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Expert nurses' perceptions of the relevance of Carper's patterns of knowing to junior nurses.

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Corresponding Author:	Louise Mary Terry, PhD SFHEA LLB FIBMS London South Bank University Romford, UNITED KINGDOM
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	London South Bank University
Corresponding Author's Secondary Institution:	
First Author:	Louise Mary Terry, PhD SFHEA LLB FIBMS
First Author Secondary Information:	
Order of Authors:	Louise Mary Terry, PhD SFHEA LLB FIBMS
	Graham Carr, MRes MSc, RNT, RN
	Joan Curzio, PhD RN
Order of Authors Secondary Information:	
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Abstract:	This study explored with expert nurses in the UK how nursing wisdom can be developed in new and junior nurses. Carper's patterns of knowing and Benner's novice-to-expert continuum formed the theoretical framework. Employing a constructionist research methodology with participant engagement in co-construction of findings, data were collected via two separate cycles comprising four consecutive sessions followed by a nationally-advertised mini-conference. Empirical, ethical, personal, and aesthetic knowing were considered evident in junior nurses. Junior nurses in the UK seem to lack a previously-unrecognized domain of organizational knowing without which they cannot overcome hegemonic barriers to the successful development of nursing praxis.

Title: Expert nurses' perceptions of the relevance of Carper's patterns of knowing to junior nurses.

Dr Louise Terry PhD SFHEA LLB (Hons) FIBMS

Department of Adult Nursing and Midwifery

School of Health and Social Care

London South Bank University

101 Borough Road

London SE1 0AA

Tel: +44(0)20 7815 8405

Email: terrylm@lsbu.ac.uk

Graham Carr MSc, RNT, RN (Corresponding author)

School of Health and Social Care

London South Bank University

101 Borough Road

London SE1 0AA

Professor Joan Curzio PhD RN

Visiting Professor School of Health and Social Care

London South Bank University

101 Borough Road

London SE1 0AA

Statements of Significance

Statement # 1: What is known or assumed to be true about this topic:

In recent years, UK nursing has been criticized in several reports highlighting failures to care. Benner's novice to expert continuum helps explain the transition from novice to expert nurse. Benner explains that nurses pass through five levels of competency: novice, advanced beginner, competent, proficient, and expert. In 1978, Barbara Carper suggested that four "patterns of knowing" which are (a) empirics, the science of nursing (b) aesthetics, the art of nursing, (c) personal knowledge and (d) ethics or moral knowledge, encompass the dynamics of the nurse-patient relationship. Chinn and Kramer espouse the additional importance of emancipatory and socio-political knowing for nursing.

Statement # 2: What this article adds:

This report presents evidence from a research project exploring the transfer of nursing wisdom for a domain of 'organizational knowing' to be added as a pattern of knowing within nursing which we believe will aid the development from newly-qualified or junior nurse to expert nurse. If nurses can learn to navigate and negotiate institutional systems successfully, the art of nursing with its person-centered focus can regain its rightful place. Without knowing the organization within which they practice, nurses can feel powerless, frustrated and trapped within a hegemonic pattern that is disadvantageous, or develop unquestioning acceptance of the status quo.

INTRODUCTION

This report presents evidence from a research project exploring the transfer of nursing wisdom

for a domain of 'organizational knowing' to be added as a pattern of knowing within nursing.

We believe this will aid the development from newly qualified or junior nurse to expert nurse.

Knowledge is a necessary component of wisdom.[1] Linderman *et al.* define knowledge as "a fluid

mix of framed experience, values, contextual information and expert insight."[2(290)] Sternberg sees

wisdom as more than simply "the power of judging rightly and following the soundest course of

action".[1(234)] Instead he defines it as "the application of tacit knowledge as mediated by values

towards the goal of achieving a common good".[1(236)] He argues that "we need to guide people to

develop wisdom" since it is "what enables people to use knowledge to good ends."[1(246)]

Linderman *et al.*[2(290)] identify that to transfer knowledge from experts requires "appreciating the

complexity of knowledge and the role wisdom plays in leadership". In nursing, the work of

Benner[3] and others is useful for understanding the transition from novice to expert nurse. Benner

explains that nurses pass through five levels of competency: novice, advanced beginner,

competent, proficient, and expert.[3(13-34)] In the United Kingdom (UK) registered nurses are

prepared via a free, bursary-supported three year program of study. Fifty percent of the student's

time is spent in the university and 50% in clinical placements. From 2014, all newly qualified

registered UK-trained nurses will hold degrees. Most student nurses are attached to a 'host'

organization (a National Health Service (NHS) Trust) that may operate several hospital sites.

Frequently, their first job as a registered nurse is with that host organization. At the point of entry

to the profession, newly qualified nurses will have been deemed sufficiently competent to

register with the UK Nursing and Midwifery Council. Most newly qualified nurses need support

and their knowledge is still developing. Therefore, Benner's interpretation of competence means that most newly qualified nurses fall within Benner's Advanced Beginner[3(22-24)] stage. Newly qualified nurses are employed on NHS Band 5 (a salary scale with defined competencies). Junior nurses are those employed on Bands 5 and 6. Benner's Competent stage is reached when nurses are efficient, conscious, confident, analytic planners of care who no longer need supporting cues.[3(25-27)] This usually occurs when they have been doing the same or similar job for two to three years. At the next stage, Proficient nurses perceive situations holistically, have deep understanding, recognise aberrant patterns, and have advanced decision-making ability.[3(27-29)] Benner's Expert nurse is a fluid, flexible, and highly proficient performer with intuitive understanding of situations.[3(31-34)] Such nurses have the ability to zero in on the essence of even unfamiliar problems to produce effective solutions.

Despite the insights of Benner and others, how to develop the higher levels of proficiency (or nursing wisdom) remains uncertain. In 1978, Barbara Carper[4] expounded four "patterns of knowing" (or "domains of knowledge"). These drew on her analysis of "the conceptual and syntactical structure of nursing knowledge."[4(216)] They are (a) empirics, the science of nursing (b) aesthetics, the art of nursing, (c) personal knowledge, and (d) ethics or moral knowledge. These patterns encompass the dynamics of the nurse-patient relationship.[4 5 6] Indeed, Clements and Averill[7] suggest these were encapsulated in Florence Nightingale's earliest writings on nursing. Carper defines knowledge as "the patterns, forms and structures that serve as horizons of expectations and exemplify characteristic ways of thinking about phenomena." [4(216)] Knowledge differs from "what it means to know" which is internalized 'knowing'. [4(216)] To internalize knowing means perceiving and understanding oneself and the world. Carper's work continues to

have international impact on nursing care.[8] [9] [10] [11] However, worldwide, intuitive, or tacit ways of

knowing seem demoted to women's wisdom or perceived as "irrational."[12(58)] Healthcare

increasingly emphasizes empirical knowledge and evidence-based care.[10] In practice,

experienced nurses use a combination of rational, evidence-based care and intuitive, experiential,

tacit, personal knowledge.[13] Studies have identified the attributes of nurse expertise.[14] Yet, the

process of translating nursing expertise into practice skills and behaviors, educating for, and

fostering these in junior nurses remains difficult.

Nurses struggle to meet the needs of modern healthcare systems.[15] Nursing is increasingly

technologically driven but often challenged by limited resources.[16] Internationally, more

countries are opting for nursing to be an all-graduate profession. Higher academic qualifications

are usually associated with improved patient outcomes. Unfortunately, higher qualifications are

sometimes seen in the UK as decreasing nurses' ability to care. Public trust in nurses has been

damaged by damning reports of patient neglect and abuse.[16] A tension between theory and

practice continues to challenge nurse education internationally.[17] International research agendas

are being developed to improve the uptake of knowledge in practice.[18] Higher levels of

professional practice embrace rationality, theory, artistry, and tacit knowledge.[19]

Knowledge, ways of knowing, and nursing care are clearly linked. Carper's seminal treatise[4]

generated a significant body of reflective work including Johns.[20] Some authors like Berragan[21]

have explored *what* nurses know and *how* nurses know (her emphasis). Others have developed

additional patterns of knowing. White[22] added "socio-political knowing" as necessary. Speed &

Luker[6] suggest that Carper merely gives "an" identity to nursing. Therefore, far greater attention

should be given to the socio-political context within which nursing is practiced. Paley *et al.*[23] explain how Munhall[24] previously added "unknowing". This is being open to recognizing limitations in knowledge. According to Chinn & Kramer[25] Carper's four patterns of knowing should be positioned within an outer ring of emancipatory knowing. They view this as essential for nursing leaders to achieve the transformations that secure improvements in care. Jackson *et al.*[26] also incorporate emancipatory knowing into their model of nursing leadership. Nurse managers recognize that front-line nurses have to critically appraise situations, prioritize care, and balance competing interests. Such skills are essential for developing wisdom according to Sternberg.[1] Regardless of differences across national systems, nurse educators, and clinical practice share a common goal. They want to develop a nursing workforce capable of delivering care of the highest standard. Proficient, insightful, and holistic practitioners consistently demonstrate intuition, innovative practice, visionary leadership, and self-awareness. They transform care. Such nurses inspire and are inspired. Junior nurses need developing beyond Benner's Competent stage.[3] Expertise may take at least two years post-qualifying to achieve.[27] If a nurse's development over time stalls or regresses, nursing care may suffer.

METHODS

There is a need to understand what might be lacking in junior nurses that has led to reports of poor nursing care in UK hospitals.[16] The aims of the project were to (1) explore Carper's patterns of knowing with expert UK nurses to understand what nursing wisdom and knowledge comprises; (2) identify how novice/junior nurses can be developed into expert nurses; and (3) develop an explanatory concept map.

Study design

Carper's patterns of knowing in nursing and Benner's novice to expert continuum formed the

theoretical framework. A constructionist research approach was employed. This reflected the

responsibility felt by all involved in the project regarding how education and practice shape

nurse development.[28] A Steering Committee comprised of Expert nursing leaders and researchers

supported the research team. Constructionism emphasizes the way people or groups construct

and make meaning of their experience. It emphasizes the place of language-based interactions

between people. It allows taken-for-granted knowledge, including the history and culture of

groups, to be critically appraised. It supports concept identification. Solutions to problems can be

formed through the reconstructing of what is already known. The triggering problem for the

study was poor nursing care in some UK hospitals.[16] The research team comprised two nurses

and one non-nurse healthcare professional, all qualified nurse educators. Participants were all

nurses with a minimum of five years' post-qualifying experience of caring for patients. All felt a

sense of 'responsibility' for fostering and developing wisdom in newly qualified and junior

nurses. The critical constructionist approach posited by Latimer[29] as suitable for nursing

research influenced the research design. Therefore, the study employed multiple layers of

inquiry. These are shown in Table 1.

Stage 1

The first stage had two consecutive cycles. Cycle 1 participants met monthly for two hour

sessions from October 2010 – January 2011. Cycle 2 comprised four fortnightly sessions (May –

July 2011). Each cycle had four, reflective, facilitated discussion sessions. These were audio

recorded and transcribed verbatim immediately post-session. The lead facilitator was the same

person. Other members of the research team were present for engagement and field note-taking.

Each session explored one of Carper's four patterns. Prior to commencing the study, participants

were provided with a copy of Carper's paper.[4] The first session of both cycles explored

participants' understanding of Carper's patterns of knowing. Most participants who had been

qualified more than fifteen years were familiar with her theory. In addition, Session 1 focused on

Personal knowing; Session 2 explored Empirical knowing; Session 3 explored Ethical knowing;

Session 4 explored Aesthetic knowing. A series of open questions and prompts were drawn from

published literature (see Table 1). Between sessions, the research team read the transcripts and

analyzed by coding to identify evidence of patterns of knowing, central themes, and emerging

constructs. These were summarized and presented to the groups at the start of each subsequent

session. This allowed co-construction and interpretation of findings, "critical reflection and

conscious reflexivity."[30(8)] Then, the facilitator would start exploring the next scheduled pattern

of knowing. The Aesthetic and Ethical sessions included activity work. This was photographed

and reflected using photo-elicitation techniques for themes and constructions of knowing in

nursing. During the final session of Cycle 2, a co-created conceptualization of knowing in

nursing was drawn. This revealed how participants saw Benner's[3] work on nurse transition from

novice to expert as central. Stage 1 findings were presented at the Stage 2 mini-conference.

Stage 2

Mini-conferences are an emerging research tool supporting a collegiate atmosphere.[31] The

collegiate atmosphere allows the final constructs to be seen as belonging to nurses nationally.

The mini-conference was designed to allow further exploration of ways of knowing and the

transition from new to expert nurse. It was six hours' in duration (held in December 2011) and

was nationally advertised in the nursing press. Stage 1 participants were sent personal

invitations. With the support of the Steering Committee, three themes, constructs, and materials

to be further explored at the mini-conference were agreed. Three keynote speakers of national

esteem, all nurses with doctorates, were given the Stage 1 findings and constructs. Each prepared a key theme presentation to deliver prior to each breakout, audio-recorded discussion session. The presenters also drew on their own research and experience. They had the freedom to challenge our preliminary findings. The key themes were (1) What does it mean to be a nurse in the early 21st century? (2) Ethics and institutional issues: how do you be a caring nurse and meet targets? (3) Translating into practice: education to support role transition and developing Nursing Wisdom. A presentation on the project and its findings to date was made by the research team. The emerging concept map, list of nursing qualities, and other material from Stage 1 were displayed as stimulus items (posters) on walls to foster reflection. Other stimulus items included purposefully selected poems on nursing (written by student and qualified nurses). Post-it notes and marker pens were available so participants could add comments and insights during the day. After each keynote session, participants separated into one of two groups exploring key constructs and themes. The facilitated breakout sessions were each led by one of the research team, audio-recorded, and transcribed verbatim.

Data analysis

Data analysis was ongoing throughout the study. During Stage 1, data were analyzed with a principal focus upon patterns of knowing. At the end of Stage 1, it became clear that Benner's work was seen as seminal to the development of nurses. The theoretical framework of the study was modified to incorporate Benner's theory as well as Carper. Consequently, data from Stage 1 were reanalyzed to reflect the dual influence of patterns of knowing and Benner upon nurse development. The research team independently read, reread, and coded all the Stage 1 data and noted themes, sub-themes, key messages and constructs. Stage 2 data were analyzed using both threads to inform the development of insights. The team, supported by the Steering Committee,

conducted a final abduction stage. This stage synthesized everything and allowed agreement regarding findings, constructs, and the finalized concept map.

Sample

Purposive sampling and email invitations were used to recruit 'expert' nurses. These were defined as senior nurses working in acute care hospital settings with a minimum of five years' post-qualifying nursing experience in clinical practice. Stage 1 participants were recruited from London and South East England. Five clinical nurse participants (P1-P5) were recruited for Cycle 1 after the Chief Nurse in their respective hospitals had circulated information about the study. All had over twenty years of nursing experience and held very senior nursing management roles (Band 8 or above). The senior management role of these participants meant it was hard for them to attend all sessions. Therefore, a second cycle was implemented with members of an established nursing leadership (Band 7) group. This allowed for more sustained engagement. A nurse educator, commissioned by hospitals in London and South East England to develop leadership skills, circulated information about the study. These participants provided perspectives of nurses who were no longer 'junior' but were not yet in the highest levels of nursing management. The nine participants (P6-P14) in Cycle 2 had between 5 and 20 years' experience. At the conference, seventeen participants (5 to over 40 years' experience) and the three keynote speakers participated in one of two groups (P9 and P15-P22 in group 1; P2 and P23 -P32 in group 2) each facilitated by a member of the research team.

Study Rigor

Lincoln & Guba (1994) emphasize that studies must demonstrate trustworthiness and authenticity.[31] The cyclical, two-stage approach enhanced rigor by encouraging reflexivity and validation. Participants could reflect between sessions and refine their responses over time. This

allowed for reflective challenge. Using more than one group at Stage 1, and with Stage 2 being opened up to nurses from across the UK, helps ensure transferability. Using an established group for the second cycle in stage 1 provided additional trustworthiness since participants were already working well together. The study design enabled "multiple accounts of (the) social reality"[32(377)] that is nursing to be obtained. It allowed the authenticity of accounts to be verified. Reliability was ensured by detailed field notes being taken during all sessions which were analyzed alongside the verbatim transcribed recordings. During the cycles of Stage 1, two members of the research team conducted the analysis with the principal researcher reviewing all transcripts, coding, and analysis. At the end of Stage 1 and for Stage 2, analysis was carried out by all the team members. Further oversight was provided by the Steering Committee. The inclusion of a non-nurse healthcare professional in the research team allowed for additional questioning of statements, assumptions, and constructs.

Ethical Approval

National Research Ethics Service approval was obtained (East London 3 REC: 10/H0701/39). National Health Service (NHS) Research Governance approval was granted by each of the employing hospitals from which participants were recruited for Stage 1 data collection. The University Research Ethics Committee gave approval. Approval for the study amendment (for a second cycle at Stage 1) was obtained. Written consent was obtained from all participants including conference delegates. Confidentiality of participants and NHS organizations was maintained throughout. Anything that might compromise patient safety would have been addressed in line with professional and organizational responsibilities.

RESULTS

Findings from this study are presented with supporting quotes regarding patterns of knowing and nurse development. There is an illustrative story from participants that shows how junior nurses,

who were relatively advanced in terms of experience, had failed to progress to Benner's

Competent stage. Table 2 presents illustrative quotes that show patterns of knowing exhibited by

Proficient and Expert nurses compared with those demonstrated by nurses needing development

to reach Benner's Competent stage.

Personal knowing

Although the modern nursing identity is in flux,[33] there was great personal pride in the

profession: "You have got to be a certain way to be a nurse. You've got to be professional" (P7).

There was pride in their personal strength, resilience, humor, and the friendships they had made:

"And strength too. Sometimes you think 'Oh my God' and you get on and laugh, and you make

great friends with nursing." (P11). Nursing impacts on nurses and changes or develops their

personal qualities. The professional is the personal – expert nurses have no separation.

Empirical and Aesthetic knowing

Evidence-based practice is an important benchmark for much nursing practice, but the term

'nurse scientist'[34] was felt to be alien. Participants considered nursing to be both an art and a

science: "I don't think you can be a nurse just based on theory or science bits. There is an art at

the same time and the way they approach a patient." (P6).

Ethical, Socio-political, and Emancipatory Knowing

Participants expressed concerns that many newly qualified and junior nurses lacked the qualities,

knowledge, and skills they expected. Data analysis also revealed examples of socio-political[22]

and emancipatory[25] knowing as well as unknowing.[24] There were hints that some nurses

perceived some patients as 'undeserving' (P13). There was sadness at the perceived loss of UK

nursing's ethos of changing lives for the better.

Nurses needing development

Participants identified that the current skill base achieved by newly qualified nurses is adequate to performing core nursing skills. Regarding the transition from newly qualified (Benner's Advanced Beginner) to Competent or Proficient nurse[2], participants identified that there is something "extra" that is lacking. Too many junior nurses lack fluidity of practice performance, joined-up thinking, and the ability to prioritize what is important:

"I've got three of them [Band 6 nurses] that have been with me for two years…one is fine and the other two I am having huge problems with…without that ability to pull it together, prioritize their workload, time manage, have rapport" (P1).

There was a profound sense of distress expressed at the quality of new and junior nurses. Some nurses were failing to meet Benner's Advanced Beginner stage, let alone the Competent stage:

"…doing interviews here with newly qualified nurses and even more experienced staff nurses, with some of them, it's blood-curdling to think this is the calibre of people applying for the post that you're looking for. Something's gone wrong somewhere with the process" (P3).

One participant related a story that confirmed her own status as an Expert nurse and showed a lack of ability, on the part of two nurses, to progress through Benner's stages to Proficient nurse. Both were at least Band 6. Their deficiencies may have cost a patient her life:

"Earlier this year I had an awful experience and unfortunately the lady died. We have a system within the six surgical wards that one of the Band 7s will carry the surgical bleep at weekends and you go around and trouble shoot on any of the surgical wards. I was doing my ward rounds and…I asked staff if all was okay and they said 'we've got this one lady that's a bit drowsy and the doctors have seen her and she's dehydrated. He's prescribed a drip.' I could easily have walked away from that…[I said] Let me have a look at this lady. Now, on this EWS [Early Warning System], this scoring system we have, she was white. They had recorded her

observations and they'd come up as white (completely normal), nothing to be done. Within

fifteen seconds of seeing the lady I picked up that she was so ill. I was horrified and said 'let me

look at her chart.' The chart was white, blood pressure was okay and everything. I spoke to her

and asked her 'How are you feeling, Mrs X?' She could just about answer and was

mumbling…Her husband was there and I asked him what had happened. She had been knocked

down on a zebra crossing the day before and she was in with a fractured leg. I asked the nurses a

few questions...I stepped outside of the bay and said we need to get the doctors to see this lady

urgently. I contacted the orthopaedic doctors and I was told she's dehydrated and we've

prescribed IV fluids. I asked if they realised she was on Warfarin and all I was told was that she

hasn't had Warfarin while she's been in hospital. But she was on Warfarin, knocked down on a

zebra crossing. I looked in the notes and she had complained in A&E the day before about

banging her head. I couldn't get the doctor up to the ward. I overrode what he was telling me and

bleeped the medical registrar, and fast, and asked him to come up to the ward. The lady ended up

having a CT scan. She had a huge bleed…and died the next day. The moral of my story is that

the nurses…one of them was junior and the other was in charge of the ward…they had…not

picked up that this lady was so critically ill…she'd been like that since 7.30 that

morning…gradually becoming more drowsy…I was so shocked that they hadn't been able to

look beyond these guidelines that we have that they hadn't been able to look any wider than that

and see the patient" (P5).

The junior nurses had enough insight to mention the patient when asked but lacked the ability to

critically evaluate the EWS in light of the patient history. As long as they followed the hospital

guidelines that seemed sufficient. The Expert nurse knew how to navigate the system when her

call for assistance was rejected by the designated doctor and knew who to contact instead. She

knew how to convey the urgency of the situation.

Proficient and Expert nurses

Descriptions of the qualities of a Proficient or Expert nurse emerged (Table 3). Regarding Expert

nurses, one of the poems that inspired the most discussion among conference participants was

Silver Horses[35] (extract reproduced with permission).

Between the noises and the white coats in the corridors

run the nurses mounted on the silver horses,

spear in hand against the insurmountable difficulties,

This poem makes the ordinary (the 'silver horse' trolley and 'spear' syringe) strange – a style of

reflection. It captured the emotional subtext of the group discussion which related to how Expert

nurses 'see' and 'know' differently. Participants felt it reflected their creativity in clinical

practice and innovative leadership. Overcoming 'insurmountable difficulties' is what Expert

nurses do. They expressed their experiences of the constant battle to overcome barriers to good

patient care. Service pressures and the increasingly utilitarian nature of the NHS were the main

reasons given. Participants felt betrayed. Moral distress was clearly present.[36] One identified the

risk of 'burnout': "Nurses who are passionate about their profession…really good nurses that

have dropped out, senior nurses, all that wisdom is lost to us…" (P20).

Revealing a pattern of Organizational knowing

It became evident that neither the existing patterns of knowing, nor the challenges of the NHS,

provided a complete insight into why there have been recurrent failures of nursing care in the

UK. There seemed to be something preventing some junior nurses from developing into

Proficient or Expert nurses. Participants referred to the Staffordshire hospital, where patients

died due to nursing neglect.[16] They recognized how organizational systems and manager-nurse dynamics could be both barriers to, and facilitators of, good patient care: " if the rot's set in, which clearly it had, there were probably a lot of good nurses that were unable to speak out." (P4). "We need to focus on influencing the organization…if we put you into an environment where you can't practice these skills…it's not going to achieve anything for the patients" (P14). Our data suggests the existence of a previously unrecognized pattern that we have called Organizational Knowing. This helps explain some of the problems participants were identifying. Junior nurses wanted to ensure the best outcomes for their patients, but seemed unable to achieve them because they did not understand their employing organization sufficiently: "Politically and organizationally we [Expert nurses] know the organization we're working in. They [junior nurses] don't know where they [rules, priorities, targets] have come from, why they are doing them, what is the reason for them" (P8). Increasingly, administrative and institutional working patterns, characterized by data collection and paperwork, form the greater part of a nurse's working day. Organizations fear litigation and see rigid control as the answer. This stifles a nurse's ability to be an innovative problem solver. Time to be caring is restricted: "The system has totally lost the perspective that it should be about the patient" (P4).

Participants in all groups identified gaps in basic understanding of how the ward or organization works. This affects patient care. One conference participant identified that understanding the structure of the healthcare system was the 'most important' thing she had learnt (P9). This knowledge came through being part of the Leadership group. At that point she had been qualified at least five years. Understanding how to work effectively within a system and not to be trapped or tricked by it is problematic. This affects new nurses and those who are working in junior positions. Some junior nurses might have several years of post-qualifying experience in another

country. They lack understanding of how UK healthcare organizations work. The next story

could arguably fit with socio-political knowing, however it seems centered more on and within

the individual organization than White's[22] interpretation. The nurse explained how she

circumvents the utilitarian approach of bed managers. A 'bed manager' is a senior manager

whose job is to monitor bed availability within hospitals to ensure beds are freed for the next

patient. They may not be a healthcare professional. "It's like bed pressures, [if] they know

you've got a patient who's died, they want your bed and I'll never declare who's died until they

[deceased and relatives] are off the ward…If you didn't know that and you were a newly

qualified nurse saying "I've got somebody who's just died", before you know it they're handing

over patients." (P10).

Participants expressed a belief, and acceptance, that there is bullying within the system: "They

will just bully you" (P29). A bullying, hierarchical culture was also suggested as a reason people

leave nursing. Organizational hierarchies can prevent nurses practicing at the level of proficiency

they desire. In contrast, a participant with army nursing experience noted that nurses were better

able to work as a multi-disciplinary team at Camp Bastion as "there aren't the organizational

barriers…[so]…they've been able to develop that [nursing] wisdom precisely because they

aren't in one of these organizational presences" (P17).

In summary, administrative and organizational aspects of healthcare institutions increasingly

form a barrier to the provision of good nursing care. Junior nurses need supporting to develop

confidence in their actions. An attribute of Benner's Competent nurse is standing up for

themselves and their patients. To do this, nurses need to understand how to work effectively

within a system and not become trapped or tricked by it.

DISCUSSION

For participants, nursing was grounded in its application rather than being a theoretical construct. Participants seemed to concur that academic awards or length of service does not mean improved clinical practice. High quality nursing requires clinical judgment not just knowledge and practical skills.[37] Evidence-based care is legally seen as the exemplar. Paley *et al.* argue that failures to prioritize empirical knowledge get "in the way of delivering improved services to patients." [23(699)] Since 1978, when Carper's work was first published, nursing and healthcare delivery in the UK has changed. The erosion of service capability and shortage of resources were evident from participants' comments. It was clear that 'black' humor remains a key part of coping and resilience. Nurses employ this when facing situations that challenge their values or professional standards.[38] According to participants, administrative tasks that now form much of a nurse's day drive out the art of nursing. Aesthetic knowing seems sidelined. More nurses are increasing their specialist knowledge and becoming advanced practitioners. Their role as pioneering innovators, nursing scholars, and clinical leaders[7] may emphasize empirical knowing over aesthetics.[10] Participants drew on considerations such as evidence-based practice and their professional code of practice in their clinical decision-making. They regretted the fact that service pressures comprised nursing care. However, while many have commented on the essence of nursing[39] nurses struggle to define what it is that they do.[21] It is little wonder that non-nurses do not understand how nurses' clinical practice makes a real difference to patient care. The argument that others (including managers) do not see the 'truth' of nursing is long standing.[40] Our findings suggest that increased managerialism has produced a health service that focuses heavily on external performance measures.[41] Practice can alter negatively through bureaucratic demands for rigid adherence to guidelines, protocols, and rules.[42] This distortion in

values is evident in patient records. The focus is on physical aspects at the expense of holistic,

patient-centered care.[43] When individual patient focus becomes lost, harm becomes more likely.

Practitioners look to the rulebook for answers. This is a characteristic of Benner's Advanced

Beginners. They rely heavily on guidelines and protocols, such as the EWS in the story above. A

vicious circle develops; each time that harm is revealed, organizations set in place more rules.[42]

Doing good and avoiding harm were often contrasted by participants. They felt that the model of

managerial utilitarianism predominated inside the NHS. This centers on controlling budgets,

sometimes at the expense of patient-centered care.[16] Understanding the socio-political[6] context of

nursing does not fully explain how nurses can address the administrative and institutional

demands that affect nursing practice. Benner briefly mentions these influences.[3(170)] Our findings

indicate the need to recognize how a lack of organizational knowledge impedes nurses in

delivering bedside care. This is not simply a problem relating to newly qualified nurses. Entering

a new healthcare system, for example, as an immigrant, can mean having less organizational

knowledge than a newly qualified nurse who trained within the system. Inside a familiar system,

nurses may be at Benner's competent stage or above but may not understand organizational

situations holistically. Consequently, what appears 'normal' in the new healthcare system may

unquestioningly be accepted as 'correct'. If a nurse does not know how to obtain more sheets

when supplies run out, patients may be left for hours in soiled linen as in Staffordshire.[16]

Our proposed 'Organizational' knowing seems to explain why Benner's[3] anticipated transition

from newly qualified nurse to higher stages of practice and leadership does not always

materialize. Synthesizing our findings enabled us to construct a new conceptual model of nursing

development (Figure 1). In addition to drawing on Benner, our model draws on the work of

Chinn and Kramer.[25] Their model of nursing praxis and phronesis provides a conceptualization

of the qualities of good nurses that our participants identified (see Table 3). Personal knowing is

positioned vertically. Experience over time naturally impacts upon the person, even if it results in

tacit knowledge [1(236)] as opposed to explicit knowledge. Student nurses need to have sufficient

personal, empirical, ethical, and aesthetic knowing in order to qualify as registered nurses. Our

study indicates that UK student and newly qualified nurses lack socio-political knowing and

emancipatory knowing. Participants suggested that these can develop over time as the new or

junior nurses are exposed to more situations. A necessary condition, however, for junior nurses

to be able to move from Benner's Advanced Beginner stage through to the Proficient (Praxis)

stage, is for them to have organizational knowing. If relevant patterns of knowing are missing,

nurses cannot achieve "mastery in the discipline." [4(222)]

Therefore, attention needs to be paid to developing the organizational knowing of new and junior

nurses. When a nurse joins a ward, the focus, arguably, is upon embedding the newcomer within

the team as part of the organizational socialization process.[44] If performed poorly, the knowledge

absorbed is often characterized by a poor conceptual grasp. The desire to conform to the ward

culture and be part of "the team" becomes overly prized behavior. As Dufresne *et al.*[45] explain,

novices look for the most obvious solution and, if successful, continue to apply that solution. An

example would be taking sheets from another ward rather than challenging organizational

restrictions on supplies. The 'novice' in this situation may not be Benner's novice; it could be

any nurse who lacks the ability to question, to recognize aberrant patterns (Benner's Proficient

stage), or recognise their own 'unknowing'.[24] Of particular concern must be Dufresne *et al.*'s

point that "when the novice gets the right answer for the wrong reason, misconceptions are reinforced and become even harder to overcome."[45]

Overstretched ward managers often lack the time to share their "know-how", let alone their "know-who." If the passing on of basic, operational, organizational knowledge is left to them, junior nurses may fail to develop their operational skills. Carper[4(13)] identified that 'critical attention' has to be paid to 'what it means to know' and what knowledge is 'of the most value'. Our contention is that, if nurses can learn to navigate and negotiate institutional systems successfully, the art of nursing with its person-centered focus can regain its rightful place. Without knowing the organization within which they practice, nurses feel "powerless"[46] and "frustrated".[46] They can remain silent, "trapped within a hegemonic pattern"[25(66)] that is disadvantageous. They may develop unquestioning acceptance that 'this is the way things are'. Furthermore, when nurse managers fail to understand their own organizations,[47] or organizations lack stability,[48] failures are more likely to occur. The economics of healthcare delivery can mean nurse managers "feel pressured to hasten new nurses' adjustment." [44(2068)] Nurse to nurse bullying is still a common experience.[44] Organizations are "complex, ambiguous and paradoxical and the challenge is in dealing with that complexity".[48(124)] Understanding an organization, in part, requires socio-political knowing in order to navigate around or address challenges. Our argument is that there is a sub-set of basic, organizational knowledge that new and junior nurses require in order to deliver good patient care. They need insight into the systems, goals, and values of the organization. They need to understand the processes and hierarchies – the "know how" and "know who". Without developing the pattern of organizational knowing in nurses so they understand the world within which they are practicing, there will continue to be barriers to

their development. They cannot challenge injustice or improve nursing care until they understand

how their own organizations work. The praxis associated with Benner's Proficiency requires

development of the patterns of socio-political knowing and emancipatory knowing. These foster

high quality nursing care, reflective practice and commitment to social justice.[49] Ultimately,

developing organizational knowing is a necessary step to becoming an expert or wise nurse since

this helps overcome hegemonic barriers to nurse development.

LIMITATIONS

Study limitations include the difficulty recruiting experienced nurses at a time of intense service

pressures within the NHS. Consequently, the study design underwent modification and the

number of participants was smaller than hoped, but the cyclical approach to data collection

enabled development of rich insights.

CONCLUSION

Carper's patterns of knowing are still reflected in the creation of the new nurse. The development

of organizational knowing seems important in the transition and development of new or junior

nurses. This provides them with the ability to challenge varied administrative, ward-based, and

institutional barriers to good patient care. We believe that an absence of organizational knowing

may explain some problems of poor patient care. Clinical practice areas should consider how

newly appointed nurses receive induction. Nurses need to "know how" within their organization,

then they can develop the "know why" and "know who". Once their nursing practice and

organizational knowing are sound, they should be working at least at Benner's Competent stage.

Then the emancipatory and wider socio-political knowing, necessary to developing their

leadership as conceptualized in Chinn and Kramer's explication of nursing praxis[49] can be

fostered. From praxis, phronesis, or the nursing wisdom shown by Expert nurses, can develop.[50]

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Table 1:   Overview of Nursing Wisdom project constructionist design and example
                questions

Table 2:   Patterns of knowing and example quotations reflecting nursing wisdom

Table 3:   Characteristics of good nurses

Figure 1:   Patterns of Knowing and the Development of Nursing Wisdom

Table 1 Overview of project design and example questions

Stage 1	Example questions
Cycle 1: Session 1: Introductory session and Personal knowing	
Overview of the research study and key ideas to be explored. Summary of Carper's patterns of knowing: exploration of reactions, challenges, nature of knowing, knowledge and nursing wisdom. Post-session analysis by research team.	What is nursing practice? Is Carper still relevant 30 years on? How are nursing expertise and nursing wisdom related? Who have you encountered who exemplifies nursing wisdom? How do we identify and capture professional growth? How can we facilitate the development of nurses?
Cycle 1: Session 2: Building on previous session and exploration of empirical knowing	
Insights from previous session shared. Exploration of empirical knowing, nursing theories, nursing research and science Discussion of the translation of theory and evidence-based practice by new and junior nurses. Post-session analysis by research team	What theories are used in the nursing context? What is nursing science? How does nursing science differ from other types of science? How the use of theory in practice stimulated? How do junior nurses utilize theory in their practice? How can empirical knowing be improved?
Cycle 1: Session 3: Building on previous session and exploration of aesthetic knowing	
Insights from previous session shared. Exploration of aesthetic knowing, holistic nursing care, interpersonal relationships, individualised care planning. Discussion of the translation of aesthetic knowing into practice, creativity in nursing and ways to improve the art of nursing Post-session analysis by research team	What main theories or principles underpin ethical judgments? What are the impacts of personal and nursing codes of ethics, NHS/ organizational, and patient rights? How are interests balanced and ethical judgments made? How do junior nurses make ethical decisions? How can the translation of ethical knowing be improved?
Cycle 1: Session 4: Building on previous session and exploration of ethical knowing	
Insights from previous session shared. Overview of the role of ethics in nursing and patient care, changes with society, spirituality and values, impact of NHS organizational values. Identifying traits of good, expert or wise nurses. Synthesizing insights into personal, empirical, ethical and aesthetic knowing.	What main theories or principles underpin ethical judgments? What are the impacts of personal and nursing codes of ethics, NHS/ organizational, and patient rights? How are interests balanced and ethical judgments made? How do junior nurses make ethical decisions? How can the translation of ethical knowing be improved?
Revisiting of all Cycle 1 data by the research team	
Stage 1: Cycle 2	
Session 1: Exploration of Personal knowing as previously, drawing in insights from Cycle 1.	
Session 2: Exploration of Empirical knowing as previously, drawing in insights from Cycle 1.	
Session 3: Exploration of Ethical knowing as previously, drawing in insights from Cycle 1.	
Session 4: Exploration of Aesthetic knowing, and synthesising insights. Participants asked to bring to the session a piece of artwork, poem, poster or other visual presentation that captured the essence of nursing and nursing wisdom for them. Exploration of the art of nursing, decision-making and reflective practice. Discussion of the development of nursing knowing and the transition from competent junior nurse to good or wise nurse **Co-Creation of a preliminary concept map synthesising insights from all sessions**	

Revisiting of all Stage 1 data by the research team and steering committee Sharing summarized findings with keynote speakers for Stage 2: Conference	
Stage 2: Interactive, data-collecting Mini-Conference	
Conference Theme 1: Being a nurse in the early 21st century Keynote presentation followed by Break out groups x 2	
Summary of insights from Stage 1 shared and explored. Exploration of why people become and remain nurses, the qualities of a good nurse, the maintenance of nursing vision when moving up the career ladder. Discussion of how to define nursing in the early 21st century	Why do people become nurses? How has nursing changed you? How important are strength and resilience in nursing? What would you add to the list of qualities of good nurses? How do you know if you are a good nurse or not? How do you retain your nursing vision when you move into senior roles?
Conference Theme 2: Administration, ethics and institutional issues Keynote presentation followed by Break out groups x 2	
Summary of insights from Stage 1 shared and explored. Exploration of the impact of technology on nursing care and the art of nursing Exploration of the impact of the organization upon nursing, patient care and nurse decision-making Discussion of the impact of a target-driven, management-led health service upon nursing, patient care and nurse decision-making Exploration of ways to develop good nurses when organizational and administrative pressures are so challenging	How does increasing technology and documentation impact on nursing care and the art of nursing? What would you alter on this diagram of nursing development? How does organizational culture impact on nursing care? In what ways do you work the system?
Conference Theme 3: Teaching, role transition and developing nursing wisdom Keynote presentation followed by Breakout groups x 2	
Summary of insights from Stage 1 shared and explored Discussion of the potential impact of the UK move to an all-graduate nursing profession upon the nursing and the development of nursing wisdom Exploration of the elements of nursing wisdom and patterns of knowing Exploration of ways to develop the necessary patterns of knowing in newly qualified nurses and junior nurse to ensure their future development into expert or wise nurses	How can joined-up thinking be developed in new nurses? How does continuing education develop nursing wisdom? What works best in fostering and developing nursing wisdom? What elements of nursing wisdom would you add?
Reviewing all data by the research team, sharing constructs with the steering committee, refining concept map, preparing report for funding body, dissemination of findings	

Table 2 Patterns of knowing and example quotations

Pattern of Knowing	Proficient or Expert Nurses Illustrative Quotations	Nurses needing development Illustrative Quotations
Personal: Understanding of self, recognising what that self brings to situations, adopting reflective practice to become a better person and better nurse.[4]	"…the qualities that are going to make them very good nurses…their attitudes, their body language, their demeanour, and the way they interact with patients…connection or empathy there with their patients" (P4). "They are very caring and have empathy for their patients" (P8).	"You could see personal interest in some of the students when you interviewed them and that others only wanted to become a nurse because of the money and some security. You could see a difference in the way they work" (P12).
Empirical: Evidence-based practice, connecting theory to action, looking to research studies for justification of responses.[4]	"It's an essential part to have that underpinning knowledge, especially as nursing is so technical these days and the things that we're giving people, the chemotherapy, the radiotherapy, if we have no underpinning scientific knowledge of what we are doing…If we are going to be taken seriously as a profession, to be able to produce research that has rigor and is scientific…is fundamental…It leads to better practice" (P14).	"Unfortunately the girl failed yesterday (her clinical calculations exam which many NHS Trusts require registered nurses to take annually) and at the discussion at the end of it…The limitations of her knowledge and knowing where to go for help, advice, support and she couldn't get beyond I wasn't trying to catch her out or make her fail" (P3).
Ethical: Understanding personal, social, professional values. Focuses on the moral dimension of decisions, identifying what is right and wrong and recognising ethical conflicts.[4]	"…doing right for the patient… fairness, justice and equal rights for everyone, treating everyone with respect…acting in the correct way" (P1). "I want a nurse who knows what is important and has the ethical and moral courage to do the important things" (P10).	"There were some appalling nurses…a lot of it was down to laziness and once nurses qualified they went in the office and they sat on their backsides" (P31, identifying that current examples within the NHS of disinterested or lazy nurses are nothing new).
Aesthetic: The art of nursing, empathetic, intuitive but skilled responses, caring, responding to the whole. [4]	"It's from Picasso's cubism period. You really have to look at it to see what's there. I deliberately didn't color the water flowing under the bridge – you'll be able to determine where it is. Nursing's a bit like this; it's not your first impression. It's more than your first impression, there's more depth, more complexity" (P12, reflecting on a Picasso painting that she had redrawn by hand.	"Newer people are coming along with the science/theory and the research part engrained into them and for some people they cannot see beyond that…the things we learnt from our peers and practice is missing for some people coming along because they can't get it 'if it's not in research'…It's not in their book to be signed so it doesn't matter" (P2).

Unknowing: Being open to recognising that limits exist to own knowledge and that of others and being prepared to address areas of unknowing.[24]	"Knowing what you don't know, being open to change, open to listening to new ideas, not thinking that this is the way we've done it so it will always be that way" (P21). "Wisdom is the ability to change...to ask for help when you need it" (P18).	"I have a situation in my ward environment at the moment with somebody who just does not recognize when they don't know something" (P4).
Socio-political: Understanding the power structures within the political, social and economic world that constrain healthcare delivery and whose voices tend to be heard.[22]	"We need to be taking back to the Department of Health and to others who are in that powerful position to influence…look at what our priorities are, and why, and what, is the voice of nursing. It should be more prevalent…rather than just 'This is the way we do things at such-and-such hospital and I'm very lucky I work here'…The voice of nursing is much diminished" (P32).	"It's the Matrons and Ward Sisters who don't know the system they're working in. They have no idea how it works" (P19). "This is a good guy, who's a good nurse but not keeping up to date with the organizational changes" (P16).
Emancipatory: Having the capacity to reflect critically on the social, cultural and political status quo and understanding the underpinning drivers.[25]	"I wasn't exposed to a lot of things and when I came into nursing there were things I'd never heard of in my family… it was because I was so cosseted. Things I've come across in life can't faze me now…Nursing has brought that…There's an embracing of diversity and humanity…It's acceptance" (P3).	"Just last week, with some students we saw alcoholic after alcoholic. The students now are like 'let's give up. It's just another alcoholic'" (P3).
Organizational knowing: Understanding the organization, its hierarchies, systems, processes, goals and values.	"One of the big issues for my junior nurses is if they find someone who is clearly dying…they should be under the palliative team but they are not…the team works limited hours. I'll direct [my nurses] as to who to go to, to make those decisions…It's about knowing when to push and being prepared to take the flack that might come your way if you tread on people's toes" (P2).	"Because you've got very prescriptive guidelines which you frame your work within…[junior nurses] are not looking at the whole picture" (P5). Discussing a patient who did not want to be on a pressure-relieving mattress, whose doctor said she did not need it: "I was told 'Doctors don't know what they are talking about – she has to stay on it'…[because] of the [organizational] target to reduce pressure sores" (P26).

Table 3 Characteristics of good nurses

Personal Knowing	People skills; Emotional intelligence; Ability to create rapport; Sense of achievement; Ability to maintain a professional demeanour and environment.
Empirical Knowing	Technical skills and competence; Demonstrates, and promotes, nursing knowledge and skills to provide safe, effective care.
Ethical Knowing	A moral backbone; Positivity in patient care; Compassionate.
Aesthetic Knowing	Empathy; Intuition
Critiquing and Problem Identification	Anticipation of events and needs in order to plan and deliver better patient care; Prioritisation of workload; Able to see what needs to be done; Recognition of personal limits; Reflective and Reflexive practitioner.
Creative Solutions and Sound Judgment	Helps the patient to recover the ability to do what the nurse had to do when the patient was ill; Applies appropriate knowledge; Problem-solving skills.
Leadership and Negotiation	Effective time management; Confidence; Visibility (being seen doing nursing); Ability to stand on own two feet; Resilience and Strength – personal survival in difficult/challenging situations.
Global vision balancing all interests	Practical wisdom; Motivation to do the best for all patients, whether this is looking after their physical needs or emotional/spiritual needs; advocating for them; Demanding the resources or changes needed to carry this out. Ability to 'pull it all together', thereby showing global vision and balancing all relevant factors, interests, drivers, and influences.

Figure 1 Patterns of knowing and development of nursing wisdom

NOVICE

Personal Knowing

Empirical Knowing

Ethical Knowing

Aesthetic Knowing

Experience over Time

Hegemonic barriers -------------------------   --

Organisational Knowing

Critiquing

Questioning Skills & Problem Identification

Socio-political Knowing

Creative Solutions

Emancipatory Knowing

Leadership and Negotiation Skills

Praxis

EXPERT

Global Vision

Balancing all relevant Factors, Interests, Drivers and Influences

WISE

Sound Judgment

PHRONESIS