Entrepreneurship and nurse entrepreneurs lead the way to the development of nurses’ role and professional identity in clinical practice

A qualitative study

Jakobsen, Lizette; Wacher Qvistgaard, Laura; Trettin, Bettina; Juel Rothmann, Mette

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Title

Entrepreneurship and nurse entrepreneurs lead the way to development of nurses’ role and professional identity in clinical practice: Qualitative study

Running title

Entrepreneurship in the nursing profession

Authors

Jakobsen, Lizette, Department of Clinical Research, Faculty of Health Science, University of Southern Denmark, Clinical Institute

Qvistgaard, Laura Wacher, Department of Clinical Research, Faculty of Health Science, University of Southern Denmark, Clinical Institute

Trettin, Bettina, Odense University hospital
Department of Dermatology and Allergy Centre, Odense University Hospital
Department of Clinical Research, University of Southern Denmark

Rothmann, Mette Juël (Associate Professor)
Centre of Innovative Medical Technology, Odense University Hospital
Department of Clinical Research, Faculty of Health Science, University of Southern Denmark
Department of Endocrinology, Odense University Hospital

Corresponding author

Lizette Jakobsen, innovation consultant, cand. cur., Department of Health Education, UCL University College, Niels Bohrs Allé 1, 5230 Odense M, The Region of Southern Denmark, Denmark
Email: lizettejakobsen@gmail.com or lizettejakobsen@hotmail.com
Telephone: +45 22850500

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Study concept and design: Lizette Jakobsen, Laura Qvistgaard, Bettina Trettin, Mette Juel Rothmann. Analysis and interpretation of data: Lizette Jakobsen, Laura Qvistgaard, Bettina Trettin, Mette Juel Rothmann. Drafting of the manuscript: Lizette Jakobsen. Critical revision of the manuscript for important intellectual content: Bettina Trettin, Mette Juel Rothmann. Study supervision: Bettina Trettin, Mette Juel Rothmann.
Title
Entrepreneurship and nurse entrepreneurs lead the way to development of nurses’ role and professional identity in clinical practice

Abstract
Aims and objectives: To explore experiences and perspectives of nurses’ transition into entrepreneurship in a clinical and cultural nursing setting and the impact of entrepreneurship on nurses’ role and professional identity.

Background: Entrepreneurship is a relatively unknown phenomenon in international nursing research, and the prevalence of entrepreneurial nurses is only 0.5–1% of all working nurses globally. Unfortunately, several barriers occur within the healthcare system and existing nursing culture, which may affect the potential of bringing entrepreneurship into the nursing profession.

Design: The qualitative study used a phenomenological–hermeneutical approach based on an interpretative phenomenological analysis and COREQ-guided reporting.
Methods: Nine individual, semi-structured interviews were conducted face to face (n=6) and by telephone (n=3) with Danish nurse entrepreneurs between February and March 2019.

Results: The analysis revealed four themes: 1) prejudice towards entrepreneurship; 2) to become an entrepreneur in a nursing culture; 3) rebellion against the traditional role as employee; and 4) challenged professional identity and new professional roles.

Conclusion: Nurse entrepreneurs are caught between traditional and new ways of viewing nursing identity, norms, values, and roles, and they face a conflict of professional values and a stereotyped view of ‘real’ nursing. Our findings show that entrepreneurship entails a huge learning process that develops nurses’ ability to think outside the box in a broader health perspective and challenge the existing nursing culture and role. However, nurse entrepreneurs’ ability to engage in entrepreneurship is compromised by professional values, the duty to behave as a good nurse, and their own prejudices towards entrepreneurs.

Impact: Entrepreneurship and nurse entrepreneurs pose a huge potential development of the nursing role and identity, as they challenge the current view on the nursing profession. This development is important for patients and health professionals, as future health challenges call for new ways of thinking and acting.

Keywords
1. Nurse entrepreneurs
2. Nurses
3. Nursing
4. Entrepreneurs
5. Entrepreneurship
6. Innovation
7. Nursing culture
8. Nursing identity
9. Nursing roles
Introduction

This study explores the experiences and perspectives of nurses transitioning into entrepreneurship within the Danish healthcare system. Unfortunately, several barriers and challenges occur within the healthcare system and existing nursing culture, which may complicate nurses' ability to participate in entrepreneurship. Therefore, in order to investigate the possible impact of entrepreneurship on nurses' role and professional identity, we find it relevant to contribute with knowledge on nurses' transition into entrepreneurship in a clinical and cultural nursing setting.

Background

Entrepreneurship in nursing is a relatively unknown phenomenon in international nursing research. The term entrepreneurship was introduced in literature in 1755 (Nielsen et al., 2014), and within nursing, Florence Nightingale (1820–1910) was identified as the first successful entrepreneur (Boore & Porter, 2011). The definition of entrepreneurship is, ‘When you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural, or social’ (Danish Foundation for Entrepreneurship, 2014, p. 1).

Entrepreneurship uses innovation as a method to be creative, get good ideas and to bring innovation to reality (Nielsen et al., 2014). In contrast to innovation, entrepreneurship cf. the entrepreneurial model consists of the tree phases 1) creation of opportunity, 2) opportunity evaluation, 3) opportunity organization and thereby creates value for others than the inventor itself (Nielsen et al., 2014). Inspired by the two entrepreneurial nursing roles presented in a literature review by Neergård 2020, the term entrepreneurship in this article covers both nurse entrepreneurs and nurse intrapreneurs (Neergård, 2020), e.g. the term entrepreneurship both entails the creation of a new product and/or company inside and outside an already existing organisation (Nielsen et al., 2014).

The prevalence of entrepreneurial nurses is only 0.5–1% of all working nurses globally, whereby there is a huge potential of bringing entrepreneurship into the nursing profession (Statistics Denmark, 2018). This is needed to challenge the view of the nursing profession and meet a future
with a growing elderly population, increased complexity, and higher demands on quality within healthcare, limited financial resources, and labour shortages (Neergård, 2020; Højgaard & Kellberg, 2017). According to international research, many of the challenges within healthcare can be met through innovation and entrepreneurship, where nurses in particular are expected to play an important role (Wilson et al., 2012). This involves openness to new initiatives such as new technology, new ways of working, and other ways of thinking (Brogaard & Petersen, 2014; Waldorff & Dreyer-Kramshøj, 2012).

Nurses get motivated by different factors when they enter entrepreneurship (Neergård, 2020); however, it is common that many nurses do not see themselves fit in the new role as an entrepreneur (Arnaert et al., 2018). The literature suggests that one of the reasons is that entrepreneurs differentiate in personality traits and characteristics compared to the general population (Sankelo & Akerblad, 2008). Entrepreneurs are more risk-averse and innovative in their thinking, are more action- and goal-oriented, and have a higher need to perform compared to the rest of the population. In addition, entrepreneurs have great internal control and incur a great deal of individual responsibility (Nielsen et al., 2014; Sankelo & Akerblad, 2009; Wilson et al., 2012). Nursing entrepreneurs therefore struggle to reconcile these characteristics with their own professional identity and basic values as a nurse (Arnaert et al., 2018). In nursing, the transition from nurse to entrepreneur can create feelings of being trapped between two different roles because the two roles contain opposing cultural values, habits, behaviours, and norms (Sharp & Monsivais, 2014; Wilson et al., 2012). Furthermore, the literature suggests that nurses lack education, knowledge, and skills within business, as the business field is not an integrated part of the nurse’s professional identity (Neergård, 2020; Arnaert et al., 2018; Sharp & Monsivais, 2014). These educational knowledge gaps therefore become a significant challenge for the nurse in the transition to entrepreneur.

According to the International Council of Nurses (ICN), the healthcare sector is slow to adapt to the expanded nursing role that arises when nurses become entrepreneurs (Sanders & Kingma, 2012). One of the reasons may be that entrepreneurship in the nursing profession creates a dilemma for the nurses in order to generate profit and at the same time pursue care. For nurses,
This can be perceived as unethical and result in guilt and internal conflict when their nursing services are equated with financial compensation (Arnaert et al., 2018). As a result, entrepreneurship within nursing is described as a societal taboo (Arnaert et al., 2018). Therefore, at a global level, one of the challenges is a lack of recognition and support for nurses who emerge as independent entrepreneurs both among colleagues and in public (Neergård, 2020; Wall, 2013; Wilson et al., 2012).

Aim

The aim of this study was to explore experiences and perspectives of nurses’ transition into entrepreneurship in a clinical and cultural nursing setting and the impact of entrepreneurship on nurses’ role and professional identity.

Methods

Design

This qualitative study used a phenomenological–hermeneutical approach to investigate nurses’ experiences of becoming entrepreneurs, by using semi-structured interviews based on an interpretative phenomenological analysis (IPA). IPA is based on a phenomenological–hermeneutic approach and was chosen as the analytic framework because it provides a detailed description of the individual’s experiences in relation to a given phenomenon (Smith & Osborn, 2008; Smith et al., 2009). The approach enables a new recognition of how nurses make sense of their personal and social world, nursing role, and professional identity related to their experiences with entrepreneurship (Birkler, 2003; Martinsen & Norlyk, 2011; Smith & Osborn, 2008). The consolidated criteria for reporting qualitative studies (COREQ) guided the reporting of the study (Tong et al., 2007).

Participants

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Participants were recruited using purpose sampling, convenience sampling, and snowball sampling. To identify eligible participants, we searched the Internet and contacted relevant participants by email and LinkedIn. Participants were also identified through contact with innovation departments, and professionals with knowledge of nurse entrepreneurs. In order to sample nurses eligible for interview, we used inclusion- and exclusion criteria as shown in Figure 1.

Table 1: Inclusion- and exclusion criteria

A total of nine out of 13 nurses participated. The selection process is shown in Figure 1.

Figure 1: Participant selection process

Data collection

In total, nine semi-structured interviews were conducted with Danish nursing entrepreneurs between February and March 2019. The interviews lasted between 1 and 1.5 hours and were carried out by the first and second authors, female graduates of Master of Health Science (MHS) and Master of Science (MSc) in Nursing, respectively. Only one interviewer would be present at each interview (Kvale & Brinkmann, 2015), and a senior researcher continuously supervised the interviewers in the process.

The participants had no knowledge of the interviewers prior to the interview besides knowledge of the interviewers' professional background and interest in the subject sent by email before the interview. To create a good and familiar setting, the participants decided where the interviews should take place (Kvale & Brinkmann, 2015; Smith & Osborn, 2008). Hence, interviews were conducted face to face at the participant’s workplace (n = 5), in the participant’s own home (n = 1), and by telephone (n = 3). The interviews were guided by an interview guide informed by knowledge gained from the literature and guidelines from IPA (Smith & Osborn, 2008; Smith et al., 2009). It included topics on motivational factors, opportunities, and barriers in the transition to entrepreneurship going from idea to product in order to gain knowledge about the impact of entrepreneurship on nurses’ role and professional identity (Appendix 1). As the interview guide is part of a Master thesis the interview guide addresses more topics than this article focuses on.
To ensure author reflexivity and a less asymmetrical relation between researcher and participant, researchers prepared thoroughly before each interview (Kvale & Brinkmann, 2015); by getting to know the interview guide, practice how to ask open-ended interview questions and gain knowledge of participants’ idea, product or company. All interviews were audio recorded, transcribed verbatim and supplemented by field notes on body language conducted after each interview. It was not possible for the participants to comment on or correct the transcripts or findings.

Ethical consideration

In advance, all participants received oral and written information about the study, including information that participation was voluntary and that they could withdraw from the study at any stage. In accordance with the General guidelines for nursing research in the Nordic countries (International Council of Nurses, 2004), informed consent was obtained before the interview (Northern Nurses’ Federation, 2003). Ethical guidelines on confidentiality and data retention were followed to maintain anonymity (Brinkmann & Tanggaard, 2015; Northern Nurses´ Federation, 2003; Norwegian National Research Ethics Committees, 2016). All data were anonymised and stored in a secured manner and destroyed after use. Only the researchers had access to interview recordings and transcripts. According to Danish law, interview studies do not require approval from a scientific ethics committee. In addition, according to Danish guidelines, approval from Danish Data Protection Agency was not obtained as the study was part of a Master thesis. There was no obligation to notify the Scientific Ethics Committee, as the study did not deal with biological material.

Data analysis

Interviews were transcribed verbatim by the first and second authors using IPA as the analytical framework (Smith et al., 2009). IPA’s method of analysis consists of a step-by-step model including six steps, as shown in Figure 2 (Smith & Osborn, 2008; Smith et al., 2009):

Figure 2: The IPA step-by-step model
The analysis of the first interview was done by the two authors, and the remaining interviews were distributed between the two authors. Subsequently, the authors read each other’s analyses and added comments. All findings were discussed with the co-authors. The participants were not offered to provide feedback on the findings but were sent the completed study. The IPA step-by-step model is exemplified in Table 2.

Table 2: Example of the IPA steps

Validity and reliability/rigour
The research process is considered valid, because it appears rigorous and transparent through the study (Kvale & Brinkmann, 2015). To warrant validity, quotations were used to link to the participants’ original statements. The study findings are considered reliable due to the study’s rigor and transparency (Polit & Beck, 2010). The findings cannot claim statistical generalisability; however, this is not the purpose of qualitative research (Kvale & Brinkmann, 2015; Smith & Osborn, 2008). The findings can claim analytical generalisation, as we address the extent to which our findings can be applied in clinical practice or other clinical settings (Kvale & Brinkmann, 2015).

Findings
Characterisation of sample
In total, nine individual interviews were carried out with nurses. The participant characterisations are shown in Table 2.

Table 3: Characteristics of participants

Participant quotations will be identified with a participant number (P1–P9) and will be presented to illustrate the findings of the study.

The analysis revealed four closely related and mutually interdependent themes: 1) prejudice towards entrepreneurship; 2) to become an entrepreneur in a nursing culture; 3) rebellion against
the traditional role as employee; and 4) challenged professional identity and new professional roles.

In order to explore the complexity of the experiences and perspectives of nurses transitioning into entrepreneurship and thereby what impact entrepreneurship can have on the nursing identity and role, the interdependency of themes is illustrated in Figure 2. For the sake of clarity, the derivative themes are presented separately in the following sections.

Figure 3: Emergent themes and their context for nurse entrepreneurs

The inner circle represents the basics of the nursing profession (tradition, norms, values, and role). The middle circle represents the interdependence among the four themes, including the nurse entrepreneurs’ experience of emergent contradictory subjects and their interfaces. The outer circle shows the overall context where the themes takes place. The arrows show how the four themes and the nurse entrepreneur are mutually independent.

1. Prejudice towards entrepreneurship

In the transition into a nurse entrepreneur, the nurse entrepreneurs often encountered the prejudices that entrepreneurship removes nurses from the nursing profession and that the nursing profession cannot be combined with entrepreneurship and still be nursing:

‘Some may think “Where is her focus? She is 100% nurse when she is a nurse here”. And I am, but I was afraid someone might think my thoughts could be elsewhere. I do a lot to make sure it does not occupy me when I care for patients. So, I keep it very separate’ (P7).

‘If I had listened to many of the nurses I knew at that time, I would not have been where I am today, because they simply did not understand it. Well, the typical attitude I met was “Oh no, what do you want to do though? You can never return to nursing again.” They didn’t understand that I see what I’m doing today as nursing’ (P5).

This points to a widespread concern for views of others and stereotyped expectations from colleagues about what real nursing is. For the nurse entrepreneurs, it resulted in an inner struggle and a ‘fear of appearing as a bad nurse’, demonstrating the necessity to take on different roles in order to appear as a ‘good’ nurse. It created a sense of guilt and self-reproach as the nurse
entrepreneurs felt it was illegal to enter entrepreneurship, a feeling compounded by nursing colleagues who felt left behind in clinical practice. This points to a ‘traditional’ way people view the nursing profession, but also how nurse entrepreneurs challenge this view, as they see nursing as something that goes beyond care and treatment for patients.

According to the nurse entrepreneurs, prejudices of others were created by the media, which may have an impact on people’s perception of the entrepreneurial role and values:

“Some of the people I worked closely together with while I was an employee in the hospital encountered me with “Oh, now you are also a business owner and now you just want to rip us off and make money on this”” (P5).

The quote shows that nurse entrepreneurs face prejudice about being money driven rather than helping patients and the healthcare system. This conflict of values made it difficult for the nurse entrepreneurs to identify themselves with the entrepreneurial role. However, the nurse entrepreneurs themselves had prejudice about the entrepreneurial role, expressed through descriptions of businesspeople and entrepreneurs as cynical, money driven, greedy, and unconcerned ‘young, smart salesmen in suits’ or even ‘psychopaths in suits’. Quotes like ‘nurses give without taking’ and ‘nurses have other basic values than other start-ups’ show how the nurse entrepreneurs perceived and attributed entrepreneurs’ professional values far from their own values as nurses.

2. To become an entrepreneur in a nursing culture

The nurse entrepreneurs described the nursing culture as a zero-error culture as well as a ‘we usually do’ culture where nurses in general were afraid to do things differently or make mistakes and always kept a line of retreat open:

“It’s just a shield, because you are rightly afraid of making mistakes in the healthcare system, because you always want to do the best possible job for patients. But you also forget that this is the way we have developed our profession: it is actually trying something out’ (P5).

‘I thought we have to do things differently. The thing we keep doing, it no longer fits into the society we have. It worked 50 years ago maybe. It was effective then, but it does not fit in now’ (P8).
The quotes support how nurse entrepreneurs view the need for a cultural change to adapt to present healthcare, but they also highlight the importance of throwing oneself into entrepreneurship and failing, as it creates learning. However, nurse entrepreneurs perceived how other nurses to a lesser extent were willing to take risks and have the courage to challenge existing professional cultures, due to fear of making mistakes. Nurse entrepreneurs met fear and resistance to cultural change and change in general from their nursing colleagues, other health professionals, management, or the outside world. This made it challenging for the nurse entrepreneurs to change habits and routines in the nursing culture.

According to the nurse entrepreneurs, the nursing culture differed from cultures such as the medical culture:

> ‘Within the nursing profession, we have not been so good at selling and highlighting ourselves. Like “look at me, look at how good I am. I am a nurse and do research and all that stuff”. Here we lag a little bit behind afterwards’ (P3).

This view on nursing culture as a less experimental culture than others highlights a development potential. The nurse entrepreneurs also perceived that nurses usually only assessed problems from the patient’s or their own perspective:

> ‘We as nurses are also very good at being self-absorbed, where we would very much like to say “What we contribute with is simply the most important”. Instead, we should look inward and see the bigger picture’ (P1).

This supports how nurse entrepreneurs perceive nurses in general as narrow box-thinking and solution-oriented. However, during the entrepreneurial process, the nurse entrepreneurs learned to be less silo-thinking and more process-oriented.

Overall, it illustrates a nursing culture where nurses are good at thinking innovatively within their own profession, but with entrepreneurship they also learn to think innovatively 'outside the box' in a broader health perspective.

### 3. Rebellion against the traditional role as employee

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The nurse entrepreneurs experienced a normative attitude towards the traditional role as nurse employee, where it was unusual for nurses and women in particular to create their own job as nurse entrepreneur:

“We (red.: nurse entrepreneurs) are a niche, after all. Of course, over 90%, 95% maybe 98%, will be an employee. That is just a basic culture you cannot change” (P6).

The quote supports how nurse entrepreneurs perceive their transition as untraditional compared to their traditional nursing employment. However, there seemed to be an inconsistency in the fact that some nurse entrepreneurs considered themselves risk-averse, but at the same time needed a financial safety net, as many of the nurse entrepreneurs continued to have affiliation to the labour market. In contrast, other nurse entrepreneurs did not consider lack of fixed salary income to be a challenge, as it led to a recognition that it was possible to manage life without wage for a period, without living conditions changing significantly.

However, the nurse entrepreneurs described the rebellion against the traditional role as employee as difficult and overwhelming, because it affected the nurse entrepreneurs' amount of leisure time, financial income, or family and friendship conditions:

“Well, it became a life, right. It also became a struggle. To survive. Because suddenly, even if you did not want to, you suddenly had to put everything into it” (P2).

It was common for the nurse entrepreneur to be hardworking and willing to put in the extra effort, and it was an advantage that they as nurses were used to overtime work, changing working hours, and spending many hours outside working hours. Thus, the nurse entrepreneurs described the entrepreneurship process as a lifestyle where work and leisure became one, which is in direct contrast to the usual employee role as a nurse with more division between work and private life:

“I would say it requires energy. I think you have to be a special mould” (19).

The quotes emphasises the role as nurse entrepreneur: not everyone can cope with the role due to the difficult entrepreneurial process, nor can everyone step out of the employee role and into an entrepreneurial role.
4. Challenged professional identity and new professional roles

For the nurse entrepreneurs, entering the entrepreneurial world led to a changed perception of their professional identity:

‘I have a strong identity as a nurse [clutching both hands to her chest]’ (P1).

‘Well, I describe myself as a nurse, yes. But on my business card I actually wrote social entrepreneur, because I thought it contained it very well. (...) Now it's a bit more just an “entrepreneur”. (...) But yes. Nurse, manager, social entrepreneur, yes’ (P8).

There was an inconsistency regarding whether the nurse entrepreneurs perceived themselves as an entrepreneur. Thus, the conceptual understanding of the definition of ‘entrepreneur’ differed for the nurse entrepreneurs, which may have influenced to which degree they identified themselves with the entrepreneurial role. For many of the nurse entrepreneurs, it was a challenge to find their proper professional niche, both before entering entrepreneurship and during the process. It led to identity confusion and created a feeling of not fitting into the traditional definition of a nurse, which made it ‘difficult to find a place where you belong’.

The nurse entrepreneurs described a need to challenge and change the existing view on nursing identity:

‘There is a classic understanding of what nursing and the nursing profession is, and how to develop this, that might need to be dusted off’ (P5).

The quote demonstrates how the entrepreneurial process has taught the nurse entrepreneurs to view nursing in other ways than ‘traditional’ nursing and changed the nurse entrepreneurs' perceptions of their own professional identity. Conversely, there was an inconsistency in how much nurse entrepreneurs challenged the nursing role and understanding of the nursing identity:

‘It is also important that we educate nurses to be nurses. Well, we do not have to educate nurses to be start-ups. They have to care for some patients, which is the most important thing we are trained for’ (P1).

Overall, the quote shows how the traditional nursing thinking and understanding of the nursing identity are still deeply rooted in the nurse entrepreneurs.
Discussion

Overall, this study has revealed nurse entrepreneurs’ experiences of the transition into entrepreneurship and how these experiences are under the influence of prejudices, the existing nursing culture and identity, as well as the traditional employee role. Generally, there is a lack of research in the area of nurse entrepreneurs, and furthermore, little is known about the impact of entrepreneurship on nurses’ role and professional identity.

A significant finding in our study was that nurse entrepreneurs encounter a lot of prejudices from others towards their entrepreneurial role, but they also have many prejudices towards entrepreneurs themselves. Thus, the findings present a duality in prejudices. To a lesser extent, previous research has focused on the nurse entrepreneurs’ own prejudices towards the entrepreneurial role. However, research indirectly describes some of the prejudices nurse entrepreneurs face, as the transition from nurse to entrepreneur contains opposing cultural values, habits, behaviours, and norms (Sharp & Monsivais, 2014; Wilson et al., 2012). It is clear it can be a struggle to have one’s new professional identity recognised as a nurse entrepreneur from the outside world (Neergård, 2020; Arnaert et al., 2018; Sanders & Kingma, 2012; Sharp & Monsivais, 2014; Wall, 2013, 2014). In line with our findings, this might be due to the fact that entry into entrepreneurship is equated with disloyalty to nursing colleagues and other health professionals (Copelli et al., 2019; Wall, 2014). The findings demonstrate that basic nursing values are based on care and empathy, which is in contrast to prejudices towards entrepreneurs. However, whether the findings suggest a lack of recognition and support, it might be reinforced by these prejudices about entrepreneurs or a lack of identity definition as a nurse entrepreneur (Wall, 2013; Wilson et al., 2012).

In accordance with international research, our findings also demonstrate an identity confusion and how nurse entrepreneurs struggle to reconcile entrepreneurial characteristics with their own professional identity and basic values as nurses (Neergård, 2020; Arnaert et al., 2018; Sharp & Monsivais, 2014; Wilson et al., 2012). Our findings revealed that nurse entrepreneurs search for their true professional identity during their transition. This illustrates how difficult it can be to describe or take on a ‘new’ professional identity as a nurse entrepreneur, and it points to a
worldwide challenge for nurses to pinpoint an identity as a nurse entrepreneur. Nevertheless, our findings illustrate how the entrepreneurial process has taught nurse entrepreneurs to view nursing in another way than ‘traditional’ nursing and challenged their views on their own professional identity. The study underlines how entrepreneurship has challenged nurse entrepreneurs’ prejudices about entrepreneurs, creating opportunity to develop the nursing profession’s traditions, prejudices, and subject areas.

Another significant finding from this study was that the existing nursing culture compromises the possibility of engaging in entrepreneurship, as a traditional understanding of the nursing identity is deeply rooted in the nurse entrepreneurs. In order to be able to practice entrepreneurship, this may indicate a need for development of the nursing profession and culture. Therefore, it can be discussed whether it is possible to change this embedded nursing culture. On the one hand, the findings reinforce that nurses in general lack courage to challenge the existing professional culture and to dare to fail. These findings may indicate that the zero-error culture and we ‘usually do’ culture inhibit the ability to think innovatively, making it difficult to develop new ideas. A Canadian meta-analysis highlights how excluding or discouraging entrepreneurial practice in a profession stifles its growth, makes it less adaptable to change, and limits the development of new services that fill crucial needs (Arnaert et al., 2018). Thus, it can be argued how nursing culture can be a sociological barrier that discourages entrepreneurship (Nielsen et al., 2014). On the other hand, the findings highlight how entrepreneurship gives the nurse entrepreneurs courage to challenge the existing professional culture, as the nurse entrepreneurs during the entrepreneurial process learned to be less silo-thinking and more process-oriented.

In this study, two of the participants had received formal entrepreneurial education and three participants had received entrepreneurial consulting through entrepreneurial ideation competitions. Nevertheless, all participants requested knowledge and competences within business, innovation and entrepreneurship, legal matters, product development and economy. As education and courses in entrepreneurship are believed to make a positive contribution to the entrepreneurial activities and process (Nielsen et al., 2014), and in order to meet the demands of the future healthcare system, nursing education needs to provide students with the right knowledge and skills for entrepreneurship (Arnaert et al., 2018; Bagheri & Akbari, 2018; Colichi et
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the transition may cause nurse entrepreneurs to return to their former role as a nurse (Sharp & Monsivais, 2014). Our findings suggest that the time perspective was a barrier for the nurse entrepreneurs, as it required a special mould to prioritise in the way that the entrepreneurship process required. This may complicate a rebellion against the traditional role as employee. Overall, our findings suggest that it is not only nurses who must grow accustomed to new potential professional roles, but also nurse entrepreneurs themselves, in order to challenge the current nursing culture. In line with the literature, our findings indicate that nursing entrepreneurs during the process learn to cope with the high work load and time pressure that entrepreneurship entails (Sankelo & Akerblad, 2009), which can have a positive impact on the ability to challenge and change the nurse’s current role. Taking on new professional roles can thereby have future significance by creating the opportunity to achieve greater understanding and a broader perspective on care and nursing, increasing the value of care and nursing across professional groups and health services (Wall, 2013).

This study revealed a normative attitude in the nursing culture that a ‘real’ nurse must do good and make a difference. This normative attitude within the nursing profession is also present in international literature as it portrays entrepreneurial nurses as nurses first and foremost, where nurses are trained to function as ‘good’ employees who carry out orders (Neergård, 2020; Copelli et al., 2019; Wall, 2013). Kari Martinsen (2010) explains that good nursing must be learned from a professional judgment by assessing how we best act in the situation based on trust, openness of speech, mercy, and interdependence. In relation to our findings and based on the above, it can be argued that nurse entrepreneurs act out of their duty to fulfil the normative role as a ‘good nurse’. However, research emphasises that the ‘good nurse’ is contrary to the entrepreneur's logic, which is based on the creation of innovation and new opportunities (Copelli et al., 2019). This indicates that the duty to be a good nurse becomes a barrier in the transition from nurse to entrepreneur and clarifies a need to change the existing perception of what a ‘good’ nurse is. According to Martinsen (2010), the professionally skilled nurse must remain reflective and critical on both working conditions and structures within the field of care. Thus, findings indicate that the nurse entrepreneurs have been reflective and critical throughout the entrepreneurial process and thereby challenged traditional nursing thinking, their own prejudices, and the nursing role. This
indicates that the nurse entrepreneurs through entrepreneurship learn to think reflectively and critically, which can contribute to develop and improve working conditions and cultures in the field of nursing. This also points out that the entrepreneurs’ logic is not as contradictory for nurses as believed, as similarities are seen with the above-mentioned skills described by Martinsen. Through entrepreneurship, the nurses gain influence in providing health services in new ways, which can contribute to better quality of care, access to necessary services, and increased patient empowerment (Neergård, 2020; Wall, 2013). This is because the attitude of what ‘good’ nursing is to a greater extent is adapted to the demands that society places on the field of health (Boore & Porter, 2011; Højgaard & Kellberg, 2017). Thus, if the attitude towards the ‘good’ nurse changes and develops, it may have a positive effect on the healthcare system in the future.

Strengths and limitations

The purpose of the study was to provide in-depth information about nurse entrepreneurs' experiences with entrepreneurship, so a qualitative research design with an IPA analytical framework is well chosen (Kvale & Brinkmann, 2015; Smith & Osborn, 2008). The strength of using IPA is that multiple readings and active work with the transcriptions made it possible to become very familiar with the data material. IPA is very structured and allowed us to access the analysis systematically throughout all stages. IPA recommends using between three and six informants in order to avoid excessive data flow (Brinkmann & Tanggaard, 2015; Smith & Osborn, 2008). Since we were two interviewers, we involved nine participants. During the interviews, several commonalities between participants were found, indicating an approach towards data saturation (Brinkmann & Tanggaard, 2015). Even though too much data can hinder the ability to conduct a coherent and innovative analysis and interpretation (Brinkmann & Tanggaard, 2015), this is considered a strength, as it may indicate that a smaller number of participants would not have provided such an in-depth and nuanced amount of data. However, the study and substantiate data saturation could be strengthened by adding field observations on how the participants have developed their nursing roles and professional identity in clinical practice.

Another study limitation could be the location, as some participants (n=3) chose locations where the interview was interrupted. This might have affected the degree of intimate and in-depth
answers. On the other hand, it is a strength that the participants chose the time and place for the interview, as it might make them more relaxed and confident in the situation (Smith et al., 2009).

Author reflexivity was strengthened by awareness of how the researchers’ attitudes and pre-conceptions affected the interview situation. In order to respect the informants’ integrity and vulnerability the interviews were aware of the informant’s body language and used active listening and neutral questions (Smith & Osborn, 2008; Norwegian National Research Ethics Committees, 2016). Thus, during the three telephone interviews researchers were more guided by the interview guide. We followed the interview guide less rigorously as the interviews were conducted, indicating an open and actively listening in the interview situation (Smith et al., 2009).

**Conclusion**

In conclusion, nurse entrepreneurs are caught between traditional and new ways of viewing nursing identity, norms, values, and roles. Nurse entrepreneurs face a complex context in clinical practice when met with stereotyped views on ‘real’ nursing, such as the existing nursing culture, stigmatised view on the nursing employee role, and conflict of professional values. Our findings show that entrepreneurship entails a huge learning process, as it develops nurses’ ability to think outside the box in a broader health perspective and challenges nurses’ own stereotyped views on nursing and entrepreneurship. Nurse entrepreneurs affect the nursing identity and role in clinical practice by questioning what ‘real’ nursing is, giving the nurses courage to challenge the existing nursing culture and view on the traditional professional role and employee role. However, our study points out that nurse entrepreneurs’ ability to engage in entrepreneurship is compromised by nursing culture and professional values, the duty to behave as a good nurse, and their own prejudices towards entrepreneurs.

**Implications for practice, research, education, management and policy**

This study provides knowledge on how development of the nursing role and identity through entrepreneurship and entrepreneurial nurses is important and can benefit nursing management, patients, healthcare professionals as well as the rest of the healthcare system. By stimulating a more innovative culture through entrepreneurship and nurse entrepreneurs, it is possible to
increase the number of nurses who choose to become a nurse entrepreneur and manage to develop a product or a company inside or outside the clinical environment. The nursing culture can be changed to be more receptive to entrepreneurship by introducing entrepreneurial activities already at the educational level, which can have a positive effect on nurse entrepreneurs’ fear of making mistakes and resistance to change. Thus, further research is required to understand the impact entrepreneurship and entrepreneurial nurses can have on clinical practice.

Conflict of interest statement

No conflict of interest has been declared by the authors.
References


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Introduction
Welcome, thank you for participating
Introduction of researchers; name, previous work experience, study

- The interview lasts approx. 30-60min and will be recorded on a dictaphone
- The interview is subsequently transcribed. No one but the researchers will listen to the recordings, and all data will be deleted afterwards
- No information referring to you, your colleagues or your department will be passed on, so you remain anonymous

Interview purpose
- The purpose of the interview is to examine your experience of becoming an entrepreneur through the development of innovative solutions that improve clinical practice
- I am interested in hearing about your experiences with (idea / product name) and how the process from idea to product has been

Declaration of consent is handed out and signed
Do you have any questions before we start?
Dictaphone is turned on

Questions
Tell me about your professional background:
Age, how many years of experience do you have as a nurse? Continuing education?

Can you briefly tell us about your project / idea / company and where in the process you are right now?
Are you part-time / full-time / self-employed - and since when?

<table>
<thead>
<tr>
<th>Research questions</th>
<th>Interview questions</th>
</tr>
</thead>
</table>
| What motivates nurses to become entrepreneurs? | • Can you tell me how you got the idea for the product/idea/company?  
• Can you try to put into words how you experienced starting a project? What made you start the project? |
<table>
<thead>
<tr>
<th>What significance does your product/idea/company have for you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you previously worked with innovation and development in your career? Can you tell more about it? What experiences have you been able to use?</td>
</tr>
<tr>
<td>How much did you know about being an entrepreneur before you started on your product/idea/company? How did it affect your motivation to start the project?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What opportunities does the nurse experience in the development from idea to product?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you tell me what help and support you have received during the process? Do you have any examples of specific situations where you received help or positive feedback? Which help has been most important?</td>
</tr>
<tr>
<td>Internally: Family, friends</td>
</tr>
<tr>
<td>Externally: mentors, the workplace, management, collaboration, patients</td>
</tr>
<tr>
<td>Which nursing competencies have you been able to use during the development? Has the project provided you with competencies that you can apply in clinical practice or in your current job?</td>
</tr>
<tr>
<td>How have you experienced the transition from being a nurse to being an entrepreneur? What does an entrepreneur mean to you? Can you tell me something more about how you see yourself?</td>
</tr>
<tr>
<td>Does she see herself as a nurse or entrepreneur</td>
</tr>
<tr>
<td>Where do you see yourself in 5 years? Do you see yourself developing more things?</td>
</tr>
<tr>
<td>Back in practice, own business, develop more products for the health organization</td>
</tr>
<tr>
<td>Where do you see your product/idea/company in 5 years?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Which barriers does the nurse experience in the development from idea to product?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you describe a situation or experience that was particularly challenging for you during the process? Can you give other examples? How did it affect you?</td>
</tr>
<tr>
<td>How do you think others perceive your idea/product/company? Do you remember situations where you have experienced resistance?</td>
</tr>
</tbody>
</table>
How did you react to that?

- If you had to do it all over again, what competences/knowledge would you like to have?
  
  *Education, knowledge of business*

- Based on the experience you have described in the last half hour/hour, what advice would you pass on to other nurses who want to develop an idea/product/company in the future?

**Debriefing**

Thank you for your answers. I have no further questions.

Do you have anything you want to add or any questions before we end the interview?

*Dictaphone is turned off*
<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurses (RNs)</td>
<td>Nurses with less than 1 year experience in clinical practice</td>
</tr>
<tr>
<td>Nurses who alone or together with colleagues came up with an idea and took initiative to develop a product and/or company that improves clinical practice</td>
<td>Nurses with level of education higher than the master level*</td>
</tr>
<tr>
<td>Nurses with employment in a health organisation at the time the idea occurred</td>
<td>Nurses who have developed products and/or companies where the idea has emerged at management level</td>
</tr>
<tr>
<td>Nurses who have either developed a product and/or a company</td>
<td>Nurses who have developed a product and/or company unrelated to clinical practice or conducted entrepreneur activities not focused on nursing actions</td>
</tr>
<tr>
<td></td>
<td>Nurses who have developed products and/or companies more than 10 years ago</td>
</tr>
<tr>
<td></td>
<td>Nurses who have worked on innovation projects that have not led to entrepreneurship**</td>
</tr>
</tbody>
</table>

* Nurses with education higher than master level were excluded because the study cf. the theoretical framework was interested in nursing-initiated bottom-up processes, ideas, products or companies and to a lesser extent management- and organizational-specific top-down driven processes and initiatives

** Nurses who have worked on innovation projects that have not led to entrepreneurship were excluded to ensure that all included nurses were working at an entrepreneurial level with products and/or companies that creates value for other than the nurse. These nurses have not gone through all three stages of the entrepreneurial model as stated in the background section (Nielsen et al., 2014).
<table>
<thead>
<tr>
<th>Single interview analysis</th>
<th>Cross-interview analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1</strong> Reading and re-reading</td>
<td><strong>Phase 5</strong> Continue with the other interviews</td>
</tr>
<tr>
<td><strong>Phase 2</strong> Initial notes</td>
<td><strong>Phase 6</strong> Master table</td>
</tr>
<tr>
<td><strong>Phase 3</strong> Emergent themes</td>
<td><strong>Phase 4</strong> Correlation across emergent themes</td>
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<td><strong>Phase 5</strong> Continue with the other interviews</td>
</tr>
<tr>
<td><strong>Phase 5</strong> Continue with the other interviews</td>
<td><strong>Phase 6</strong> Master table</td>
</tr>
</tbody>
</table>

Repeated readings of one transcript and listening to the recording

**Transcript**

'I was met with a wall of skepticism: “Now you just want to make money.” It was like they didn’t know me now, now you were a completely different person. It was hard to get through that one’ (P5).

Difficulties in recognising the prejudices of others towards business owners
Feeling people don’t know you anymore
To feel like the same, while others see you as a completely different person
Other people's view of business owners
When others question your identity and treat you differently

Challenged professional identity and new professional roles
Conflicts of value
Prejudice towards entrepreneurship

Go through phases 1–4 for the next transcriptions individually

Becoming an entrepreneur in a nursing professional culture
<table>
<thead>
<tr>
<th></th>
<th>1 male</th>
<th>8 females</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>36–63 years old</td>
<td></td>
</tr>
<tr>
<td><strong>Years of seniority as registered nurses (RNs)</strong></td>
<td>6–34 years</td>
<td></td>
</tr>
<tr>
<td><strong>Supplementary education</strong></td>
<td>Master’s degree (n=3)</td>
<td>Other specialised nursing education (n=4)</td>
</tr>
<tr>
<td><strong>Received formal entrepreneurial training/education before or during their entrepreneurial activity</strong></td>
<td>Diploma degree in innovation and entrepreneurship (n=2)</td>
<td>Entrepreneurial ideation competition (n=3)</td>
</tr>
<tr>
<td><strong>Entrepreneurial nursing role</strong></td>
<td>Nurse entrepreneur (n=5)*</td>
<td>Nurse intrapreneur (n=4)**</td>
</tr>
<tr>
<td><strong>Work status at the time of the study</strong></td>
<td>Working full time in their own business (n=4)</td>
<td>Regionally employed nurses (n=4)</td>
</tr>
</tbody>
</table>

* Nurse entrepreneur refers to nurses that autonomously drives an entrepreneurial process through new venture creation, for instance, by establishing health care institutions or home visit services and products (Neergård, 2020).

** Nurse intrapreneur refers to nurses that initiates an entrepreneurial process as an employee in an established public or private organisation/institution, e.g. entrepreneurs who do not own a business of their own, but acts as corporate employee entrepreneurs (Neergård, 2020).
Nurses eligible for inclusion n = 21

Nurses contacted n = 13

Nurses eligible for interview n = 9

Excluded n = 8
- Ideas emerged at management level (n = 2)
- Ideas > 10 years old (n = 1)
- No finished prototype, product or company (n = 1)
- Innovation projects not resulting in entrepreneurship (n = 1)
- Ideas/products/companies not related to clinical practice (n = 1)
- No accessible contact information (n = 2)

Excluded n = 4
Did not respond

• Ideas emerged at management level (n = 2)
• Ideas > 10 years old (n = 1)
• No finished prototype, product or company (n = 1)
• Innovation projects not resulting in entrepreneurship (n = 1)
• Ideas/products/companies not related to clinical practice (n = 1)
• No accessible contact information (n = 2)
Phase 1
• Reading and re-reading the interview transcription from one interview in order to make a more complex analysis

Phase 2
• Making initial notes of what is interesting or significant in the participant’s statements noted in the left margin by using descriptive, linguistic, and conceptual comments

Phase 3
• Identification of emergent themes developed from the notes in phase 2 noted in the right margin. The themes were concise and precise statements that show what is important about each section of the transcript through a more interpretative analysis

Phase 4
• Find correlation across emergent themes from one interview. To find a connection between the themes, themes from phase three were gathered, moved around, and, from this, clusters emerged

Phase 5
• Go through phases 1–4 for the other interview transcripts while staying open to new emergent themes

Phase 6
• Construction of a master table of the themes by looking at emergent and clustered themes and patterns across all interview transcripts from phases 4 and 5

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