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Fundamental Patterns of Knowing in Nursing

The Challenge of Evidence-Based Practice

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This article reconsiders the fundamental patterns of knowing in nursing in light of the challenge of narrow empirics in the form of evidence-based practice. Objections to the dominance of evidence-based practice are reviewed, and the reasons for it are examined. It is argued that it is partially the result of weaknesses in the alternative patterns of ethical, personal, and esthetic knowing, the ineffability of which compromises accountability. This ineffability can be countered only by introducing a wider form of empirics than countenanced by evidence-based practice into all patterns of knowing, to demonstrate their salience and to make their use in practice transparent. **Key words:** *empirics*, *esthetics*, *ethics*, *evidence-based practice*, *nursing theory*, *patterns of knowing*, *personal knowing*

THIS ARTICLE addresses the legacy of a seminal article that helped launch *Advances in Nursing Science* so auspiciously, namely Barbara Carper's "Fundamental patterns of knowing in nursing."[1] Carper's article has been cited and discussed times almost innumerable, and her typology of nursing epistemology continues to stimulate and inform. However, the thrust of this article is that the development of evidence-based practice (EBP) and its influence upon nursing has exposed weaknesses in Carper's patterns of knowing that compromise the capacity of her framework to accommodate and counterbalance the very vigorous empirics that EBP entails.

Before embarking on an examination of the nature of EBP and its relationship to patterns of nursing knowledge, it is useful to recapitulate the 4 patterns, as described by Carper. The first, empirics, refers to the science of nursing, and is "empirical, factual, descriptive."[1(p15)] The second is esthetics, the art of nursing. This is the most difficult pattern of knowing to describe succinctly, as it includes a rather confusing list of attributes such as appreciation of patient experience, design of care, and the relationship of the particular to the universal. Personal knowledge "is concerned with the knowing, encountering and actualizing of the concrete, individual self."[1(p18)] In other words, it is the knowledge needed to engage in authentic personal relationships. Finally, ethics is concerned with the moral knowledge of nurses, specifically focusing on "matters of obligation or what ought to be done."[1(p20)]

THE DOMINANCE OF EMPIRICS

From the outset of its career in nursing discourse, the pattern of empirics has been identified as occupying an overweening position in relation to the other patterns of knowing. Starting with Carper, commentators have identified a continuing tendency to

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regard it not as one of a number of patterns of knowing, but as nursing knowledge in toto. Thus Carper observed:

> Few, if indeed any, familiar with the professional literature would deny that primary emphasis is placed on the development of the science of nursing. One is almost led to believe that the only valid and reliable knowledge is that which is empirical, factual, objectively descriptive and generalisable. There seems to be a self-conscious reluctance to extend the term *knowledge* to include those aspects of knowing in nursing that are not the result of empirical investigation.[1(p16)]

This critique of empirics has been repeated by commentators over the years. Thus, a decade after the publication of Carper's paper, Jacobs-Kramer and Chinn[2] argued that this hierarchical approach to the patterns of knowing was counterproductive and that what was needed was a holistic approach to nursing knowledge. A decade after that Stein et al[3] used insights of the cognitive model of human social behavior to argue that, because knowledge should be seen as an integrative framework, the significance of what they termed episodic and procedural knowledge, as manifested in esthetic and personal knowing, should be afforded equal importance and weight to empirics. Commentators in this century have continued this theme. Thus, Fawcett et al urged "nurse colleagues throughout the world to join us and those who have accurately pointed to the limitations of viewing nursing as a strictly empirical endeavor ... to consider what might be gained by recognition and development of ethical, personal, and aesthetic theories."[4(p118)]

THE CHANGING DEFINITION OF EMPIRICS

While critical reflections on what has been seen as the unjustifiably privileged position of empirics have remained fairly constant over the years, what has not remained constant is what commentators mean by the term *empirics*. Carper's view on this issue was clear—the gaining of empirical knowledge was not an end in itself, rather its ultimate aim was the development of abstracted theoretical explanations. The generation of general theories through the abstraction of empirical knowledge was required to enable the systematic explanation and prediction of those phenomena that were the concern of nursing.

Since Carper, there have been at least 3 distinct approaches to the relationship between empirical knowledge and theoretical knowledge. The first approach seeks to reinforce the significance of general theory to nursing knowledge and to expand its salience beyond the confines of empirics. Thus, Fawcett et al have sought to argue that theory building should not be associated exclusively with empirics. Because each pattern of knowing is generated and tested by appropriate, albeit pattern-specific, processes of inquiry, they contend that they can be regarded as types of theory.[4]

In contrast, there has also been an increasing skepticism from a relativist perspective of the role of general theory in nursing knowledge. Thus, White[5] argues that general theory development entails the ontological assumption of a single, commonly experienced reality that can be explained in abstract and general terms. She contends that if nursing knowledge includes the understanding of the "context-embedded stories"[5(p76)] of individuals, then this sort of universal framework is inappropriate. She urges that Carper's definition of empirics should be modified to accommodate more individualistic empirical strategies, such as phenomenology, to include approaches to knowledge that seek to ideographically understand rather than nomothetically explain. This emphasis on the importance of pluralism for nursing knowledge has been taken even further by postmodernist commentators, who have celebrated the variety of approaches that can be accommodated within the rubric of Carper's model.[6]

EMPIRICS AS EBP

Distinct from the approaches adumbrated above is a very powerful alternative that seeks to abjure both general and relativist theory. Instead, it involves adherence to a very clear and simple notion of the role of empirical information in the guidance of healthcare actions, one that conceives of a direct relationship between knowledge and action. I refer here to evidence-based practice, defined by its most influential proponents as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients."[7(p71)] The core of EBP is the utilization of information concerning the most effective approaches to care that has been established using the most rigorous methods available, ideally the randomized controlled trial (RCT).[8] The modus operandi of EBP is to ascertain the facts concerning the efficacy of a healthcare intervention under rigorously controlled conditions, which ensure that the effects (or lack thereof) of the intervention under observation can be unequivocally demonstrated. If it is demonstrated that the intervention is efficacious in solving or ameliorating a given healthcare problem under such strict conditions, then it is argued that it should be the intervention of choice when that healthcare problem is encountered by practitioners in their everyday practice.

The simplicity of the logic of EBP challenges both general and relativist theoretical approaches. On the one hand, complex general theories that seek to incorporate factors that lie in the realms of the esthetic or the personal are of little pertinence to this model of explanation, in that it is primarily concerned with that which can be demonstrated to work best in average circumstances. As for ethics, it can be parsed into the formula "effective = good, good = effective." On the other hand, relying as it does on the reliability and validity of its methodological foundations, EBP has little time for relativist theories that argue that the differences between individuals and their contexts make it is impossible to decide before the fact which interventions will be most effective in promoting health. While accepting the need to treat the individual as an individual, for EBP the fundamental causative relationships identified through rigorous research should be the bedrock of clinical decision making in circumstances where similar conditions apply.

CRITIQUES OF EVIDENCE-BASED PRACTICE

It is hard to overestimate the power of EBP. Starting out in the guise of evidence-based medicine, it has spread to other professional groupings to become one of the most significant developments in healthcare in the last 2 decades.[9] It has particular ramifications for nursing in that it involves an extremely narrow concentration on empirics. Its reduction of healthcare knowledge to the "bald empiricism"[10] of identifiable linear relationships of cause and effect has caused many nursing scholars considerable disquiet. The reason for this disquiet is not difficult to ascertain, given the long-standing suspicion of the dominant position of empirics. With EBP, not only does empirics enjoy a total hegemony, either displacing (as in the case of esthetics and personal knowledge) or incorporating (as in the case of ethics) alternative modes of knowing, it is also itself reduced to a very circumscribed and mechanistic interpretation of empirical knowledge. It is hardly surprising therefore that robust criticisms of EBP have emanated from both the general theoretical and relativist camps.

From supporters of the importance of general theory, one of the most vigorous critiques of the application of EBP has been articulated by Mitchell,[11] who argues that the tenets of EBP are often inimical to those of nursing theory. She contends that nursing has evolved as a theory-driven occupation. The introduction of EBP threatens to sever the linkages between the theories that have been developed to ensure that nurses discharge their societal mandate, and the practices that they perform in their everyday care. Worse, it has the

potential to introduce practices that contradict fundamental tenets of the nursing ethos. She cites the example of behavior modification therapy, the efficaciousness of which has been evidentially demonstrated, but the ethos of which transgresses the nursing commitment to a respectful relationship with clients that does not include punishment for noncompliance.

Mitchell's acerbic response to the increasing influence of EBP is shared by a number of prominent nursing theorists, who have unambiguously identified what they see as its significant dangers:

> The current call for evidence-based nursing practice has set the debate in a conventional, atheoretical, medically dominated, empirical model of evidence, which threatens the foundation of nursing's disciplinary perspective on theory-guided practice.[4(p115)]

If we remember how Fawcett et al's argument extended the salience of theory beyond its mutually constitutive relationship with empirical enquiry to encompass all 4 patterns of knowing, we can see the problem that they have with EBP. First, they regard it as yet another example of the unjustified dominance of empirics over other patterns of knowing. Second, they see this dominance being overdetermined by the narrow atheoretical interpretation of empirics that defines EBP. In other words, EBP fails to pay even lip service to either the other patterns of knowing or the organizing function of theory.

The attack from the relativist position has been no less vociferous, most notably from postmodernist commentators.[9] While the watchword here is not theory but plurality, the critique is very similar. Once again, Carper's typology is cited in the argument against EBP, and once again the prime focus of disquiet is EBP's reduction of the variety of patterns involved in Carper's typology down to the single validated epistemology of bald empirics: "It is deeply questionable whether EBM [evidence-based medicine], as a reflection of stratification . . . and segmentation, promotes the multiple ways of knowing deemed important within nursing."[12(p45)]

The identification of EBP by general and postmodernist theorists as the common enemy should not be taken to imply a consonance of purpose between the 2 groups. For postmodernists, healthcare occurs "within the parameters in the moment and place."[13] As a consequence, they regard Carper's patterns of knowing as routes to localized solutions. They are as suspicious of general theoretical claims as they are of bald empiricism, regarding the former as "totalizing discourses"[14] which, in their imposition of uniform explanations for unique situations, do violence to the specificities of the particular. It is therefore a remarkable testament to the appeal of Carper's model that both general theorists and postmodernists can incorporate it with such ease into their radically different worldviews.

EXPLAINING THE DOMINANCE OF EMPIRICS

All of criticism of EBP recounted thus far begs the question as to why it enjoys such dominance in relation to the other patterns of knowing. The most common explanation for this state of affairs lays the blame for it on our medical colleagues. I have already noted Fawcett et al's[4] description of the call for evidence-based nursing practice as being part of a medically dominated debate. In a similar vein, Mitchell[11] talks of EBP as entrapping nurses in the role of medical extenders. From a postmodernist perspective, Holmes et al[12] are even more explicit in their identification of EBP as an example of the colonization of the nursing domain by medical imperialism.

While there is undoubtedly merit to examining the influence of the medical profession in explanations of the rise of EBP within nursing, it is important not to take such an explanation as the whole story. For a start, there is some evidence that nurses are using EBP to tilt the balance of power between them and physicians in their favor. Manias and Street[15]

found that medical reliance on the authority of experience is now vulnerable to nursing challenges that are backed up by evidence-based policies and protocols.

More significantly, there is a need to place the rise of EBP in a wider socio-economic context. At least 2 major trends are at play here. The first is economic and consists largely of the fiscal pressures upon governments and other funders to increase health service efficiencies.[16] The second is cultural and involves the transformation of healthcare clients into informed consumers who are less willing to accept the opinions of healthcare professionals on faith.[17] Thus, Traynor[18] has commented that if the claims of EBP advocates are to be believed, then by challenging the closed shop of medical expertise through the use of systematically gathered and transparently promulgated evidence, evidence-based medicine represents a significant challenge to established medical authority.

Nursing has not been immune to either of these trends. However, while not underestimating the salience of economic forces, I wish to concentrate on the latter, cultural trend, because it is in this arena that nursing has been uniquely challenged. What I wish to suggest is that the manner in which nursing presents its knowledge claims has exacerbated its vulnerability to changing cultural expectations. To be specific, the increasing public distrust of the professional expert[19] is an important factor in explaining why empirics has been so successful to the cost of other patterns of knowing. An explanation of this thesis requires a return to Carper's original paper and the manner in which she formulated the patterns of knowing; specifically the way she distinguished them in terms of public accountability. What is striking is the fact that while empirics is amenable to open processes of refutation and verification, the other patterns are not. She states that "knowledge gained by empirical description is discursively formulated and publicly verifiable."[1(p16)] In contrast, esthetic experience "resists projection into the discursive form of language,"[1(p16)] while the reciprocity required for personal knowing "cannot be described."[1(p20)] Even the value judgments involved in ethical knowing are "not amenable to scientific inquiry and validation."[1(p20)]

I wish to argue that the ineffability of esthetic, personal, and, to a degree, ethical patterns of knowing may at least in part explain their eclipse by empirics in the form of EBP. The simple reason for this is that if they cannot be tested or even described, then it is very difficult to ascertain how, or even if, they are being used. Much of the ideological power of EBP comes from its claim to be able to provide open and transparent evidence to which everyone, including healthcare clients, can have access. This openness of the evidence is portrayed in turn as an example of the democratization of the clinician-client relationship in that it is not based on the esoteric knowledge of the professional to which the client has little or no access, and which therefore limits the layperson's ability to challenge professional decisions about their care.

In contrast, it is very difficult for apologists for patterns of knowing that are claimed not to be amenable to discourse, and therefore public scrutiny, to adopt the same high moral ground. While we may rightly inform clients that empathy and authenticity are core aspects of nursing knowledge, that in itself is not good enough. Gone are the days when professionals could simply make claims about the benign attributes they possessed and expect the laity to accept those claims on face value. As part of the empowerment of our clientele and the attenuation of old-fashioned paternalistic relationships, there is a need to demonstrate the quality of nursing care, not simply to proclaim it. If a particular quality or pattern of knowing cannot be clearly demonstrated, then it is unsurprising that it holds less weight than those patterns of knowing that can be demonstrated. Insofar as ethical, esthetic, and personal knowing are not amenable to discursive challenge by nursing clientele, their influence as modes of nursing knowledge will be compromised.

EVIDENCE OF PATTERNS OF KNOWING

The dilemma of how to make manifest ways of knowing that deal with "soft" phenomena is one with which nursing theorists have grappled, most notably in attempts to define and measure caring. These attempts are essentially exercises in empirical enquiry, and as such are inevitably reductive in their simplification of the profound and the complex. Put another way, the price of making caring measurable is to bring it within the domain of empirics. Advocates of the assessment of caring, while aware of the dangers of such an approach, are confident of its usefulness: "empirical evidence of caring, captured in an elusive practice world that is unstable, unseen, chaotic, and changing, can be a tangible grasp and glimpse of nursing's contribution to both science, and public health and welfare."[20(p6)] However, while demonstrably robust instruments to measure caring such as that of CARE-Q[21] and CARE/SAT[22] have been successfully used within the limitations described above, attempts at adopting the same sort of approaches specifically in relation to Carper's patterns of knowing have been less successful.

The theoretically oriented approach of Fawcett et al[4] to patterns of knowing led them to map out examples of evidence for each of the patterns. From their pioneering efforts, we can see clearly the problems that such mapping entails. Unsurprisingly, identifying an example of evidence of empirics was unproblematic; it consisted of scientific data. The examples of evidence in relation to ethics were also clear, in that they included standards of practice and codes of ethics. However, when it came to personal knowledge and esthetics, the examples given were far less persuasive. For personal knowing, the example of evidence was autobiographical stories, while the examples for esthetics were esthetic criticism and works of art.

A PHILISTINE CRITIQUE OF ESTHETICS

To deal with the last of these patterns first, Fawcett et al's[4] identification of esthetic criticism of the art of nursing as an example of evidence is problematic because esthetic criticism is not in itself evidence; it is a mode of interrogation that may or may not result in evidence. Fawcett et al do not make clear just what would be the product of that criticism. Even more problematic is their assertion that evidence for esthetic theories is manifest "through works of art, such as paintings, drawings, sculpture, poetry, fiction and nonfiction, dance and others."[4(p118)] While works of art may help nurses understand more deeply and immediately the experiences of those for whom they care, they are tools for education and enlightenment, not evidence that their insights have been operationalized in nurses' interactions with clients. Moreover, the connection between the capacity to paint, sculpt, or dance and the capacity to act empathetically toward patients in day-to-day nursing encounters is tenuous. The ability to perform these activities does not guarantee the ability to nurse well. More reassuringly, the inability to perform these activities does not necessarily indicate an inability to nurse.

To be fair to Fawcett et al,[4] the task of identifying clear evidential examples of a concept as nebulous as esthetic knowing is almost impossible. The problem is that Carper did not express clearly what she meant by esthetics. Moreover, she further obfuscated the issue by asserting that esthetics could not be adequately expressed in language, beginning her discussion about it by citing Weitz's[23] contention that it is too complex and fluid to be definable.

In general terms, Carper describes esthetics as expressive rather than descriptive, directly relating to experience, and therefore wider and more immediate than discourse. Particular aspects of esthetic knowing are, in order of appearance, the ability to:

1. understand the meanings that are being expressed in patients' behavior;
2. synthesize apparently disparate particulars into a meaningful whole;
3. unify means and ends;

4. creatively design and execute plans of care;
5. integrate individual nursing actions into the package of total patient care;
6. empathize with patients; and
7. appreciate that the whole package of care is the result of a dynamic articulation of mutually dependent factors.

Carper also ambiguously refers to the artfulness of manual and technical skills. She concludes this list by stating that esthetic knowing concerns the perception of particulars rather than universals.

It is possible to boil this list down into a number of main themes: the appreciation of and empathy for patients' experience (1 and 6); the aggregation of the particulars of nursing into a meaningful whole (2, 5, and 7); and the capacity to design that holistic care creatively (3 and 4). However, even reduced to 3 headings, it is still not clear why all these functions, which are at best only partially articulated, should be located under the common umbrella of esthetics. Nor is it just a matter of definitional diversity, there is also an implicit contradiction between the claim that esthetics involves the active gathering of particulars into a whole, and Carper's final assertion that esthetics is all about particulars not universals.

The problem of pinning down esthetics is one that has exercised subsequent commentators. Both Jacobs-Kramer and Chinn[2] and White,[5] while concurring about the ineffability of the "art-act" of nursing, developed suggestions as to how it could be assessed subsequently, namely through the lens of art appreciation, the core question to be addressed of the nursing art-act being 'What does this mean?' This is indubitably an extremely important question, the asking of which is the mark of intelligent, humanistic practice. But is it necessarily or even primarily an esthetic question? I wish to suggest that it is not.

Whether we are concerned with understanding the meaning of nursing acts or patients' behaviors, we already have to hand conventional qualitative research strategies that are specifically designed to address such questions. One might recall White's criticism of Carper's notion of empirics on the grounds that it did not include research within the interpretive paradigm such as phenomenology that sought "descriptions that impart understanding,"[5(p75)] to which we might add "that impart understanding of the meanings that health, illness and care have for individual patients and nurses." In short, the question "what does this mean?" is a hermeneutic, not an esthetic question. It follows that the pattern of knowing designed to answer it should likewise be animated by hermeneutic, or more generally, qualitative strategies—empirics by another route.

The conclusion that the gathering of empirical qualitative data is required to gain an understanding of the meanings that people have of health, illness, and care does not sit comfortably with the tenets of EBP, which has traditionally privileged quantitative research, and specifically the RCT, as the superior method of knowledge acquisition.[24] However, nursing researchers have taken the lead in widening the definition of evidence to include qualitative research through, for example, the development of the Joanna Briggs Institute.[25] The success of these efforts to force a reappraisal of the sort of evidence upon which practice should be based reached an important landmark when that paragon of EBP, the Cochrane Collaboration, finally included a chapter on qualitative research in the its 2008 handbook.[26] But we should not get too excited. Notwithstanding this significant breach of the ramparts, the Cochrane dogma still holds the RCT as its exemplary method.[27]

Insofar as promoters of EBP expect us to acquiesce to assertions about the superiority of specific strategies for knowledge attainment, they are asking us to take an approach that is inimical to the concerns of nurses. Rather than fetishizing a particular approach, we need to ask which strategies will best help us understand the particular issues we are addressing, in this case, the

hopes, fears, and understandings of those in our care. Empirical knowledge can take many forms and our decision on which form to adopt for any given problem is a pragmatic one.[28] Of course, when one is seeking to discover the functional efficaciousness of a particular intervention, then there are good pragmatic reasons for adopting the strategy of RCTs. However, when asking the question "what does this mean?" the argument for using qualitative strategies is overwhelming, for as Bhaskar observes, "meanings cannot be measured, only understood."[29(p50)] Thus, the adoption of a qualitative empirical approach to demonstrating those areas of nursing knowledge under the rubric of esthetics provides us with a robust counterweight to the quantitative (and therefore deindividuating) impetus of EBP, while staying true to the ethos of understanding meaning that is at the core of Jacobs-Kramer and Chinn's[2] and White's[5] interpretation of this pattern of knowing.

That said, as we saw from Carper's extended list, there is a lot more to the esthetic pattern of knowing than hermeneutics. For example, I fully accept that the arts have much to teach us in developing our sensibilities. To say otherwise would be hypocritical in the extreme, given that I have recently published a paper that uses a 16th-century painting to reflect upon contemporary sexual health promotion.[30] More ironic still, the whole debate presented here was sparked off by my stumbling across an early 15th-century painting of an EBP midwife being punished by God![31] However, even in instances where nursing practice is based on authentically esthetic knowing, this does not obviate the requirement for clear evidence of its benefit to patients. And that requires, in turn, empirical investigation.

THE UNBEARABLE LIGHTNESS OF BEING

Objections similar to those made of esthetic knowing are also pertinent to the pattern of personal knowing. Once again, we are faced with the problem of the ineffability of the core concept. As Carper puts it, "One simply does not know *about* the self; one strives simply to *know* the self."[1(p18)] This ineffability is again reflected in the unsatisfactory evidential example given by Fawcett et al, namely "autobiographical stories about the genuine, authentic self."[4(p118)] The problem with this form of "evidence" is its vulnerability to solipsism. While such an autobiographical tale may tell us how the nurse (assuming the author is a nurse) feels herself to have engaged in a genuine and authentic manner, the evidence remains that of the nurse's perspective, a perspective that may or may not be shared by those with whom she interacted.[32] In other words, it is not satisfactory evidence as to whether or not a healthcare encounter has been animated by personal authenticity.

At the risk of being accused of superficiality, I wish to suggest that the way to get around the problem of the will-o'-the-wisp nature of the "genuine" self is once again to approach the problem empirically rather than existentially. Rather than attempting to demonstrate indefinable essences, we should be addressing very definable actions. To use the biblical injunction, by their deeds shall ye know them, and those deeds can be observed and assessed.

This brings us back around to the measurements of caring such as CARE-Q[21] and CARE/SAT,[22] the function of which is to ascertain whether or not healthcare clients believe they have been treated by nurses in a respectful and caring manner. While they may seem prosaic in comparison to the profundities of the self, questions concerning whether clients felt their nurses were prepared to talk to them about their treatment, or whether they responded quickly when called, provide us with clear evidence concerning the authenticity and humaneness of nurse-client interrelations. That clarity, in turn, provides a counterbalance to the data generated by the empirical procedures of EBP, with its exclusive concentration on effectiveness.

THE FOCUS OF ETHICS

To turn to the last of the patterns of knowing, what I wish to suggest is that Carper's construction of ethics is pitched at such an abstract and nonprescriptive level that it is of limited use in dealing with the issues raised by evidence-based practice. Carper observes that there are no cookbook answers to the manifold, contextually generated moral questions faced by nurses (which implicitly undermines the role of standards of practice as definitive guides). She argues consequently that they will be best prepared to make the moral choices required of them if they have an understanding of ethical codes and of philosophical positions that address what is meant by the good, and what is entailed in the judgment of what is moral. However, she makes no recommendation as to which philosophical positions nurses should concentrate on. The problem with such a liberal position is that it leaves nurses adrift on the stormy seas of moral philosophy, which displays little or no consensus on how to approach its core concept.

The lack of prescription in Carper's description of nurses' ethical knowing does not reflect the fact that nursing knowledge entails very specific ethical assumptions, assumptions that some argue have been violated by what they see as the very mechanistic approach to decision making involved in EBP. The moral objection to EBP has been clearly articulated by Mitchell:

> The very term *evidence* flows from certain assumptions that are not consistent with nursing practices that honor situated freedom, human uniqueness, and client as leader. Nursing's responsibility should be first and foremost to develop and sustain knowledge that honors the client's meanings, realities, possibilities, wishes and choices.[11(p34)]

While the importance that Mitchell puts upon the uniqueness of the individuals for which nurses care is well-taken, her extrapolation from this that the use of objective evidence is not consistent with the nursing ethic involves a false dichotomy. Most clients' choice is to be cared for by a well-informed practitioner.[33] They want us to be in command of objective evidence because they believe that this will equip us best to help them. This does not negate the client's freedom to choose their modes of care. Deber has identified 2 stages to the process of participative care decisions. The first she terms "problem solving" that "requires that the problem solver have a set of skills and a knowledge base that enable him or her to identify the alternatives and the probability of each outcome."[34(p426)] Clients may or may not have these skills, but practitioners are required to have them. However, knowledge of alternatives does not dictate which actions should be taken. This is decided in the second stage, "decision making," which is the point where clients' wishes and choices come into play in the form of mutually participative discussion. This suggests that we need to conceive of nursing ethics as a combination of the ethics of justice[35] in relation to problem solving and the ethics of care[36] in relation to decision making.

However, identifying the sort of ethics which is appropriate for nurses to adopt is only one stage of the problem. It is also essential that nurses demonstrate through their actions that they adhere to those ethical tenets in practice. We are back to empirics. While the danger of doing violence to the complexities of ethical issues by reducing them to empirical questions is one that should not be underestimated, this does not relieve nurses of the responsibility to make their ethical approaches transparent. Nor is it beyond our ken to develop sensitive and occupation-appropriate tools to enable this. Work by Dierckx de Casterlé et al, for example, has demonstrated the possibility of both combining Kohlberg's ethics of justice with Gilligan's ethics of care[37] and applying the adapted framework empirically to nurses' ethical behavior in practice using both qualitative and quantitative techniques.[38] While we might observe that the model of Dierckx de Casterlé et al is a little too reliant on Kohlberg,[35] and not reliant enough on Gilligan,[36] there is no reason why future theoretical developments

could not rectify this imbalance. Indeed, if my arguments are accepted, it is almost an imperative to do so.

To return to the problem of Carper's pattern of ethical knowing, we can draw a number of conclusions from our discussion. First, facing the moral challenge of EBP teaches us that it is not sufficient simply to argue that nurses should be familiar with moral philosophy in the round. Rather, there is a need to focus on and utilize those approaches to moral philosophy that are congruous with the specific ethical concerns of nurses, namely those that help us honor "client's meanings, realities, possibilities, wishes and choices."[11(p34)] Second, there is no necessary contradiction between the use of empirical evidence and the requirement to honor clients' choice. Third, there is a need to make nurses' ethical decisions transparent through empirical interrogation.

CONCLUSION

The main thrust of this article has been to identify the limitations of Carper's patterns of knowing in nursing that have been exposed by the challenge of evidence-based practice. While critical in nature, I hope it has followed the spirit of Carper's original thesis, which concluded with the following words:

> Every solution to an existing problem raises new and unsolved questions. These new and as yet unsolved problems require, at times, new methods of enquiry and different conceptual structures; they change the shape and patterns of knowing.[1(p22)]

It has been my contention that the "new problem" of EBP requires nurses to change the shape and patterns of knowing to respond to the challenge it represents. The challenge involves its threat to reduce nursing knowledge to a very narrow form of empirics. The power of the challenge lies in the consonance of EBP with prevailing economic, social and cultural trends. In terms of culture, EBP's claim to provide transparent evidence that is open to all, chimes well with the public's increasing distrust of esoteric professional expertise. In contrast, claims that esthetic, ethical and personal knowing are, to greater or lesser degrees, unamenable to scrutiny, means that they fall foul of public expectations for transparent and accountable healthcare. This is an increasingly untenable position for nursing to adopt.

My response to this problem has been to advocate the insertion of empirics into the three other patterns of knowing. In relation to esthetics, I have argued that, to the extent that "what does this mean?" is the key question for this pattern, qualitative research techniques have a major role to play in uncovering the meanings held by nurses and clients. As far as personal knowing is concerned, it is my contention that attempts to make the "genuine self" transparent are doomed to failure. Rather than trying to do so, it is more fruitful to concentrate on how the authenticity of nurses is manifest in practice. Apropos ethics, once again, I argue that this can best be assessed by examining the actions nurses take as a consequence of their ethical decisions.

At this point I should make it clear what I am not saying. I am not claiming that ethical, personal, and esthetic knowing should be replaced by empirics, or even that they should be reparsed into the language of empirics. Still less do I advocate foisting EBP upon them. With the exception of esthetics, where I have argued that some of what has previously gone under its rubric lies better within the domain of qualitative empirical knowledge, this has not been about attempting to reduce or undermine nonempirical patterns. The very important contribution to nursing knowledge these patterns can make, using their own logic and procedures, is accepted. But empirics are needed to show clearly what that contribution is, and where it is missing.

Rather than advocating evidence-based practice, my argument might be described as promoting practice-based evidence. By this I mean that while nonempirical patterns of knowing animate practice, the fact that they do can be established only by empirical

means. The role of empirics, then, is demonstrative rather than determinative.

The whole argument here has been cast in rather negative tones, portraying the need to demonstrate empirically the effects of nonempirical patterns of knowing as arising from the challenge of EBP empiricism. But it can be cast in a far more favorable light.

If we aspire to mutually respectful, egalitarian relationships with our clients, then part of that contract involves a requirement for us to be transparent in our dealings with them. The overarching role of demonstrative empirics is to provide such transparency. The accountability that it entails can help us improve the quality of our care, and that in the end is what it is all about.

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