

Caring as the unacknowledged matrix of evidence-based nursing

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ABSTRACT

In this article, we explicate evidence-based nursing (EBN), critically appraise its framework and respond to nurses' concern that EBN sidelines the caring elements of nursing practice. We use resources from care ethics, especially Vrinda Dalmiya's work that considers care as crucial for both epistemology and ethics, to show how EBN is compatible with, and indeed can be enhanced by, the caring aspects of nursing practice. We demonstrate that caring can act as a bridge between 'external' evidence and the other pillars of the EBN framework: clinical expertise; patient preferences and values. Drawing on an influential EBN handbook, section 1 presents the aims and features of EBN, including the normative principle that EBN should take place within a 'context of caring'. We aim to understand this context and whether it can be neatly detached from the EBN framework, as the handbook seems to suggest. In section 2, we highlight the grounds for resistance to EBN from the nursing community, before mounting the argument that nursing practices can be understood fruitfully through feminist care ethics and/or virtue ethics lenses. In section 3, we deepen that analysis using Dalmiya's concepts of care-knowing and care as a hybrid ethico-epistemic virtue, which are ideally suited to the complex practices of nursing. In section 4, we bring this rich understanding of care into conversation with EBN, showing that its framework cannot be adequately theorised without paying proper attention to care. Caring can be neither an innocuous background assumption of nor an afterthought to the EBN framework.

FROM EVIDENCE-BASED MEDICINE TO THE EVIDENCE-BASED NURSING FRAMEWORK

In 1992, a group of clinical researchers at McMaster University published what would become a series of papers describing evidence-based medicine (EBM), positioned as 'a new approach to teaching the practice of medicine', requiring 'new skills of the physician, including efficient literature searching and the application of formal rules of evidence evaluating the clinical literature'. (Evidence-Based Medicine Working Group¹, p.2420)¹ These formal rules of evidence would de-emphasise clinical intuition and pathophysiological rationale, and give more weight to the results of clinical research as the basis for

clinical decision-making. Indeed, the practice of EBM would mean:

integrating individual clinical expertise with the best available external clinical evidence from systematic research. By individual clinical expertise we mean the proficiency and judgment that individual clinicians acquire through clinical experience ... By best available external clinical evidence we mean clinically relevant research, often from the basic sciences of medicine, but especially from patient centred clinical research. (Sackett *et al.*², p.71)

Soon after its introduction, EBM proliferated. An important factor was the development of the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) framework,³ which gave clinicians a structure for comparing the quality (or 'certainty') of evidence, and for developing evidence-based recommendations for clinical practice that privilege comparative population studies (ie, randomised controlled trials; RCTs). The GRADE framework has been adopted by more than one hundred organisations worldwide, including the UK National Health Service and the US Centers for Disease Control and Prevention. Although initially focused on clinical practice guidelines, EBM principles have become ubiquitous. Evidence-based practice (EBP) now encompasses other healthcare domains, including evidence-based public health,⁴ evidence-based mental health⁵ and evidence-based nursing (EBN).^{6,7} The first EBNⁱⁱ journals were founded in 1993 and 1998, and the first EBN handbook was published in 2005.⁸ Since then, EBN has become a dominant influence in nursing, with nursing associations such as the UK Nursing and Midwifery Council and the American Nurses Association endorsing EBP in their codes of practice.^{9,10} Moreover, teaching EBP approaches is becoming increasingly prevalent in nursing curricula.¹¹⁻¹³ Due to this growing demand and interest in EBN, it is particularly important to understand how EBPs affect nursing practices. In the nursing context, EBP is still defined as 'the integration of the best research evidence with clinical expertise and patient values to facilitate clinical decision-making' (DiCenso *et al.*⁸, p.4) but the definition is further tailored:

best research evidence refers to methodologically sound, clinically relevant research about the effectiveness and safety of nursing interventions, the accuracy and precision of nursing assessment

ⁱNaylor characterises this announcement as a 'successful rebranding and systematisation of clinical epidemiology with a view to promoting wider adoption of its toolkits and tenets'. [Naylor⁴³, p.1035-36]

ⁱⁱ*Worldviews on Evidence-Based Nursing* (<https://sigmapubs.onlinelibrary.wiley.com/journal/17416787>) and *Evidence-Based Nursing* (<https://ebn.bmj.com/>), respectively.



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measures, the power of prognostic markers, the strength of causal relationships, the cost-effectiveness of nursing interventions, and the meaning of illness or patient experiences. ... A key element of evidence-based clinical decision-making is personalizing the evidence to fit a specific patient's circumstances. (DiCenso *et al*⁸, p.4)

Both the EBM and the EBN definitions seem straightforward, common-sensical and desirable. Indeed, who would not want nursing to be based on the best available evidence that is also tailored to a specific patient's needs? The issue of concern here, however, is whether EBN's conceptual framework is suitable for the purposes of nursing practice. Given its narrow focus on 'best research evidence', how does this framework fit with other features of nursing practice? Answers to this question can be gleaned from a number of EBN handbooks,^{8 14} but for the purposes of this article, discussion will be restricted to Melnyk and Fineout-Overholt's *Evidence-Based Practice in Nursing & Healthcare: A Guide to Best Practice* due to its recent publication and broad reception.¹⁵ Indeed, the American Nurses Association standards of practice make reference to Melnyk and Fineout-Overholt's work specifically. (American Nurses Association¹⁰, p.29) We will show that the handbook's focus on and methods of appraising the 'best research evidence' are too narrow and not integrated with other important features of nursing practice.

According to Melnyk and Fineout-Overholt, healthcare has four aims: to 'improve patient experience through providing quality care, enhance patient outcomes, reduce costs and empower clinicians, leading to higher job satisfaction'. (Melnyk and Fineout-Overholt¹⁵, p.x) These aims are best met by following an EBP 'paradigm or worldview', (Melnyk and Fineout-Overholt¹⁵, p.xi) which integrates three sources/pillars of information: (1) the 'most relevant and best research' (Melnyk and Fineout-Overholt¹⁵, p.8) addressing a particular clinical question, which must be critically appraised by the clinician (ie, external evidence, which has been generated in a setting other than the one the clinician is currently facing); (2) the clinician's own expertise (ie, internal evidence); (3) the patient's and their family's preferences and values. Assessing whether external evidence applies to a particular patient in the given clinical setting is a key question for practitioners.ⁱⁱⁱ For now, let us take a detailed look at how Melnyk and Fineout-Overholt propose that clinicians and nurses engage in EBP. Seven steps are to be followed in this order:

0. Cultivate a spirit of inquiry within an EBP culture and environment.
1. Ask the burning clinical question in PICOT format.
2. Search for and collect the most relevant best evidence.
3. Critically appraise the evidence (ie, rapid critical appraisal, evaluation, and synthesis).
4. Integrate the best evidence with one's clinical expertise and patient/family preferences and values in making a practice decision or change.
5. Evaluate outcomes of the practice decision or change based on evidence.
6. Disseminate the outcomes of the EBP decision or change. (Melnyk and Fineout-Overholt¹⁵, p.17)

For the purposes of this article, we will focus on steps 0–4. The spirit of inquiry (step 0) is a 'consistently questioning

ⁱⁱⁱThis issue of how transferable and relevant external evidence is to a new situation has been discussed at length by philosophers of science and medicine who have been critical of EBM.^{44–48}

attitude towards practice' (Melnyk and Fineout-Overholt¹⁵, p.16) such that clinicians can challenge and scrutinise both their own practices and those of the institutions enabling these practices. Clinicians should not accept routine ways of doing things just because those are the ways in which a hospital or clinic has always operated. This critically reflective attitude provides the basis from which the other steps can be achieved.

The PICOT question (step 1) is a hallmark of EBP (cf.¹⁶) and contains the following elements: patient population (P), intervention/issue of interest (I), comparison intervention or group (C), outcome (O) and time frame (T). These elements guide the formulation of a precise question, the keywords of which can subsequently be used to search relevant literature databases. For example, rather than ask, 'How does physical massage affect lymphoedema in cancer patients?', a nurse might ask more specifically, 'In women with surgically resected axillary lymph nodes as part of breast cancer surgery (P), how does weekly lymphatic drainage massage performed by a nurse (I) compared with no massage at all (C) affect lymphoedema in the arm(s) (O) after 8 weeks of treatment (T)?' Not accidentally, the format of the PICOT question lends itself to comparisons between two interventions: one of the main sources of external evidence are RCTs, which are designed to answer questions like these. However, Melnyk and Fineout-Overholt acknowledge that sometimes—and, it should be added, maybe particularly often in a nursing context—clinicians might want to know about an 'issue of interest' rather than an intervention. In these cases, PICOT questions turn into PIOT questions because there is no comparison. For example, the nurse might ask, 'How do women with surgically resected axillary lymph nodes as part of breast cancer surgery (P) with lymphoedema (issue of interest) perceive the altered sensations, impaired range of mobility and different appearance of their affected arm(s) (O) in the 8 weeks following surgery (T)?' Addressing PIOT questions may be especially useful for helping nurses understand 'the meaning of illness or patient experiences', where 'meaning' questions are those aimed at 'describing, exploring and explaining phenomena being studied'. (DiCenso *et al*⁸, p.33) This is an important dimension of EBN, which is absent in EBM. However, an enhanced understanding of meanings and illness experiences on its own is not enough to achieve the first of the healthcare aims, namely, to improve patient experience through providing quality care.

Both PICOT and PIOT questions can next be used to search for and collect external evidence from various curated databases (step 2).^{iv} This step involves the 'hierarchy of evidence' in which systematic reviews and meta-analyses of RCTs are at the top, before RCTs themselves, followed by non-RCTs and well-designed case-control and cohort studies. (Melnyk and Fineout-Overholt¹⁵, p.243–244)^v Below these quantitative studies come qualitative studies, with systematic reviews of descriptive studies at the top, followed by evidence from single descriptive studies, and evidence from the 'opinion of authorities' (Melnyk and Fineout-Overholt¹⁵, p.18) at the bottom.^{vi}

^{iv}These include general biomedical databases such as PubMed and the Cochrane Library, as well as the nursing-specific Cumulative Index of Nursing and Allied Health Literature (CINAHL).

^vEBM theories of evidence value systematic reviews and meta-analyses not because they systematically survey and aggregate all relevant scientific evidence, but rather insofar as they aggregate only scientific evidence produced via RCTs.

^{vi}Leaving aside the question about whether evidence hierarchies are justified at all, it remains unclear why there aren't two separate hierarchies of evidence, one for quantitative and another for qualitative studies.

The hierarchy of evidence demands that, when a systematic review/meta-analysis of multiple RCTs is available, this evidence be considered at the expense of other studies' data. Where the question is about patient experiences or 'meaning', then qualitative evidence will be called for, but again, a systematic review of qualitative data trumps individual studies or anecdotal evidence. This strict hierarchy, and the primacy of RCTs, has been criticised on multiple grounds. For example, although RCT methodology allows experimenters to control for some sources of bias compared with other study designs, the hierarchy can obscure how biases can pervade the entire evidence base (eg, Borgerson¹⁷).^{vii}

Once the relevant studies have been gathered, the clinician critically appraises the evidence (step 3). This means assigning each study a place on the hierarchy of evidence and asking whether the data are valid (Were the research methods used the best available? Were patients randomly allocated to treatment groups? Were clinicians blinded to the intervention?), reliable (How big was the intervention effect? How variable was the effect?), and applicable (Were patients in the studies similar to the clinician's current patient?). If one or more studies make it through this appraisal, the clinician synthesises this information and draws a conclusion about whether there is sufficient external evidence about the intervention in question. What constitutes sufficient evidence is a matter of judgement. Melnyk and Fineout-Overholt contend, for example, that statistical significance 'cannot be the sole marker for whether or not a study finding is valuable to practice. Clinical meaningfulness (ie, the clinician can achieve similar outcomes to the study) is another mechanism that can assist clinicians in evaluating the value of a study's results'. (Melnyk and Fineout-Overholt¹⁵, p.145) Nurses will be left asking whether an intervention will achieve similar outcomes in their patients, which can only be definitively answered by performing the intervention and taking responsibility for the attendant risks.

Finally, the clinician must integrate external evidence (step 4) with their own clinical expertise (internal evidence), which includes knowledge about the specific patient and their family, the available resources of the clinic, and so on. Furthermore, during the decision-making procedure the patient's values/preferences need to be taken into consideration. For example, even if there is good external evidence from a meta-analysis of five rigorous RCTs that lymphatic drainage massage performed by a nurse does significantly improve comfort and limb mobility in patients after axillary lymph node resection, this may still not be the best course of action if, for instance, there are too few trained nurses to perform this treatment, or the patient lives too far away for a weekly journey.

EBN handbooks focus mainly on steps 1, 2 and 3: asking the right questions, searching for and collating evidence, and critically appraising it. Despite this seeming rigour, there remain open questions about the EBP process, ranging from how to cultivate curiosity in clinicians, whether a particular situation encountered by a nurse calls for a PICOT or PIOT formulation or something else entirely, and how evidence can be 'integrated' at the practical level. As illustrated in figure 1, Melnyk and Fineout-Overholt situate EBN clinical decision-making within

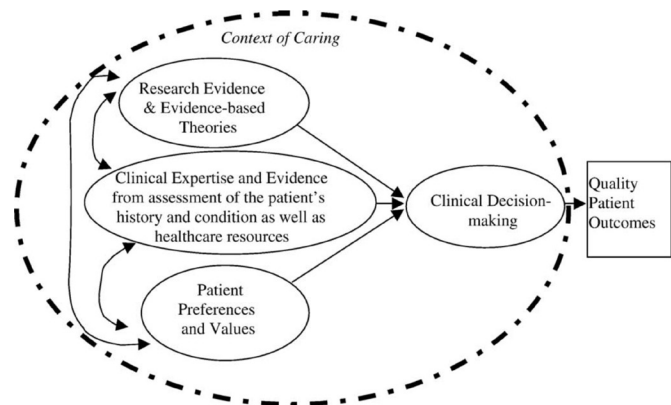


Figure 1 An illustration of clinical decision-making in the context of caring, as first depicted in Fineout-Overholt *et al*¹⁸ and subsequently adopted in the EBN handbook. Reproduced with permission from Elsevier.

a 'context of caring', commenting only that 'it is important to remember that high-quality healthcare also depends on the ability to deliver EBP within a context of caring, which is the merging of science and art'. (Melnyk and Fineout-Overholt¹⁵, p.29)¹⁸ This visualisation of the EBN process is remarkable on two counts. The first feature are the two-way arrows between (a) research evidence and evidence-based theories and (b) patient preferences and values, signifying that values inform evidence and vice versa. Provided there is rigour, proponents of orthodox EBM see evidence as value-neutral. Although interesting, we will not address this departure from mainstream EBM here. The second feature, which we focus on in the next sections, is the relationship between clinical expertise and this context of care, indicated by the dotted line encompassing the entire decision-making procedure. Is this context just an idle background assumption, a simple add-on to the rest of the EBN framework and process, or is it more complexly interwoven into the whole enterprise? How can we best conceptualise 'care' for the purposes of EBN?

NURSING AS CARING

To address these questions about the context of care, we begin by drawing attention to the resistance to EBN from nurses themselves, who argue that the rigid process can overshadow practices of care integral to nurses' work. We then pivot to describing two ways in which care can be usefully understood in nursing, namely, through care ethics/theory and virtue ethics lenses.

One refrain that appears in the nursing literature is the idea that caring, which still needs to be further elucidated, does not and cannot be driven by data as 'data' are conceived by EBN. In this spirit, Barker, a psychiatry nurse, writes, 'the nurse-patient process is not data based. Rather, it is a human-based engagement that must be guided by human values and theoretical principles of relevance to human engagement'. (Barker¹⁹, p.331) In a similar vein, Fawcett *et al* suggest that nursing theories can and do generate evidence, and evidence can give rise to theories across all four of the 'fundamental patterns of knowing in nursing'^{viii}—empirical, ethical, personal and aesthetic—rather than evidence being confined to the empirical aspects of nursing.²⁰

^{vii}Placing such great weight on RCTs can also give the false impression that only RCTs can establish causal connections between an intervention and an outcome.^{49 50}

^{viii}As influentially articulated by Carper.⁵¹

Porter, a nurse and sociologist, echoes this view, arguing that EBN focusses too heavily on a narrow construal of empirical knowledge at the expense of other patterns of knowing, which include the 'design of care'. (Porter²¹, p.3) Finally, nurses interviewed in the UK feel that 'caring' is the 'little things we're not supposed to do anymore', in part because the 'technical and managerial aspects of nursing work' are becoming more demanding. (Pearcey²², p.51) Together, these perspectives provide reason to question EBN's limited focus on empirical research evidence that can sideline the importance of other 'patterns of knowing', which include many of the caring aspects of nursing practice.

So, what exactly are care and caring in nursing? These concepts are commonplace in both the nursing literature and everyday usage, leading to difficulties in satisfactorily articulating a conceptual framework that speaks to the richness and diversity of nursing practice. For example, using concept analysis, Sourial finds that the term 'caring' has at least eight associated meanings, ranging from a moral stance, to a human trait, to a link with healthcare.²³ A recent meta-synthesis of forty-nine qualitative reports and nine concept analyses concluded that caring is 'a context-specific interpersonal process that is characterised by expert nursing practice, interpersonal sensitivity and intimate relationships'. (Finfgeld-Connett²⁴, p.196) Although this definition can serve as a starting point for further analysis, it is too vague for present purposes. One reason why there is no single definition of care in nursing is that the concept has entered the nursing literature from multiple theoretical perspectives. For instance, Travelbee suggests that human-to-human interactions, in which nurses recognise and emotionally connect with the human suffering of their patients, form the basis of good nursing care.²⁵ Watson associates nurses' caring with healing to distinguish it from the more medical-technical work of curing.²⁶ Benner and Wrubel take inspiration from Heidegger to show that caring manifests as the moral act of concern by a nurse for her patient.²⁷ Leininger emphasises the importance of caring for patients in ways that are appropriate to a patient's own culture.²⁸ And these are only a few well-known nursing theories that focus on caring.^{ix}

Nursing as caring: care ethics

Despite these disparate approaches, there is consensus that caring attitudes and practices are integral to nursing, even if not exclusive to or exhaustive of nursing.^x In awareness of the many frameworks for care, we now follow the lead of Collins, who has distilled insights from a range of care ethicists/theorists over the past 30 years,²⁹ to explore how care ethics provides one theoretical basis for caring in nursing.^{xi} We will then apply care ethics thus articulated to a clinical scenario from the EBN handbook to show that EBN is compatible with this approach. Collins suggests that the main normative idea and slogan of care ethics is that 'dependency relationships generate responsibilities'. (Collins²⁹, p.2) This slogan is supplemented by four claims, or normative commitments, that are meant to distinguish care ethics from other ethical theories, notably, deontological and utilitarian approaches.

^{ix}For recent surveys of caring approaches in nursing, see Risjord and Sellman.^{52,53}

^xThere is a large body of literature addressing the connections between care ethics and nursing, which we cannot do justice to in the available space, but for illustrative work see these edited volumes.^{54,55} Despite these ongoing conversations, relatively little attention has been paid to links between care and epistemology in nursing, which we address below.

^{xi}For overviews of how care ethics has developed from its inception as a 'feminine' morality into a broader, more robust political project, see Keller and Kittay, and Gary.^{32,56}

First, care ethics 'positively endorse(s) deliberation involving sympathy and direct attendance to concrete particulars'. (Collins²⁹, p.10) A classic example for this claim comes from Carol Gilligan's book *In a Different Voice*: 11-year-old Amy is asked to consider a thought experiment in which the husband of a dying wife cannot afford the medicine that would save her life. (Gilligan³⁰, pp. 25–55) Should he steal this medicine from a pharmacist? Instead of deciding on a yes/no answer based on deontological reasoning or a utilitarian calculus, Amy hesitates and tries to come up with alternative solutions. Could the husband negotiate with the pharmacist and pay in instalments? Could he get a loan to pay for the medicine? Would stealing land the husband in jail, making it difficult to care for his wife later? Questioning and deliberating are crucial to care ethics, suggesting that there is more than one way of arriving at a solution to a moral problem.

The second claim of care ethics is that relationships between people who value these relationships are central, and should be preserved and promoted. By trying to come up with solutions that do not involve stealing the medicine, Amy is attempting to preserve the relationships both between husband and pharmacist, and husband and wife. But given the strong tie between husband and wife, and the responsibility of husband to wife, Amy imagines the husband persisting in his endeavour to procure the drug despite the difficulties. She is after all his wife, and not an unconnected though needy person.

Third, care ethical agents display caring attitudes towards people with needs and interests, leading the agent's 'affects, desires, decisions, attention ... to be influenced by how the agent believes things are going with the interest-bearer'. (Collins²⁹, p.10) By thinking through the thought experiment, Amy recognises that the caring attitude the husband has towards his dying wife conflicts with his attitude towards the pharmacist who has his own interests. Importantly, agents themselves also have needs that must be taken into account.

Lastly, care ethical agents act such that their actions '(1) are performed under the (perhaps tacit) intention of fulfilling ... interests that the agent perceives some moral person (the recipient) to have and (2) where the strength of the demand is a complex function of the value of the intention, the likelihood that the action will fulfil the interest, and the extent to which the interest is appropriately described as a "need"'. (Collins²⁹, p.11) This final point highlights that caring involves actions; deliberating and having caring attitudes is not enough.

Even the seemingly simple example that Amy ponders, however, might not be resolvable in a way that fulfils everyone's needs, including the husband's own. Therefore, an important part of care ethics is the realisation that '(n)needs conflict and given the complexity of lived contexts, some hurt is inevitable no matter what we do. Thus, moral life is taking responsibility for a choice and its resulting omissions'. (Dalmiya³¹, p.6) Although it may be impossible for all needs to be met, this does not mean that performing some caring actions rather than others is an arbitrary choice. Care ethics is not a relativistic moral approach; the situational context both affords possibilities and sets limits on appropriate actions. For instance, we might think it would be wrong of the husband not to at least attempt procuring the medicine for his wife, even though the option of buying it outright from the pharmacist is not open to him.

Care ethics as just described can apply to nursing practice.^{xii} To see what this might look like, let us take a closer look at a

^{xii}Gilligan's approach has previously been advocated for by nursing scholars, specifically as it pertains to teaching and deliberation about

clinical scenario in the EBN handbook, which is supposed to illustrate the integration of patient preferences and values into the decision-making process:

Gillian has just started her shift at 7 AM. She receives report that the new mom, Mrs. Blum, in room 26B has a moderately distended bladder, cannot void, and will need to be catheterized; however, the patient has not been out of bed yet after her vaginal delivery at 5 AM. Gillian pops into 26B and tells the patient she will be in shortly to do her catheterization. She gathers her supplies to do a straight catheterization, and goes over it in her mind several times because she has not done a lot of these procedures. She walks into Mrs. Blum's room and notes that she is crying. Gillian realizes that her assessment has not been complete. She puts down her materials and lets Mrs. Blum know she is here to help. Mrs. Blum informs Gillian that all night the nurse caring for her and the resident who came in the morning were all focused on her emptying her bladder. No one asked about her baby, and she is concerned because the night nursery nurses did not bring back the baby for her early morning feeding. Gillian further assesses Mrs. Blum's bladder and asks her if she thinks she can void if she goes into the bathroom and sits on the toilet. She informs Mrs. Blum that after she voids, they will go to the nursery to see her daughter. Mrs. Blum agrees; after assessing Mrs. Blum's balance, together they walk to the bathroom. Mrs. Blum expresses appreciation for being able to sit on the toilet as the bedpan "is just unbearable." She promptly voids 450 mL of amber urine. Gillian then helps her to clean up and gets a wheelchair to conserve her energy so that she can focus on her daughter. On arrival at the nursery, Mrs. Blum is visibly relieved and pleased to see and hold her daughter. She indicates to Gillian that she cannot thank her enough for taking the time to treat her "like a person vs a procedure." (Melnyk and Fineout-Overholt¹⁵, p.221)

Can nurse Gillian be considered a care ethical agent? First, Gillian is tasked with catheterising Mrs. Blum, but on encountering Mrs. Blum we see how the concrete situation—Mrs. Blum crying—elicits what we can assume is a sympathetic response in Gillian. The situation requires deliberation about what to do. Instead of going ahead with the procedure, the nurse and patient discuss Mrs. Blum's needs: emptying her bladder and seeing her new-born. Second, Gillian and Mrs. Blum are in a professional relationship in which Gillian, in particular, has certain responsibilities. By the end of the scenario, we also notice how Mrs. Blum expresses her appreciation for Gillian, partly for treating her 'like a person' and partly for enabling her relationship with her baby. Third, Gillian exhibits a caring attitude by explicitly telling Mrs. Blum that 'she is here to help'. Fourth, the nurse undertakes a number of actions that are aimed at fulfilling Mrs. Blum's needs, namely, checking her balance, walking to the bathroom together, helping her clean up, and wheeling her to the nursery. Finally, by meeting Mrs. Blum's needs in the concrete ways Gillian does, she is rightly not allowing her own need (and her future patients' needs) to practice the catheterisation procedure take precedence. The care ethical analysis of this example suggests that the EBN framework can be brought in line with, or at least does not preclude, a care ethics approach to nursing.

Nursing as caring: caring as a virtue

Nonetheless, care ethics has not been without its critics. We mention two critiques here to highlight that care ethical frameworks are still being debated and continuously developing.

moral and ethical issues in nursing.⁵⁷

Indeed, scholars are increasingly advocating a pluralist care theory, discussion of which could further contribute to the nursing literature.^{32 xiii}

One criticism is that the four claims of care ethics, as described by Collins, are too vague to prescribe action. Instead of relying on these contextual claims, some argue that although a caring attitude is important for becoming attuned to the ethical features of a clinical situation, nurses cannot justify their actions through a caring attitude alone.^{33 34} In addition to a caring attitude, these authors contend, nurses need to use objective, principle-based reasoning to make ethical decisions, for example by adhering to the principles of biomedical ethics or codes of ethics.^{35 36}

A second criticism is that the claims of care ethics are not distinctive enough to warrant their own ethical theory. Virtue ethics especially can claim care as a virtue; virtuously caring agents also concern themselves with particular contexts, have caring attitudes, and perform caring actions. We tentatively endorse the suggestion that care ethics has important similarities with virtue approaches, paving the way for our discussion of Dalmiya's contributions in section 3. In nursing, Gastmans *et al* have drawn on neo-Aristotelian approaches to argue that the virtue of care is an altruistic disposition that 'manifests itself as a direct involvement by the bearer of the virtue in the well-being of the other'. (Gastmans *et al*³⁷, p.53)^{xiv} Similarly, in defending care from the first criticism above, van Hooft recasts caring as a virtue, asserting that '(i)f caring is a virtue then acting from that virtue will be acting well'. (van Hooft³⁸, p.189) To ensure that virtuous nurses deliberate using ethical principles, van Hooft suggests that one feature of virtuous action be the agent's 'understanding' of the field of nursing, including an understanding of large and disparate fields, ranging from physiology, psychology, practical know-how, ethical knowledge (eg, codes of ethics), self-knowledge, knowledge about specific patients, and noticing what patients need in a particular situation. Possessing this knowledge, he posits, is 'constitutive of the virtue of caring in the healthcare context' (van Hooft³⁸, p.195) and thus a prerequisite for nurses to act from the virtue of caring.

A second feature highlighted by van Hooft is the preparedness of a nurse to 'reflect on what he or she is doing or has done'. (van Hooft³⁸, p.192) That is, to consider the moral aspects of her work and reflect on particular relationships with her patients and colleagues. This feature seems particularly important because simply knowing the principles of biomedical ethics, for example, cannot guide action unproblematically; sometimes the principles conflict and adjudication is necessary.^{xv} In nurse Gillian, for example, we discern her preparedness to reflect in her mental rehearsal of the catheterisation procedure, which she knows she is not yet an expert at. We posit that this clinical scenario could also be read through a virtue ethics lens.

In these two proposals—care ethics as summarised by Collins and care as a virtue as described by van Hooft—there are multiple

^{xiii}One of the earliest criticisms was that care ethics is a 'slave morality', originating in women's private spheres and consequently naturalising and further entrenching gendered power hierarchies.⁵⁸ Paley has made an analogous criticism in the nursing context, suggesting that by focusing on care the nursing discipline legitimises and cements its low status compared with medicine.⁵⁹ However, these initial worries no longer hold sway with more recent articulations of care ethics.

^{xiv}A more recent defence of virtue ethics for nursing practice comes from Armstrong, though with a less explicit focus on care itself as a virtue.⁶⁰

^{xv}Beauchamp cautions that these principles should be understood 'less as norms (directives) that are applied ... and more as guidelines that are interpreted and made specific for policy and clinical decision making'. [Beauchamp⁶¹, p.184]

links between appropriate attitudes and actions, and nursing knowledge. However, it remains unclear how this knowledge is to be acquired. To answer this question, we now introduce Dalmiya's care-based epistemology, which brings together features from feminist care ethics and virtue epistemology. This move will help us understand how caring forms the matrix of nursing knowledge, and subsequently, in section 4, how caring in Dalmiya's sense holds the EBN process together.

DALMIYA'S CARE-BASED EPISTEMOLOGY FOR NURSING

Vrinda Dalmiya's overarching aim is to show that care is important not only for ethics but also for epistemology; caring and knowing are intertwined, which blurs the distinction between these domains.^{31 39 xvi} Explicating and applying her entire project to nursing goes beyond the scope of this paper. Here we want to show only how Dalmiya's conceptions of care-knowledge can fill in some of the gaps left by care ethics and caring as an ethical virtue.

Following in the footsteps of feminist care ethicists, notably Joan Tronto (Tronto⁴⁰, p.105–08), Dalmiya outlines five steps involved in the caring process: caring about—caring for—taking care of—care-receiving—caring about caring.^{xvii} In the first step, caring about, a normative valuation takes place in which a care receiver, such as a patient, begins to matter for the caregiver. According to one prominent Code of Ethics, nurses' 'primary professional responsibility is to people requiring nursing care ... (and nurses) share with society the responsibility for initiating and supporting action to meet the health and social needs of all people'. (The International Council of Nurses³⁵, p.7) As such there is a professional mandate to value care receivers in the way described by Dalmiya.

In the second step, caring for, there is an attitudinal shift in the caregiver, such that her interests become partially displaced by the needs of the care receiver. The nurse asks herself about the realities of her patient. In trying to understand her patient she goes through a process of empathy and/or imaginative identification with the patient. This step highlights an epistemic dimension of caring, namely that understanding the other is a proper part of caring. Dalmiya emphasises that caring is not only or primarily about emotions.

The third step, taking care of, is characterised by a volitional shift in the caregiver, such that the nurse takes actions that address her patient's needs. The caregiver and care receiver jointly negotiate (though not always verbally) what the needs and the good of the care receiver are; the caregiver takes on responsibility for the care receiver's good; and finally, the caregiver performs the labour to actualise the care. These actions can go awry in at least two ways: the caregiver can give unwanted attention to an unwilling care receiver, forcing her 'care' on them (a form of paternalism), or she can 'give in' to all the wishes of a care receiver (a form of 'martyrdom'). What's more, there are always more care receivers whose 'incessant cacophony of needs demanding to be met' (Dalmiya³¹, p.189) can threaten to overwhelm any given caregiver.

In the fourth step, care receiving, the care receiver can provide feedback and acknowledge the caregiver's efforts. This can

range from verbal communication to subtle gestures, but always presupposes the ability of the caregiver to recognise such signals and to adjust her attitudes and actions according to the feedback. Proper care receiving can thus go some way towards mitigating the problem of paternalistic nursing.

Finally, caring about caring arises from the initial normative valuation such that the 'commitment (is) not just to him or her, but to caring (for him or her); after all, when someone is acknowledged as being worth caring about, it is hardly possible to remain indifferent to whether or not we do care'. (Dalmiya³⁹, p.40) This reflexivity allows a caregiver to distance herself from the caring process, and try to understand the caring relationship itself.^{xviii} These cognitive steps, reflexivity and self-reflection, can allow a nurse to ask, for example, whether she is the right person to be providing care for a particular patient in this moment. Returning to nurse Gillian, given her lack of experience with catheterisation, could or should Gillian have asked someone more experienced to be present? Or, next time she is told to do something, might she assess the patient for herself before preparing the instruments for a procedure? Apart from the normative valuation moment, the other steps in Dalmiya's scheme need not be carried out in rigid order; caring for caring accompanies all the steps to ensure that the process does not disintegrate into paternalism or martyrdom.

Having highlighted the cognitive aspects of the caring process, Dalmiya demonstrates how caring can be an epistemic virtue in two senses.^{31 39} The first sense arises out of caring practices themselves: caring well involves getting to know the care receiver through empathy, imagination, and listening to feedback; and, through the process of caring about caring and critical (self)-reflection, to getting to know oneself. She terms this care-knowledge (I) and casts it as a reliabilist epistemic virtue, which is a 'justified belief arising from the exercise of the (reliabilist) ability to care'. (Dalmiya³⁹, p.42) A reliabilist virtue is here understood as one of the virtues of mechanism, 'cognitive skills or processes such as good eyesight and memory that reliably lead to true beliefs'. (Dalmiya³¹, p.21) Although arguably more complex than good eyesight, Dalmiya suggests that the caring process can reliably lead to true beliefs about selves (others and oneself). Indeed, when epistemology is recast in light of the ability of relational agents to care about one another, then '*knowing people* [would be] the paradigm of knowledge rather than the knowing of middle-sized physical objects'. (Dalmiya³¹, p.13)

Second, caring can be cast as a responsibilist epistemic virtue in which agents are disposed to care. A responsibilist virtue is here understood as one of the virtues of character, including 'open-mindedness, creativity and courage that are not discrete processes of acquiring beliefs, but traits that regulate enquiry and the functioning of cognitive skills'. (Dalmiya³¹, p.21) Such caring agents can undertake any manner of inquiry, coming to know the world, its objects and states of affairs, via what Dalmiya calls care-knowledge (II). Moving beyond knowing people, 'the underlying motivation of caring—to make a particularised other important—maps onto the (intellectual) desire—to make cognitive contact with reality'. (Dalmiya³⁹, p.47) In this second sense, epistemic agents are praiseworthy for exhibiting a caring character in relation to their objects of knowledge. Importantly, just like the care ethical agent is compelled to care about caring, the care epistemic agent is compelled to care about knowing; caring

^{xvi}Hamington similarly argues that caring can be a form of inquiry, but his focus is on phenomenological approaches to embodied knowledge, discussion of which would take us too far afield.⁶²

^{xvii}There are of course similarities, but these steps should not be confused with the four overarching normative commitments that Collins teases out of the care ethics/theory literature as a whole.

^{xviii}Dalmiya is not suggesting that this reflection should happen in isolation; she is well aware that caregivers, and knowers more generally, are part of communities in which we rely on each other to help us understand our relationships.

agents will reflect on their and others' modes of knowledge acquisition. Thus, Dalmiya envisions caring as a hybrid ethico-epistemic virtue.

Can these two senses of care-knowing apply to nurses' knowledge and knowledge-making, similar to the ways in which care and virtue ethics provide frameworks for nurses' moral actions? First, it is safe to presume that (good) nurses are typically involved in the five-stage process of caring that Dalmiya maps out. They try to understand the needs of their patients by imagining what their patients are going through, by interacting and negotiating with them, by receiving feedback, and by drawing on their own professional experiences. Through this process nurses undoubtedly gain knowledge about their patients. If and when they reflect on their caring relationships with their patients, they exhibit the caring about caring pattern, which can lead to improved self-knowledge. It seems uncontroversial, therefore, to ascribe nurses care-knowing (I). Indeed, there is a push in the nursing literature to recognise that 'the practices involved in generating nursing knowledge ... pass through the special context of nursing practice—the actions and interactions of healing, caring relationships—to understand human-environment-health processes'. (Reed⁴¹, p.42) Thus, it is the caring practices themselves that can lead to increased knowledge and understanding, especially of people and relationships.

To understand how nursing care can contribute to a wider epistemic project, it is useful to turn to care-knowing (II). For Dalmiya it is the caring disposition in an epistemic agent, such as a nurse, that can make a 'particularised other' important; often this other is a patient, but it can also be more abstract parts of reality. For example, the underlying motivation of caring can lead nurses to learn a new skill or to brush up on the most recent ethical guidelines, and so on. Care-knowing (II) thus approaches the influence of caring on knowing from the other side compared to van Hooft's conception of caring. Recall that for van Hooft possessing 'nursing knowledge' constitutes part of the virtue of caring. For Dalmiya, caring—both as a process and as a disposition of the nurse—leads to her acquiring more knowledge; that is, *because* she cares, she strives to understand her patient and gather more information relevant to her profession. Although these two views seem to be in tension, these are two sides of the same coin. Caring and knowing can form a virtuous cycle: caring, and caring about caring in particular, can lead a nurse to seek out more knowledge; at the same time, acting from the virtue of care has to contain relevant knowledge. What Dalmiya's and van Hooft's accounts share is their explicit endorsement of reflection on caring practices and modes of knowledge acquisition. Nonetheless, their accounts differ in the emphasis they place on the location of the virtue. Van Hooft's account locates the virtue of care firmly within the virtuous nurse. Patients feature only as 'beneficiaries of the virtue', considerations of whom 'may seem redundant'. (van Hooft³⁸, p.198) Dalmiya's care ethics-inspired account, in contrast, emphasises caring relationships: care-knowing is not an isolated endeavour, but rather takes place in relation to particular others. Dalmiya's explicit attention to the relational aspects of care-knowing, we contend, are crucial to nursing practice, and so we now bring her account into conversation with EBN.

CARING AS THE MATRIX OF EBN

We began by asking what Melnyk and Fineout-Overholt meant by the 'context of caring' for the EBN process. Clearly, caring is an incredibly rich concept; discussion in this paper has been restricted to related accounts of care ethics and virtue ethics,

culminating in Dalmiya's characterisation of care as a hybrid ethico-epistemic virtue. Can these accounts help us answer some of the open questions regarding the EBN process identified earlier, namely, how to cultivate the spirit of inquiry, how to decide whether a particular clinical situation calls for a PICOT or PIOT question or something else, and how to integrate external evidence with internal evidence and patient preferences/values?

Taking these questions in order, it seems that construed as an ethico-epistemic virtue, the caring about caring step is one way to cultivate the spirit of inquiry. After all, following Dalmiya, if it is granted that nurses do care about, care for and take care of their patients, part of this caring process is to consider whether these caring relationships could be different or better. So, when EBN arrives at the scene and external empirical evidence is presented as being able to improve patients' health, we might think that nurses who care, in Dalmiya's sense, will be motivated to explore new options. In this context, Melnyk and Fineout-Overholt suggest that mentors who 'have in-depth knowledge and skills in EBP' (Melnyk and Fineout-Overholt¹⁵, p.17) are needed to contribute to an EBN-friendly environment. To supplement this notion of EBN mentors, we propose that what is also needed are 'care mentors', such as senior nurses who demonstrate care, prompting less experienced nurses to begin/expand their self-reflection, and act as exemplars displaying the hybrid ethico-epistemic virtue of care.^{xix}

Can caring help nurses decide which questions to ask during the EBN process? Recall that PICOT formulations are designed to answer intervention questions, whereas PIOT formulations provide information about an 'issue of interest'. As an example, Melnyk and Fineout-Overholt ask us to imagine the following scenario: 'If your mother were diagnosed with Alzheimer's disease, would you want her healthcare provider to give you information about how other family caregivers of patients with this disease have coped with the illness, based on evidence from well-designed studies?' (Melnyk and Fineout-Overholt¹⁵, p.8) The suggestion seems to be that a nurse caring for a patient with Alzheimer's should ask the following PIOT question: 'How do [family members] (P) with a loved one who has Alzheimer's disease (I) perceive their ability to provide care (O) during the course of the disease (T)?' (Melnyk and Fineout-Overholt¹⁵, p.59) Although some patients and their families will benefit from knowing the outcomes of systematic meta-analyses of qualitative studies interrogating how other families have coped with Alzheimer's, this seems to present a case in which the caring process, and listening for feedback during care reception, might point to a different route. There is no knowing in advance of the encounter with a particular patient what kind of care will be most useful or consoling to them and their family. Maybe neither a PICOT nor a PIOT question is appropriate. Maybe the nurse realises that this particular family gets together for a movie night once a month, in which case she might recommend a film, such as *Still Alice* (2014) or *Supernova* (2020), that presents a fictional account of how people cope, and struggle to cope, with cognitive decline and illness. Maybe the nurse involves a social worker to find out what kind of support groups are available. Having said this, asking the PIOT question and gathering

^{xix}This is perhaps what Vanlaere and Gastmans have in mind when suggesting that critical reflection is a key skill that junior nurses can learn from senior nurses acting as 'critical companions'.⁶³

external evidence can form part of a nurse's care-knowing (II) practice; starting from the disposition of care with respect to her patients and their experiences, the nurse is motivated to further her own understanding of Alzheimer's and its repercussions. She may benefit from learning—through systematic meta-analyses—about the range of responses that families exhibit when confronted with cognitive decline in their loved ones.

Although EBN advocates are at pains to emphasise that external evidence is not sufficient for good care, some practitioners are worried that EBN culture leads to 'cookbook nursing'. For example, Norlyk *et al* draw on their experiences in Danish hospitals with fast-track programmes for orthopaedic surgery recovery.⁴² Based on best available external evidence, nurses were encouraged to deliver a strict recovery programme in which patients need to hit certain nutrition goals and do all of the postoperative mobilisation unassisted. However, the authors compiled narrative data to demonstrate that 'this technification of care devalues the uniqueness of individual patients and potentially leads to a McDonaldisation of nursing practice'. (Norlyk *et al*⁴², p.6) They describe a nurse who sticks to the EBN protocol so stringently that she is 'almost commanding' her patient to get out of bed on their own despite their obvious pain, and providing a protein drink they 'had to drink' (Norlyk *et al*⁴², p.3) despite their nausea. We suggest that cultivating the hybrid ethico-epistemic virtue of care could help the nurse navigate the tension between the generalised, action-guiding evidence and individual patients' needs. Through care-knowing (I) the nurse gets to know her patient, understanding how resilient and how responsive they are to certain interventions or lack thereof, and whether they might mobilise better with some initial encouragement and help. But neither is the fast-track recovery protocol ignored; the hospital provides an EBN environment in which nurses are encouraged to seek out external evidence that can guide nursing practice (care-knowing (II)). This external evidence, however, is not accepted uncritically; there is room for push-back from nurses who recognise the varying needs of their individual patients and discuss them together.

We have shown how Dalmiya's conceptions of care-knowing could strengthen the EBN framework. Finally, external evidence could act as protection against the charge that caring can become all-consuming, such that nurses have to sacrifice themselves to provide a service. This is a particular worry in a climate in which patients are more often seen as clients directing their own care. Although this move protects patients from paternalism, it can lead to the exploitation of nurses. External EBN evidence may be able to mediate between these two poles: if there is robust external evidence that a particular intervention will not be helpful, then a nurse will be more able to draw on this evidence to resist the wishes of an overly demanding patient. Consider the patients recovering from orthopaedic surgery: if they were to become unreasonably demanding, these nurses could protect themselves and their labour from becoming exploited by highlighting to their patients that robust external evidence suggests their recovery will be better the more they can do for themselves. Thus, resources from feminist approaches to ethics and epistemology can strengthen the EBN framework and vice versa.

CONCLUSION

We have provided examples of how caring is enmeshed within the whole EBN process—from cultivating curiosity to mentoring—and helps ground it in concrete situations, thus guiding the EBN steps. In summary, care and caring should not be conceived of merely as background assumptions or as afterthoughts to

EBN. Good nurses do not just have a generalised caring attitude; rather this attitude is enmeshed with their actions and, importantly, it has significant epistemic aspects that can feed into the EBN process. At the same time, performing the EBN steps as outlined by Melnyk and Fineout-Overholt and adding on 'care' afterwards is insufficient because caring and care-knowing practices are essential to answering some of the questions left open by the EBN process.^{xx}

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^{xx}The worry that caring, in Dalmiya's sense, is being neglected in favour of external evidence also applies to EBM more broadly, but exploring how the ethico-epistemic virtue of care could address this worry will require its own investigation.

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