

# Nursing students' perception of nursing knowledge: A qualitative study

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## Abstract

**Aim:** To explore nursing students' perception of nursing knowledge.

**Design:** Qualitative interview study.

**Methods:** Semistructured individual interviews with nine nursing students in their third year were conducted via a cloud-based video communication app. Transcriptions were analysed based on Braun and Clarke's thematic analysis. The Consolidated Criteria for Reporting Qualitative Research checklist for qualitative research was used.

**Results:** The findings show that the participants emphasised that values are the prerequisites of and basis for performing professional nursing. The students found it difficult to define nursing knowledge and to distinguish nursing knowledge from other subjects. The thematic analysis resulted in two themes: values—a prerequisite of nursing knowledge, and nursing knowledge—an umbrella of knowledge.

**Conclusion:** Nursing knowledge seems to be difficult both to clarify and to demarcate for the students. However, the participants considered values to be important and vital to becoming a professional nurse.

**Implications for the profession:** This study addresses students' perceptions of values, nursing knowledge and what it consists of, and how this is experienced. An understanding of the nursing students' perceptions of what they consider to be important values and how they understand nursing knowledge is important in making the profession clearer and more distinguishable.

**Impact:** The impact of this study means that nurse education needs to emphasise a more argumentative and visible education where nursing knowledge and values are more prominent than today.

**Reporting Method:** COREQ.

**Public Contribution:** No patient or public contribution.

## KEYWORDS

nursing knowledge, nursing students, qualitative research, values

## 1 | INTRODUCTION

The aim of this study is to explore the nursing students' perceptions of nursing knowledge. It seems necessary to gain knowledge about this theme, since research shows that nurses struggle to define, explain and structure the body of nursing knowledge (Clarke, 2011; Decker & Hamilton, 2018; Jensen et al., 2022; Mottian et al., 2022). This may be due to the diverse composition of knowledge in nursing, including medicine, social sciences, humanities and ethics. Nursing is also based on a relationship-centred partnership between the nurse and the patient, as well as the patient's next of kin (Finfgeld-Connett, 2008). This body of knowledge is intertwined with practical skills, and this combination serves as the foundation for nursing practice. A common response is that nursing is a mixture of things, and its uniqueness lies in the mix (Cash, 2009; Decker & Hamilton, 2018). Based on this, it seems difficult to structure nursing knowledge in a way that makes it useful to nurses.

## 2 | BACKGROUND

Nursing knowledge does not contain a single and well-ordered knowledge, such as other disciplines (Decker & Hamilton, 2018). However, Kim (2010) claims that knowledge structures are important for nursing practice because structures will shape nursing behaviour. The nurse education embraces different learning arenas; traditional teaching such as lectures, seminars and group work, simulation and training of skills in laboratories and in clinical placements. Practical training, which accounts for one-half of a nurse's education, requires several complex actions that go beyond technical skills. Practical knowledge requires theoretical knowledge as well as the ability to take a critical approach so that the performance can be tailored to a unique patient and a specific context (Ewertsson et al., 2017).

A variety of definitions of nursing have been arrived at throughout the profession's history. These different interpretations of nursing create opportunities for nurses and nurse educators to develop individual understanding and dissemination (Mottian et al., 2022). Still, it seems difficult to structure nursing knowledge in a way that makes it useful to nurses in practice (Decker & Hamilton, 2018). In addition, Risjord (2010) identify four possible reasons for why nursing knowledge is unclear and difficult to grasp in nursing practice. First, the role of the nurses in the healthcare system. Traditionally, the nurses are marginalised compared with the role of the physicians. Second, the needs of the physicians dominate the relationship between nurses and physicians. Third, the nurses' role, which is necessary for the physicians, is also largely invisible. Finally, the nurses combine knowledge based on the patients' need both from the perspectives of the physicians and from nursing care, but the nurses' need for knowledge goes beyond the shared knowledge to take care of the patients 24h. Risjord claims that by taking the position of the physician the nurses might underestimate their own role and importance (pp. 71–72). To our knowledge, it is difficult to find literature that describes and explains nursing students' perceptions of nursing knowledge.

## 3 | THE STUDY

### 3.1 | Aim and objective

The aim is to explore nursing students' perceptions of nursing knowledge. The objective is to gain knowledge about how nursing students express nursing knowledge after almost 3 years of nurse education.

## 4 | METHOD

### 4.1 | Study design

A qualitative study design was used to explore the participants' (the nursing students) perceptions of nursing knowledge. Individual interviews were used for data collection and the data were analysed using Braun and Clarke's (2019, 2022) reflexive thematic analysis.

#### 4.1.1 | Recruitment and participants

Nursing students were recruited from two different campuses at one university in Norway. Students from the third year of their nurse education were invited to participate in the study.

An open invitation on the learning management system Canvas was sent out. All undergraduate nursing students in their third year were invited. Nine students responded positively to participate in this study. Recruitment of participants turned out to be difficult, probably due to the COVID-19 pandemic. At the time, the study was completed the national guidelines stated that, due to the pandemic, physical meeting points were not possible. We chose to invite third-year students since they are nearly fully educated nurses and might have some expectations regarding nursing as a profession.

### 4.2 | The data collection

The data collection consisted of individual interviews based on a semi-structured interview guide. The interview guide was based on review of literature and authors' experiences (Brinkmann & Kvale, 2015; see Table 2). Due to the problem with recruitment, the interview guide was not pilot tested. As the situation with the COVID-19 pandemic developed, all the interviews were collected via a cloud-based video communication app (Zoom), and the app was connected to Services for Sensitive Data to record the interviews [Nettskjema—University of Oslo (uio.no)]. We started with asking the students about demographic data (see Table 1). The topics in the interview guide were related to the students' perception of nursing knowledge (see Table 2). The questions were asked so that participants were encouraged to share their own perspectives and experiences. To ensure the validity of the data collection process, we asked the participants questions like 'did I understand you right, when you said...'. Both authors conducted the interviews. Each interview lasted about 45 min.

### 4.3 | Data analysis

The interviews were transcribed verbatim, but de-identified, by the first author. The text analysis was inspired by Braun and Clarke's (2019, 2022) reflexive thematic analysis, which includes a reflexive, repetitive involvement with the dataset to produce a solid analysis.

The analysis process started by reading the transcription openly several times to become familiar with the dataset. We then re-read the transcription with the aim in mind and started the coding process where we focussed on organising data in a meaningful and systematic way, marking the codes that emerged. In this phase, we constructed six initial codes: professional values, personal values, human manners, broad and blurry knowledge, vague demarcation of nursing knowledge, and nursing theory is difficult to see as a part of nursing knowledge. We then examined the initial codes and constructed codes and potential themes through developing and reviewing the code data and the dataset, checking whether the codes fit together and whether they answered the research questions. In this phase, we reduced the codes from six to three. We then developed and modified the themes and ensured that the codes really embraced the content of the interviews. In the final phase, we went through the process again from where we started the coding and ensured that the codes corresponded to the research aim. The coding

was ended when no new themes or codes arose from the data, and data saturation was interpreted as attained (Braun & Clarke, 2022). In this phase, we reduced to two of the three codes, because of the overlapping in content and ended up with the following two themes: values—a prerequisite of nursing knowledge, and nursing knowledge—an umbrella of knowledge (see Table 3).

### 4.4 | Ethical issues

Permission to carry out the study was obtained from the head of department at the university, Department of Nursing. Furthermore, the study was approved by the Norwegian Centre for Research Data (NSD, project nr. REDACTED). Students received written information about the study and gave their informed consent by sending the first author an email, which was stored in a password-protected file. The students were informed that they were completely free to withdraw at any point in the study. The authors did not know the students. The data were anonymised and stored in a locked cabinet, in accordance with current guidelines at the university and in accordance with General Data Protection Regulation. We used an app [Nettskjema—University of Oslo (uio.no)], which is a secure solution for online data collection. It was done a risk analysis (ROS) at the start of this study, related to data management and the sensitivity of the data. Since this study deals with students who are to some extent in a vulnerable situation, the study was considered having a medium degree of sensitivity.

### 4.5 | Rigour

To strengthen the tentative analysis, the study's aim and transcriptions were presented and discussed with colleagues in a research group at the university. The group gave us valuable comments, such as how to formulate the text more precisely, how to complement

TABLE 1 Interview guide.

1. What makes a good nurse?
2. What does it mean to be a professional nurse?
3. What values do you consider as most important in nursing?
4. What is your perception of the connection between theory and practice in nursing?
5. How do you understand nursing knowledge?
6. Is nursing knowledge something you and your fellow students are talking about and have been talking about for the past 14 days?
7. What knowledge do nurses need to practice good nursing?
8. How is nursing knowledge expressed in clinical nursing?

TABLE 2 Example of analysis.

Meaningful unit	Initial codes	Codes	Themes
<i>Care and justice, to care is to see the whole person and contribute with the help and time that the patient needs (4)</i>	Professional values	Values	Values—a prerequisite of nursing knowledge
<i>You have to be caring, and ... you must be calm. It is important to take time, time I think is really the most important value you can have as nurses (7)</i>	Personal values		
<i>Be fond of people ... and have a desire to and thrive on providing care and use skills and knowledge to help others where needed (6)</i>	Human manners		
<i>I think it's very broad, ... but nursing knowledge I think is really just wanting what's good.... nursing knowledge is to know a little about everything to help as many people as possible, ... It's very difficult to put into words, in a way (2)</i>	Broad and blurry knowledge	Broad and blurry knowledge	Nursing knowledge—an umbrella of knowledge
<i>...I think nursing knowledge is really just wanting good (2)</i> <i>... say an auxiliary nurse and a nurse, we do a lot of the same things, but a nurse has the medical responsibility and procedures, so to speak. So, I find it difficult to answer exactly what a nurse is (7)</i>	Vague demarcation of nursing knowledge		

TABLE 3 Participants in this study.

Participants	1	2	3	4	5	6	7	8	9
Male/Female	F	F	F	F	M	F	F	F	F
Age (year)	21	28	25	21	28	28	26	35	31
E/V	-	E	E	-	E	E	-	V	V

Note: E = prior graduate qualification (i.e. economy, marketing and literature); V = prior vocational professions.

the textual content and be more empirical in the paragraph of findings. Both researchers have participated in all phases of the analysis by discussing thoughtfully and systematically questions about the dataset, such as what, how and why (Braun & Clarke, 2019). Both researchers are experienced qualitative researchers. The Consolidated Criteria for Reporting Qualitative Research was used for reporting the study (Tong et al., 2007).

## 5 | FINDINGS

Although we tried to recruit participants from both sexes, the sample ended up with one man and eight women with a mean age of 27 years (21–35), which reflects the gender distribution in nurse education in Norway. Four participants had degrees from other disciplines, and two had worked in vocational professions before entering their nurse education (see Table 1).

In all, the findings showed that the participants regarded values as being important and as a prerequisite for nursing knowledge. However, the students had no common perception of nursing knowledge beyond that they saw values as a part of nursing knowledge. They found it difficult to define nursing knowledge and to distinguish it from other subjects. The thematic analysis resulted in two themes: values—a prerequisite of nursing knowledge, and nursing knowledge—an umbrella of knowledge.

### 5.1 | Values—a prerequisite of nursing knowledge

The findings reveal that the students experienced there to be a gradual transition between what they consider to be values like professional values, personal values and simply generally good human manners.

Most participants emphasised that values are most important in nursing knowledge. They considered values to be even more important than practical skills and theoretical knowledge. There was broad agreement among the participants on which professional values were most important: respect for the patients' autonomy, empathy, humanity, justice and to be able to care for the patients. As students reflect:

... respect for the patient's autonomy. I think that's perhaps the most important thing for me anyway. To care, attempt to preserve the patient's dignity... (5).

... respect for all human beings... that one has different opinions and views on life or... managing to maintain

a professional attitude regardless.... or in other words consider the patients... how they experience things and how they want it to be.... I don't know if it is perhaps about respect ... (8).

Furthermore, some students were concerned about justice as an important value.

... care and justice. Yes, I think maybe that's what's most important (4).

The participants described values that we interpreted to be in a gradual transition between professional and personal values, such as being considerate, keeping calm in difficult situations, delegating, wanting what's best for the patient and taking the situation and the patient seriously.

One should treat all equally ... I mean, not in the same way, but equally, put your own attitudes aside, do your job...(9).

Personal values were identified as to be kind, to listen, be calm, be honest, be secure, to put their own feelings aside, to see the whole patient and to have confidence in patients' experienced reality.

It's important to take the time; time I think is really the most important value you can have as nurses, taking the time that things take, even if that's usually not how things are in the real world (7).

Some of the students seemed to find it difficult to differentiate between values and simply good manners, such as being punctual, to be considerate and to keep your cool.

... be precise and accurate, that is... be punctual, be careful, to the extent that it can be called a value (5).

A clinical view was emphasised as important; but also, to not go beyond your own competence, to take your time, to be precise and exact and to be updated on knowledge.

Of course, it's empathy... Conscious of their professional role, behaving professionally and wanting what's best for the patient. Setting their own feelings aside (1).

The participants claimed that values are both professional and personal, but they also emphasised good manners. Even though the students listed the values described above as most important, they also emphasised knowledge as basic in nursing profession.

## 5.2 | Nursing knowledge—an umbrella of knowledge

The participants sketched a broad and blurry picture of their understanding of nursing knowledge. They characterised nursing knowledge as having 'knowledge of everything'. However, all the students emphasised the importance of having knowledge of natural science subjects and pharmacology, anatomy, physiology, infection control, knowledge of disease processes and medications were described as the most important subjects.

I think you should have knowledge about different disease processes and extensive knowledge of medications, effects, side effects and how to follow up afterwards.... what has perhaps been most important has been anatomy, and understanding how the body works, because that gives us more of the basics, all these initiatives, they make more sense when you understand the anatomy behind it all (7).

Some of the participants also emphasised that they needed knowledge to observe any side effects of medication and to understand how and why they were performing procedures, but this in a general way, not specific to nursing. One student listed almost everything that they had learned during their nurse education as nursing knowledge.

...a lot of theoretical knowledge, such as anatomy, physiology, and knowledge from everything you have learned from the study with basic nursing, infection control..... (6).

The students described the nursing knowledge as blurry. Some students described nursing knowledge in a more general manner, connected to practical skills and including ethics and care, recognised through documentation and careful treatment. Others expressed nursing knowledge both as individual and different and linked to chores, like cleaning the floor or administering medicine. The participants later struggled to define nursing knowledge and to distinguish it from other professions. As one student stated, it is very hard to put into words.

I really put in everything, from being a chef, to doing wound care, to caring for a seriously, critically ill person. It's a very umbrella-like term in my eyes, but if I'm going to reflect on what sets me apart from other professional groups, I guess it's that I have a clinical gaze for assessing the situation, that I have a lot of

knowledge, and I hope there is also some of this in my fingertips (3).

The definition of nursing knowledge was difficult to give for the students. However, one of the participants meant that the boundaries of nursing knowledge were comprehensive and, therefore, might be misunderstood by others.

The limit is in the holistic patient-oriented work, and that we are the only professional group in the health care system that always has continuous contact with patients. And it's not because we are "a jack of all trades", it's because that's exactly what it is, it's the whole that is our profession. People misunderstand that we can be used for everything, and that is not the case, but that we are the link, that we are the foot soldiers for lack of a better expression, and that is such a fundamentally important function. And that it involves technically and professionally strong theoretical knowledge; it is a theoretical and advanced profession (5).

Some students did not see nursing theory as a natural part of nursing knowledge, but rather as outdated knowledge and to a small degree discussed as an important part of nursing. Most of the students meant that nursing theory and nursing theorist were in some ways passé in relation to the students' practical performance. As one student stated:

...my experience and the experience of several fellow students are that they [nursing theorists] are a bit out of date, I am not going to say they are not relevant in today's practice, but it will not be quite right because it is not possible to implement (7).

Others again recognised the need for nursing theory and appreciated that it affected their understanding of nursing, but the emphasis on nursing theory compared with other subjects in nurse education was experienced as out of date by the students. Some of the students saw the potential of studying nursing theories and that this could contribute to form their professional practice.

...it forms our worldview, I feel, at least if we actually bother to get into it, not everyone does. It also forms the glasses through which we see the rest of our professional practice, as it were. That is what is nice about the nursing theorists (5).

The term nursing knowledge, described by nursing students, represented a broad general picture of knowledge. However, the students found it extremely difficult to define nursing knowledge specifically and listed almost everything that goes on in a hospital. They emphasised theoretical knowledge to be linked to the natural sciences, and few saw nursing theory as a relevant part of nursing knowledge.

## 6 | DISCUSSION

The findings showed that the students emphasised values as a prerequisite for nursing knowledge. However, studies show that nurse educators disseminate various definitions of nursing and emphasise values related to nursing differently (Mottian et al., 2022; Poorchangizi et al., 2019). This might be one reason why students find it difficult to grasp the nursing knowledge and values. The findings reveal that the students emphasised the normative aspect in nursing as being the most important. The relationship between nursing knowledge and nursing might be seen as what Abbott (1988) highlights that academic knowledge, as here nursing knowledge, justifies professional work, as here nursing, by elucidating its foundations and tracing them to cultural values (p. 54).

Grimen (2008) underlined that the practical dimensions of the health sciences have a normative side, which not only include the use of knowledge but also demands moral, political and juridical assessments (p. 72). The normativity might be seen in what the students refer to, in our interpretation, as personal and professional values such as honesty, integrity, fairness, respect, empathy, responsibility and accountability. The individual and personal approach that many nurses have in relation to nursing values might contribute to the vagueness the students report when considering their theoretical and practical placements study throughout the education progress. The Norwegian National regulation guidelines for nurse education (2019) do not describe the content of the nursing values. However, the students have lectures and curriculum literature in professional ethics. Professional ethics include healthcare professionals' norms and characterise clinical ethics as interactions between multiple actors with different perspectives on values, knowledge basis and roles. The values that the students in this study revealed as important were autonomy, empathy, humanity and justice. These values are underlined both in the curriculum and in ICN which designates nurses' values as *respect, justice, empathy, responsiveness, caring, compassion, trustworthiness and integrity* (2021, p. 3). The students were aware of the values required to become a professional nurse but had difficulties describing the meaning of values related to what are personal and what are professional values. Rassin (2008) pointed out that *no research has been carried out examining the relationship between nursing expertise and personal and professional value systems* (p. 616). Personal and professional values might overlap but do not necessarily do so. This might be related to a gradual transition between professional and personal values. This is in line with Schmidt and McArthur (2018), who pointed out that nurses traditionally find it difficult to define which professional values matter in nursing. If we suppose that nursing knowledge consisting of fundamental patterns (e.g. see Kim, 2010), we still need to explain values as a major part in the theoretical reflection on science. To clarify the position of values in nursing knowledge, Zanotti and Chiffi (2016) argue that nursing values ought to give

an orientation to nursing practice. They also state that nursing values are essentials required for identifying the right dimension of nursing knowledge. This knowledge expresses features belonging to both science and art (Zanotti & Chiffi, 2016). This is in line with Abbott (1988) that drew lines between professional knowledge and values by highlighting that knowledge is the currency of competition and that professional knowledge legitimises professional work by elucidating the basis of knowledge and cultural values of the discipline (p. 102).

The findings show that students emphasised both values and factual knowledge. This corresponds to Risjord (2011), who claims that practical ethical reflection demands details of a case and requires knowledge of both values and facts (p. 498). This brings the discussion further on to consider that nursing students have a broad and blurry picture of what nursing knowledge consists of. The students struggle to define nursing knowledge and found it hard to describe. They used words like an umbrella, a symbol term that covers almost everything from precise knowledge in anatomy and physiology, practical skills, knowledge of everyday life and to be humane. This is in line with other studies that show that the epistemology of nursing knowledge is challenging to define and lacks a unifying framework (Decker & Hamilton, 2018; Wallis, 2010). Martinsen (2006) claims that caring is based on the patient's situation and requires a 'ought to' for nursing, and our position is that nursing care requires actions based on knowledge. Clinical reasons raise normative questions, more precisely ethical and emphatic issues (Eriksen, 2001). To care for a patient, nursing students need to understand the patient's situation and still ask the patient questions like 'can you explain the pain, and how do you feel'. This requires that students combine theory, normativity and empirical knowledges. The National regulation guidelines for nurse education in Norway (2019) do not describe in plain words terms like nursing knowledge or nursing theory. It is timely to ask questions about the reasons for omitting these substantial terms in nurse education and the nursing profession.

In what way the different arenas of education influenced students' understanding of nursing knowledge was not a theme in this study but is an interesting question. Educating nursing students is a responsibility between two enterprises, higher education and the health services, which have two different logics. Higher education main goal is to educate students to a profession and health services main goal is to treat and care for patients, which may result in tensions and conflicting interests between higher education and health services (Larsen et al., 2002).

The students' experiences of a blurry body of nursing knowledge might be understood in different ways. The perceived blurriness may be due to an increasingly complicated health service, which requires that the students must have a broad body of knowledge and an ever-changing focus. This is in line with Jensen et al. (2022) findings that show that nursing was conveyed as both individualised and unlimited. A question that needs to be asked is whether the individualised and unbounded perspective on nursing is a consequence of a

vagueness as to what the content of nursing knowledge is, especially for students. Related to Risjord (2010) the hierarchy system in health services might be a reason of the blurry nursing knowledge since the nurses' role are largely invisible. Another concern is what happens when we are not able to express our profession in clear and accurate terms outside the inner circle. To gain knowledge in this changing landscape, new types of knowledge will continue to be evident and contextual.

## 6.1 | Strength and limitations of the work

The strength of this study is that, to our knowledge, few studies have investigated the students' perception of nursing knowledge. The participants found the topic quite interesting and were willing to share their experiences. A limitation of this study is that the sample is relatively small. Another potential limitation is related to the authors' perceptions, which may have affected the analysis of the data, as with any study of this kind. However, we found it difficult to observe the participants' nonverbal communication due to the use of the digital platform, Zoom. Both authors work at a university as researchers and educators in nursing at all levels and are interested in epistemological issues in nurse education. Based on these experiences, we developed the idea of pursuing these assumptions through systematic research. This knowledge might have informed both the questions asked and the interpretations. However, we have tried to maintain an awareness about personal experiences that may have influenced the analysis through an ongoing, critical discussion within the research team.

## 6.2 | Recommendation for further research

Based on our findings, we recommend further research to investigate nursing students' perceptions of nursing knowledge in a broader context, by using quantitative methods such as a questionnaire. It may also be of interest to do a longitudinal study and follow these students by interviewing them at 1 and 3 years after their graduation. It might also be valuable to interview experienced nurses about how they perceive nursing knowledge and how they understand values in nursing practice.

## 7 | CONCLUSION

In this study, we wanted to gain more knowledge about nursing students' experiences of nursing knowledge. The students considered values to be important and vital to becoming a professional nurse. The individual and personal approach that many nurses have in relation to nursing values may yield a vague picture of what nursing is. Few students seemed to find sufficient words to describe the specifics of nursing knowledge, and most of them struggled to define its

limits. As the situation in Norway indicates that we will have a serious shortage of nurses in the coming years, there is a need to discuss what nursing knowledge is and what it is not, so that we may define the profession's responsibility.

## AUTHOR CONTRIBUTIONS

The project was conceived by Kari Toverud Jensen. Both authors made significant contributions to the work's design, as well as data acquisition, analysis and interpretation. Both authors were involved in writing the work and critically revising it for important intellectual content. Both parties have agreed on the final version to be published. We have both agreed to hold each other accountable for all aspects of the work, including ensuring that any questions about the accuracy or integrity of any part of the work are thoroughly investigated and resolved.

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## FUNDING INFORMATION

There has been no funding.

## CONFLICT OF INTEREST STATEMENT

No conflict of interest.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

## ETHICS STATEMENT

Permission to carry out the study was obtained from the head of department at the university, Department of Nursing. Furthermore, the study was approved by the Norwegian Centre for Research Data (NSD, project nr. REDACTED). Students received written information about the study and gave their informed consent by sending the first author an email, which was stored in a password-protected file. The students were informed that they were completely free to withdraw at any point in the study. The authors did not know the students. The data were anonymised and stored in a locked cabinet, in accordance with current guidelines at the university and in accordance with General Data Protection Regulation. We used an app [Nettskjema—University of Oslo (uio.no)], which is a secure solution for online data collection. It was done a risk analysis (ROS) at the start of this study, related to data management and the sensitivity of the data. Since this study deals with students who are to some extent in a vulnerable situation, the study was considered having a medium degree of sensitivity.

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## REFERENCES

- Abbott, A. (1988). *The system of professions: An essay on the division of expert labor*. University of Chicago Press.
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Braun, V., & Clarke, V. (2022). *Thematic analysis a practical guide*. SAGE Publication Ltd.
- Brinkmann, S., & Kvale, S. (2015). *InterViews: Learning the craft of qualitative research interviewing*. Sage.
- Cash, K. (2009). Clinical autonomy and contractual space. *Nursing Philosophy*, 2(1), 36–41.
- Clarke, L. (2011). So what exactly is nursing knowledge?. *Journal of Psychiatric and Mental Health Nursing*, 18, 403–410. <https://doi.org/10.1111/j.1365-2850.2010.01685.x>
- Decker, V. R., & Hamilton, R. M. (2018). The nursing knowledge pyramid. A theory of the structure of nursing knowledge. *Advances in Nursing Science*, 41(3), 293–302. <https://doi.org/10.1097/ANS.0000000000000204>
- Eriksen, E. O. (2001). *Demokratiets sorte hull – om spenning mellom fag og politikk i velferdsstaten*. Abstrakt forlag.
- Ewertsson, M., Bagga-Gupta, S., & Blomberg, K. (2017). Nursing students' socialisation into practical skills. *Nurse Education in Practice*, 27, 157–164. <https://doi.org/10.1016/j.nepr.2017.09.004>
- Finfgeld-Connett, D. (2008). Qualitative convergence of three nursing concepts: Art of nursing, presence and caring. *Journal of Advanced Nursing*, 63(5), 527–534. <https://doi.org/10.1111/j.1365-2648.2008.04622.x>
- Grimen, H. (2008). Profesjon og kunnskap. In I. Molander & L. I. Terum (Eds.), *Profesjonsstudier*. Universitetsforlaget.
- ICN. (2021). International Council of Nurses. [https://www.icn.ch/system/files/2021-10/ICN\\_Code-of-Ethics\\_EN\\_Web\\_0.pdf](https://www.icn.ch/system/files/2021-10/ICN_Code-of-Ethics_EN_Web_0.pdf)
- Jensen, K. T., Knutsen, I. R., & Knutstad, U. (2022). Nursing – personal, under threat and without demarcation lines. *Sykepleien Forskning*, 17, e-89628. <https://doi.org/10.4220/Sykepleienf.2022.89628en>
- Kim, H. S. (2010). *The nature of theoretical thinking in nursing* (3rd ed.). Springer.
- Larsen, K., Adamsen, L., Bjerregaard, L., & Madsen, J. K. (2002). There is no gap 'per se' between theory and practice: Research knowledge and clinical knowledge are developed in different contexts and follow their own logic. *Nursing Outlook*, 50, 204–212. <https://doi.org/10.1067/mno.2002.127724>
- Martinsen, K. (2006). *Care and vulnerability*. Akribie AS.
- Mottian, S. D., Roets, L., & Maboe, K. A. (2022). Interpretation of the concept 'nursing': Utilisation in nursing education and practice. *Curationis*, 45(1), a2351. <https://doi.org/10.4102/curationis.v45i1.2351>
- National regulation guidelines for nurse education. (2019). Forskrift om nasjonal retningslinje for sykepleierutdanning. LOV-2005-04-01-15-§3-2. <https://lovdata.no/dokument/SF/forskrift/2019-03-15-412?q=forskrift%20for%20sykepleierutdanning>
- Poorchangizi, B., Borhani, F., Abbaszadeh, A., Mirzaee, M., & Farokhzadian, J. (2019). The importance of professional values from nursing students' perspective. *BMC Nursing*, 18, 26. <https://doi.org/10.1186/s12912-019-0351-1>
- Rassin, M. (2008). Nurses' professional and personal values. *Nursing Ethics*, 15(5), 614–630. <https://doi.org/10.1177/0969733008092870>
- Risjord, M. (2010). *Nursing knowledge: Science, practice, and philosophy*. Wiley-Blackwell.
- Risjord, M. (2011). Nursing science. In Gifford (Ed.), *Handbook of the philosophy of science, Volume 16: Philosophy of medicine*. Elsevier BV.
- Schmidt, B. J., & McArthur, B. C. (2018). Professional nursing values: A concept analysis. *Nursing Forum*, 53, 69–75. <https://doi.org/10.1111/nuf.12211>
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal of Quality in Health Care*, 19(6), 349–357. <https://doi.org/10.1093/intqhc/mzm042>
- Wallis, S. E. (2010). Toward a science of metatheory. *Integral Review*, 6(3), 73–120.
- Zanotti, R., & Chiffi, D. (2016). A normative analysis of nursing knowledge. *Nursing Inquiry*, 23(1), 4–11. <https://doi.org/10.1111/nin.12108>

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