Management*, *(20)*, 7–19.
- Mitchell, T., Butler-Williams, C., Easton, K., Ingledew, I., Parkin, D., Wade, S., & Warner, R. (2010). The consultant nurse – Expert practitioner and much more. *British Journal of Nursing*, *19*(8), 481–487.
- Moshabela, M., Gitomer, S., Qhibi, B., & Schneider, H. (2013). Development of non-profit organisations providing health and social services in rural South Africa: A three-year longitudinal study. *PLoS ONE*, *8*(12), 1–8. <https://doi.org/10.1371/journal.pone.0083861>
- Neidlinger, S. H., Bartleson, B. J., Drews, N., & Hukari, D. (1992). Venture actualization in nursing: An analysis of innovation. *The Journal of Nursing Administration*, *22*(7/8), 65–70.
- Neidlinger, S. H., Drews, N., Hukari, D., Bartleson, B. J., Abbott, F. K., Harper, R., & Lyon, J. (1992). Components of nurse innovation: A model from acute care hospitals. *Advances in Nursing*, *15*(2), 39–51.
- Nightingale, F. (1859). *Notes on nursing: What it is, and what it is not*. (D. Appleton and Company, Ed.) (1st American ed.). New York. <http://sciencegraph.org/documents/Notes-on-nursing.pdf>
- Richter, S. A., dos Santos, E. P., Kaiser, D. E., Capellari, C., & Ferreira, G. E. (2019). Being an entrepreneur in nursing: Challenges to nurses in a strategic leadership position. *Acta Paulista de Enfermagem*, *32*(1), 46–52. <https://doi.org/10.1590/1982>
- Roggenkamp, S. D., & White, K. R. (1998). Four nurse entrepreneurs: What motivated them to start their own businesses. *Health Care Management Review*, *23*(3), 67–75.
- Rolfe, B., Leshabari, S., Rutta, F., & Murray, S. F. (2008). The crisis in human resources for health care and the potential of a “retired” workforce: Case study of the independent midwifery sector in Tanzania. *Health Policy and Planning*, *23*(2), 137–149. <https://doi.org/10.1093/heapol/czm049>
- Sanders, E., & Kingma, M. (2012). *Handbook on entrepreneurial practice: Nurses creating opportunities as entrepreneurs and intrapreneurs*. [https://www.icn.ch/sites/default/files/inline-files/2012\\_Handbook\\_entrepreneurial\\_practice\\_eng.pdf](https://www.icn.ch/sites/default/files/inline-files/2012_Handbook_entrepreneurial_practice_eng.pdf)
- Sankelo, M., & Åkerblad, L. (2008). Nurse entrepreneurs’ attitudes to management, their adoption of the manager’s role and managerial assertiveness. *Journal of Nursing Management*, *16*, 829–836.  
<https://doi.org/10.1111/j.1365-2834.2008.00917.x>
- Sankelo, M., & Åkerblad, L. (2009). Nurse entrepreneurs’ well-being at work and associated factors. *Journal of Clinical Nursing*, *18*, 3190–3199. <https://doi.org/10.1111/j.1365-2702.2008.02666.x>
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *The Academy of Management Review*, *25*(1), 217–226. <https://doi.org/10.2307/259271>
- Sharp, D. B., & Monsivais, D. (2014). Decreasing barriers for nurse practitioner social entrepreneurship. *Journal*

of the American Association of Nurse Practitioners, 26, 562–566. <https://doi.org/10.1002/2327-6924.12126>

Sundin, E., & Tillmar, M. (2008). A nurse and a civil servant changing institutions: Entrepreneurial processes in different public sector organizations. *Scandinavian Journal of Management*, 24(2), 113–124.

<https://doi.org/10.1016/J.SCAMAN.2008.03.006>

Thompson, M. (2019). Everything changes to stay the same: Persistent global health inequalities amidst new therapeutic opportunities and mobilities for Filipino nurses. *Mobilities*, 14(1), 38–53.

<https://doi.org/10.1080/17450101.2018.1518841>

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207–222.

<https://doi.org/10.1111/1467-8551.00375>

Vannucci, M. J., & Weinstein, S. M. (2017). The nurse entrepreneur: Empowerment needs, challenges, and self-care practices. *Nursing Research and Reviews*, 7, 57–66.

Vogel, G., & Doleysh, N. (1994). *Entrepreneuring: A nurse's guide to starting a business* (2nd ed.). National League for Nursing Press.

Waite, A. (2019). Highlighting the lived experience of nurse practitioners in independent practice. *Journal for Nurse Practitioners*, 15(10), 787–791. <https://doi.org/10.1016/j.nurpra.2019.07.020>

Wall, S. (2013). “We inform the experience of health”: Perspectives on professionalism in nursing self-employment. *Qualitative Health Research*, 23(7), 976–988. <https://doi.org/10.1177/1049732313490077>

Wall, S. (2014). Self-employed nurses as change agents in healthcare: Strategies, consequences, and possibilities. *Journal of Health Organization and Management*, 28(4), 511–531.

<https://doi.org/10.1108/JHOM-03-2013-0049>

Wall, S. (2015). Dimensions of precariousness in an emerging sector of self-employment: A study of self-employed nurses. *Gender, Work and Organisation*, 22(3), 221–236.

<http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=2&sid=167db070-daf0-4653-ac0b-3b697b7ce00f%40sdc-v-sessmgr03>

Warmelink, J. C., Wiegers, T. A., de Cock, T. P., Spelten, E. R., & Hutton, E. K. (2015). Career plans of primary care midwives in the Netherlands and their intentions to leave the current job. *Human Resources for Health*, 13(1), 1–10. <https://doi.org/10.1186/s12960-015-0025-3>

Wilson, A. (2003). *Self-employed nurse entrepreneurs expanding the realm of nursing practice: A journey of discovery*. The University of Adelaide, Australia.

<https://digital.library.adelaide.edu.au/dspace/bitstream/2440/37903/8/02whole.pdf>

Wilson, A., & Averis, A. (2002). Facets of private practice nursing: A conceptual model. *Collegian*, 9(2), 16–21.

Wilson, A., Averis, A., & Walsh, K. (2003). The influences on and experiences of becoming nurse entrepreneurs: A Delphi study. *International Journal of Nursing Practice*, 9, 236–245. <https://doi.org/10.1046/j.1440-172X.2003.00426.x>

Wilson, A., Averis, A., & Walsh, K. (2004). The scope of private practice nursing in an Australian sample. *Public Health Nursing*, 21(5), 488–494. <https://doi.org/10.1111/j.0737-1209.2004.021511.x>



Wilson, A., Whitaker, N., & Whitford, D. (2012). Rising to the challenge of health care reform with entrepreneurial and intrapreneurial nursing initiatives. *Online Journal of Issues in Nursing*, 17(2), 1–12.  
<https://doi.org/10.3912/OJIN.Vol17No02Man05>

[Appendix 1: Literature Overview]

Citation	Journal	Method	Study topic	Definition of entrepreneurship	Author specialisation	Empirical country
(Andrade, Dal Ben, & Sanna, 2015)	Revista brasileira de enfermagem	Quant. Registry data. N= 196 nursing companies.	Entrepreneurship.	Not defined.	Nursing	Brazil
(Austin, Luker, & Ronald, 2006)	Journal of Clinical Nursing	Qual. Interviews and observation. N=22 clinical nurse specialists.	Entrepreneurial characteristics.	Not defined.	Nursing	UK
(Bagheri & Akbari, 2018)	Journal of Nursing Scholarship	Quant. Questionnaire, 273 nurses.	Innovation work behaviour + innovation + entrepreneurial leadership	Not defined.	Entrepreneurship	Iran
(Caffrey, 2005)	Journal of Gerontological Nursing	Qual. Interviews. N= 7 nurses + 6 clients.	Community care nursing.	Not defined.	Nursing	USA
(Crofts, 1994)	Journal of Nurse-Midwifery	Qual. Single Case study. Interviews. N=1.	Nurse practitioners.	Not defined.	Nursing	USA
(da Silva João & Saldanha Portelada, 2019)	Journal of Interpersonal Violence	Quant. 3227 nurses.	Nursing profession + mobbing.	Not defined.	Nursing, psychology	Portugal
(Dehghanzadeh et al., 2016)	Acta Medica Iranica	Quant. Questionnaire. N=58 nurses + N=167 nurses	Personality characteristics of entrepreneurs	Nurse entrepreneurs have an autonomous function to develop nursing practice models in hospital settings.	Environmental health engineering	Iran
(Elango, Hunter, & Winchell, 2007)	Journal of the American Academy of Nurse Practitioners	Qual. 2 focus groups. N=5 nurses + N= 20 nurse practitioner students	Entrepreneurial creation. Opportunity recognition, entry barriers, operational competencies.	A nurse entrepreneur is an autonomous independent nurse working directly with clients in a private practice.	Economics	USA

Citation	Journal	Method	Study topic	Definition of entrepreneurship	Author specialisation	Empirical country
(Farmer & Kilpatrick, 2009)	Social Science and Medicine	Qual. Interviews. N=38 health professionals	Social entrepreneurship.	Not defined.	Business, law, education	UK / Australia
(Gibson, 2013)	Qualitative Health Research	Qual. Discursive analysis. Documents + interviews, N=26 nurses.	Nursing subjectivity. Governmentality.	Not defined.	Nursing	Australia
(Ippoliti, Falavigna, Montani, & Rizzi, 2018)	BMC Health Services Research	Quant. Binomial regression models. EU-project.	Social entrepreneurship.	Not defined.	Economics	Italy
(Jahani, Babazadeh, Haghighi, & Cheraghian, 2018)	Journal of Clinical and Diagnostic Research	Quant. Questionnaire. 76 nurses.	Self-efficacy.	Not defined.	Nursing	Iran
(Kirkman, Wilkinson, & Scahill, 2018)	Journal of Primary Health Care	Qual. Interviews with 7 nurse practitioners.	Social capital + social entrepreneurship	Nurse practitioners work autonomously as lead healthcare providers for healthcare consumers.	Nursing, management	New Zealand
(Lyden, 2017)	Journal of the American Association of Nurse Practitioners	Dissertation. Mixed-methods. Survey (n=142). Interviews (n=13).	Organizational empowerment + job satisfaction.	Nurse practitioners own private practices. They are reimbursed for the health care they provide.	Nursing	USA
(Marques, Marques, Ferreira, & Ferreira, 2019)	International Entrepreneurship and Management Journal	Quant. Structural equation model, 536 nurses.	Intrapreneurship.	An intrapreneur creates innovation within the healthcare organisation. (Manion, 1990)	Innovation, management	Portugal
(Marques, Valente, & Lages, 2018)	Journal of Nursing Management	Quant. Questionnaire. N=638 nurses	Entrepreneurial intentions + intrapreneurship.	Not defined.	Nursing, management	Portugal
(Mitchell et al., 2010)	British Journal of Nursing	Qual. Written accounts from clinical nurse specialists. N=6.	Advanced nursing practice.	Not defined.	Nursing	UK

Citation	Journal	Method	Study topic	Definition of entrepreneurship	Author specialisation	Empirical country
(Moshabela, Gitomer, Qhibi, & Schneider, 2013)	PLoS ONE	Qual. Longitudinal. Interviews with people in 61 organisations. Among these, 5 nurses.	Lay health workers. Non-profit organisations.	Not defined.	Medicine	South Africa
(Neidlinger, Bartleson et al., 1992)	Journal of Nursing Administration	Qual. Interviews. N= 10 nurse executives + 30 nurse intrapreneurs	The venture actualization in a nursing model	Not defined.	Nursing	USA
(Neidlinger, Drews et al., 1992)	Advances in Nursing Science	Qual. Interviews. N= 10 nurse executives + 30 nurse intrapreneurs	Innovation. Intrapreneurship.	Nurse innovators are intrapreneurs. A nurse innovation is a venture, new to one's hospital setting. (Pinchot, 1985, Rogers 1983)	Nursing	USA
(Richter, dos Santos, Kaiser, Capellari, & Ferreira, 2019)	ACTA Paulista de Enfermagem	Qual. Interviews, 12 nurse leaders.	Gender + social entrepreneurship	Not defined.	Nursing	Brazil
(Roggenkamp & White, 1998)	Health Care Management Review	Qual. Interviews and observations. N= 4 nurse entrepreneurs.	Management and organizational theory.	An entrepreneur perceives an opportunity and creates an organization to pursue it (Bygrave & Hofer, 1991)	Nursing and health	USA
(Rolfe, Leshabari, Rutta, & Murray, 2008)	Health Policy and Planning	Qual. Multiple case study, 9 case districts. 58 focus group discussions and 125 interviews.	Private practice + private provision + maternity care	Not defined.	Nursing and health	Tanzania
(Sankelo & Åkerblad, 2009)	Journal of Clinical Nursing	Quant. Questionnaire. N= 84 nurses	Well-being at work + Job demands	Not defined.	Nursing	Finland
(Sankelo & Åkerblad, 2008)	Journal of Nursing Management	Quant. Questionnaire. N= 84 nurses	Management	Not defined.	Nursing	Finland

Citation	Journal	Method	Study topic	Definition of entrepreneurship	Author specialisation	Empirical country
(Sharp & Monsivais, 2014)	Journal of the American Association of Nurse Practitioners	Qual. Interviews. N=24 nurse practitioners.	Transition to rural practice for nurse practitioners	Not defined.	Nursing	USA
(Sundin & Tillmar, 2008)	Scandinavian Journal of Management	Qual. Longitudinal. Interviews. N=2.	Institutional / organizational entrepreneurship	Not defined.	administration	Sweden
(Thompson, 2019)	Mobilities	Qual. Interviews, 35 nurses.	Nursing + migration	Not defined.	Development geography	Philippines
(Waite, 2019)	Journal for Nurse Practitioners	Qual. 17 nurse practitioners.	Stark's theory of meaning.	Nurse practitioners who (...) create marketable services are considered innovative nurse entrepreneurs (Wallis, 2013)	Nursing	USA
(Wall, 2015)	Gender, Work and Organization	Qual. Interviews. N= 20 self-employed nurses	Female entrepreneurship. Precariousness. Self-employment.	A self-employed nurse runs a private or independent practice.	Nursing, sociology	Canada
(Wall, 2014)	Journal of Health, Organisation and Management	Qual. Interviews. N= 20 self-employed nurses	Institutional theory. Change agents + change strategies.	Not defined.	Nursing, sociology	Canada
(Wall, 2013a)	Nursing leadership (Toronto, Ont.)	Qual. Interviews. N= 20 self-employed nurses	Healthcare structure. Self-employment.	Not defined.	Nursing, sociology	Canada
(Wall, 2013b)	Qualitative Health Research	Qual. Interviews. N= 20 self-employed nurses	The nursing profession.	Private practice means that employed nurses function independently. Self-employment means being one's own boss.	Nursing, sociology	Canada
(Warmelink, Wieggers, de Cock, Spelten, & Hutton, 2015)	Human Resources for Health	Quant. Questionnaire. N=98 primary care midwives.	Midwife profession. Career intentions.	Not defined.	Nursing, psychology	Netherlands

Citation	Journal	Method	Study topic	Definition of entrepreneurship	Author specialisation	Empirical country
(Wilson, Averis, & Walsh, 2004)	International Journal of Nursing Practice	Quant. Questionnaire. N=54 nurse entrepreneurs.	Entrepreneurship.	Entrepreneurship is a process. Not confined to private practice.	Nursing	Australia
(Wilson, Averis, & Walsh, 2003)	Public Health Nursing	Mixed method. Delphi. N=59 nurses in private practice	Nurse entrepreneurship. Private practice.	A nurse entrepreneur develops, organizes, manages and assumes the risks of a business (ICN, 1994).	Nursing	Australia
(Åmo, 2006)	International Nursing Review	Quant. Questionnaire. N=555 nurses and other healthcare workers.	Corporate entrepreneurship. Important others. Employee innovation behaviour.	Not defined.	Entrepreneurship	Norway

Table 1: Inductive Thematic Analysis

Main themes	Empirical context							Knowledge			Activities					Barriers				Motivations							
	Sub-themes	Rural area	Urban area	Business owner	Employee	Private clinic/service	Business	Higher education institutions	Specialised in clinical nursing*	Entrepreneurship	Management	Clinical nursing/consultancy	Opportunity recognition/creation	Networking/collaboration	Management/administration	Marketing/sales/funding	Research/education/training	Hierarchy/power/tradition	Finance/law/reimbursement	Lack of knowledge and skills	Personal conflicts/negativity	Time management	Improve the quality of care	Maintain professional identity	Improve work situation	Achieve financial gain	Achieve self-realisation
(Andrade et al., 2015)		x	X				x				x	x		x	x	x							x		x	x	
(Austin, Luker, & Ronald, 2006)		x			x			x			x	x	x				x						x	x	x		
(Bagheri & Akbari, 2018)			x		x			x			x	x															
(Caffrey, 2005)		x		x		x					x			x	x	x	x	x				x					x
(Crofts, 1994)				x		x		x	x		x							x	x								
(da Silva & Saldanha Portelada, 2019)							X				x	x									x						
(Dehghanzadeh et al., 2016)			x		x						x																
(Elango et al., 2007)				X	x		x	x		x	x	x				x	x	x	x	x							
(Farmer & Kilpatrick, 2009)		x			x						x	x	x	x	x								x	x	x		x
(Gibson, 2013)					x						x			x								x					
(Ippoliti et al., 2018)		x		x		x					x												x				
(Jahani et al., 2018)			x		x				x		x					x			x								
(Kirkman et al., 2018)		x		x	x			x			x		x										x			x	
(Lyden, 2017)		x	x	x		x		x			x	x		x			x		x		x	x	x	x	x	x	x

Main themes	Empirical context							Knowledge			Activities					Barriers				Motivations							
	Sub-themes	Rural area	Urban area	Business owner	Employee	Private clinic/service	Business	Higher education institutions	Specialised in clinical nursing*	Entrepreneurship	Management	Clinical nursing/consultancy	Opportunity recognition/creation	Networking/collaboration	Management/administration	Marketing/sales/funding	Research/education/training	Hierarchy/power/tradition	Finance/law/reimbursement	Lack of knowledge and skills	Personal conflicts/negativity	Time management	Improve the quality of care	Maintain professional identity	Improve work situation	Achieve financial gain	Achieve self-realisation
(Marques et al., 2019)				x				x		x	x						x		x								x
(Marques et al., 2018)				x				x	x	x	x						x							x	x	x	x
(Mitchell et al., 2010)				x				x	x		x	x		x		x							x	x			
(Moshabela et al., 2013)	x		x		x			x	x		x	x	x										x	x	x		x
(Neidlinger, Bartleson et al., 1992)				x				x		x	x	x	x	x	x	x					x			x			
(Neidlinger, Drews et al., 1992)				x				x		x	x	x	x	x													
(Richter, et al., 2019)	x			x				x	x		x	x	x	x		x	x	x				x	x	x		x	
(Roggenkamp & White, 1998)			x		x	x		x	x		x	x	x	x	x	x			x				x	x	x	x	x
(Rolfe et al., 2008)	x	x	x		x			x			x				x		x	x	x				x	x		x	
(Sankelo & Åkerblad, 2009)			x		x			x	x	x	x	x	x	x	x						x			x	x	x	x
(Sankelo & Åkerblad, 2008)			x		x			x	x	x	x			x					x	x							
(Sharp & Monsivais, 2014)	x		x		x			x			x		x	x	x			x	x	x	x	x					



Main themes	Empirical context							Knowledge			Activities					Barriers				Motivations						
Sub-themes	Rural area	Urban area	Business owner	Employee	Private clinic/service	Business	Higher education institutions	Specialised in clinical nursing*	Entrepreneurship	Management	Clinical nursing/consultancy	Opportunity recognition/creation	Networking/collaboration	Management/administration	Marketing/sales/funding	Research/education/training	Hierarchy/power/tradition	Finance/law/reimbursement	Lack of knowledge and skills	Personal conflicts/negativity	Time management	Improve the quality of care	Maintain professional identity	Improve work situation	Achieve financial gain	Achieve self-realisation
(Sundin & Tillmar, 2008)				x				x			x	x	x	x			x							x		
(Thompson, 2019)		x	X			x						x		x	x								x	x	x	x
(Waite, 2019)			X		x			x			x	x		x						x		x	x	x	x	x
(Wall, 2015)			X		x			x			x	x	x	x	x		x	x		x		x	x	x	x	x
(Wall, 2014)			X		x			x			x	x	x	x	x		x	x		x		x	x	x	x	x
(Wall, 2013a)			X		x			x			x	x		x	x		x	x		x		x	x	x		x
(Wall, 2013b)			X		x			x			x	x		x	x		x	x		x		x	x	x		x
(Warmelink et al., 2015)	x	x	x	X	x			x			x													x		
(Wilson et al., 2004)	x	x	X		x			x			x	x		x	x			x								
(Wilson, 2003)			X		x		x	x			x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
(Åmo, 2006)	x			x							x			x			x									
In sum	13	9	22	18	18	4	2	27	9	7	36	23	14	23	16	11	15	12	10	9	8	18	16	19	12	16

\*Specialised in clinical nursing: the nurses described having continuing clinical education (e.g. as a clinical nurse specialist, a nurse practitioner or a midwife) or having extensive experience in clinical nursing (e.g. more than one decade).

Table 2: Comparing Employment Status

Difference	Employee	Business owners	Sub-themes	Main themes	
				Knowledge	Activities
15%	67%	82%	Specialised in clinical nursing*	Knowledge	
1%	22%	23%	Entrepreneurship		
14%	28%	14%	Management		
4%	100%	96%	Clinical nursing/consultancy	Activities	
7%	61%	68%	Opportunity recognition/creation		
3%	39%	36%	Networking/collaboration		
24%	44%	68%	Management/administration		
42%	17%	59%	Marketing/sales/funding		
4%	28%	32%	Research/education/training		
2%	39%	41%	Hierarchy/power/tradition		Barriers
39%	11%	50%	Finance/law/reimbursement		
19%	17%	36%	Lack of knowledge and skills		
25%	11%	36%	Personal conflicts/negativity		
16%	11%	27%	Time management		
36%	28%	64%	Improve the quality of care	Motivations	
22%	28%	50%	Maintain professional identity		
20%	39%	59%	Improve work situation		
39%	11%	50%	Achieve financial gain		
33%	22%	55%	Achieve self-realisation		

Figure 1

*The Systematic Review Process*