

Full Title: **Nursing knowledge: Its nature and generation.**

Short title: **Nursing knowledge**

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## Nursing knowledge: Its nature and generation.

### Key points

1. Nurses need knowledge because nursing is a practical discipline.
2. Explaining events by deriving them from laws of nature and understanding them rationally are distinct. Nurses need to know both.
3. Knowledge of facts and of values depends on distinct approaches and forms of justification. On some views, value judgements are merely subjective on other views uncodifiable.
4. There is reason to think that explicit knowledge depends on a bedrock of tacit knowledge.
5. Nursing practice draws on a potentially unlimited set of other disciplines to inform patient care. This places a heavy burden on knowledge-based practice.
6. The co-production of knowledge suggests a more equal role for patients and service users, a richer source of knowledge but also some challenges.
7. Because clinical judgement has to select from a body of knowledge to match a particular patient's needs, nursing is an art as well as a science.

### Introduction

What kind of knowledge underpins good nursing practice? Is it a unified field? And if not, what are the appropriate methods for arriving at new knowledge? In this chapter, we will consider three important distinctions which divide up forms of knowledge and argue that, in each case, nursing knowledge is found on both sides. Nurses must be able to *understand* their patients / service users as well as *explain* the course of their illnesses. They must know about facts and about values. And they must have tacit knowledge as well as explicit knowledge of their profession.

This suggests that nursing knowledge is not a single unified field but rather draws on a range of different disciplines. Given the requirements on the nature of knowledge itself, this suggests that a range of quite different approaches are necessary to generate new knowledge. The challenges are increased especially in mental healthcare by the aim of co-producing knowledge with patients or service users. Finally, we will suggest that this places the skill of identifying the right pieces of knowledge appropriate for each particular patient or service user at the heart of nursing. Although underpinned by scientific knowledge, this ability to judge what is relevant can helpfully be interpreted as an art.

This chapter concerns some deep philosophical questions about the kind of knowledge nurses need to have. Our contention is that knowledge of a variety of different kinds lies at the heart of good nursing care. Dealing with this is *the key* – practical and philosophical – challenge of modern nursing.

### The value of knowledge

**Reflection point:** *Why should nurses aim to have knowledge of their subject? What is the value of knowledge? Think about this question before reading on. One clue might be to think about possible opposites to knowledge. If nursing practices were not based on knowledge, on what might they be based? Write down some ideas.*

Answering the question of the value of knowledge is difficult. We will approach it via a preliminary question: what is knowledge or what does 'knowledge' mean? Now there might *not* be a very helpful or informative answer to this question. There may not be a very helpful definition available. But some general features of knowledge can, however, be learnt from particular examples. Suppose that Staff Nurse Robin knows that, because it is 5pm, Service User/Patient Terry is due for medication. If so, Robin must hold, or take it to be, true that it is time for his medication. That is, she must at least *believe* it. ('At least' because we often use the word 'believe' when we are *not* sure we do *know* something. "Do you *know* that?" "Well I *believe* it.") Second, if Robin does know that Terry

is due for medication, then Terry must *really* be due for medication. *If* Robin has knowledge, what she believes *must* be true.

Third, Robin's belief cannot merely be accidentally true. Neither a reckless guess nor an ungrounded hunch can support knowledge even if they turn out to be true. They might, too easily, not have been true. But knowledge can be undermined even when one does one's best. Suppose Robin believes that it is time for Terry's medication because she knows that he takes medication every day at 5pm and she believes, by looking at the ward clock, that it is now 5pm. But suppose that the normally reliable ward clock which has, in fact, stopped the day before. By lucky chance, however, it is now nearly 5pm. If so, although Robin has a true belief that it is time for Terry's medication she does not *know* it. If she had looked at the clock an hour earlier she would have formed the *false* belief that it was 5pm and so time for his medication.

These constraints on knowledge have motivated a definition which dates back 2,000 years to the Greek philosopher Plato: knowledge is *justified, true belief*.

The idea is that needing a justification for a belief (for it to count as knowledge) should rule out merely lucky true beliefs. But this prompts a question: in the example of Robin and the stopped ward clock, does that work?

**Reflection point:** *Think about this question for a moment. Does the traditional analysis give the correct account of Robin? Here is a clue: ask whether Robin has a justification for thinking the time is 5pm and also ask whether her true belief is lucky. If the answer to both is 'yes' then the traditional account does not address the problem of luck. If it does not, could some modification could be made to the definition?*

We will return to this question shortly.

As well as trying to rule out merely lucky true beliefs, justification also plays a second role which is helpful for thinking about the challenge of generating nursing knowledge. It provides a way, or a method, or a route, to aim at true beliefs. It is one thing to worry that one's beliefs about the latest medication for mental illness may not be right, but quite another to work out *how* to avoid being wrong.

Suppose a hospital authority issued an instruction that *all nursing staff should replace any false beliefs they hold with true beliefs*. On the face of it, this seems a good aim. But would the instruction help? The problem is that 'from the inside' true beliefs and false beliefs seem the same. To hold a belief is to hold it to be true. To believe that something is not true is precisely not to believe it. Thus beliefs which are, in fact, false are not transparently so to someone who holds them. So the instruction is not helpful.

By contrast, the following instruction would help: *replace any beliefs that one holds without justification with beliefs that do have justifications or grounds*. One can tell whether one believes something for a reason, or with a justification. And further, by aiming at having only justified beliefs, one should in general succeed in reaching true beliefs since justification is, in general, conducive to truth. Any 'justification' which did not increase the chances of a belief being true would not be a justification for it after all. This approach lies at the heart of Evidence Based Medicine but applies more broadly.

Although justification can play this second, helpful role of providing a concrete way of aiming at true beliefs it is not so successful in the first role mentioned above: ruling out being merely true by luck. As the example of Robin and the stopped clock illustrates, Robin *does* have a justification for believing that it is 5pm: she can point to the clock. Nevertheless, her belief is only true by luck because, as the narrator of the film *Withnail and I* says: even a stopped clock gives the right time twice a day. So she has a justification for a belief and the belief is true but no one would say that she *knows* the time.

Although the definition that knowledge is justified true belief dominated philosophy for 2,000 years since Plato, the problem that one might have a justified, true belief but still not have knowledge was first pointed out in the 1960s by the philosopher Edmund Gettier using an example like this one [Gettier 1963]. What follows?

It may seem that, as a definition of knowledge, 'justified, true belief' must fail (because Robin has justified, true belief but she does not have knowledge, she is merely lucky). But a better response is to argue that what the example really shows is that Robin does not really have a *proper* justification, a good enough justification for knowledge. Knowledge can still be correctly understood as justified, true belief but not everything that one might think of as a justification (in the example, looking at the ward clock) really is a justification (because the clock has stopped). Knowledge and justification are a pair of concepts that one learns at the same time. The definition highlights the essential connection between them. The route to knowledge to underpin nursing practice will be, as suggested above, through suitable justification.

We will end this section by returning to the question we first raised. Why should nurses aim to have *knowledge* of their subject? What is the *value* of knowledge? Part of the answer is this. Because knowledge, unlike say mere rumour or public opinion on which nursing might otherwise be based, is by definition true, aiming at knowledge is aiming at truth.

Now it may seem obvious that in a purely theoretical or contemplative discipline one should aim at truth for its own sake. Cosmologists, for example, want to understand how the universe works just for the sake of understanding it. But there is a further reason for nurses to aim at truth. This is because nursing is a *practical* discipline. It aims not just to understand health and illness but to make a difference, to change people's states of illness to health. And in general, actions – eg. medical interventions – based on true beliefs are more likely to succeed than those based on false ones. So nurses should aim at having true beliefs in order that their practical interventions in the lives of their patients are more likely to be successful. But because there are no intrinsic signs or symptoms of true beliefs that mark them out from false beliefs, the route to this is via a suitable justification which forms part of the conceptually rich idea of knowledge.

In this section, we have raised a fundamental question: why should nurses aim at knowledge. By 'unpacking' the concept of knowledge we have suggested answers which connect to the value of truth, the role of justification as a way of aiming at truth and the practical ambitions of nursing to intervene in patients' lives.

But although we have talked about nursing knowledge, there are reasons to think that the diversity of forms of knowledge that nurses need to know makes the phrase 'nursing knowledge' misleading. Towards the end of the chapter we will provocatively suggest that there is no such thing as 'nursing knowledge' and also that nursing is as much an art as a science. But in the next three sections, we will discuss some broad divisions of kinds of knowledge and suggest that nursing straddles each divide. Hence in each case, the generation of new knowledge to underpin practice has to draw on distinct methods and approaches which adds to the challenge of being a modern nurse.

### **Explanation and understanding**

In the first section we asked what knowledge was and considered the definition: 'justified, true belief'. The question, and the discussion which followed, may suggest that knowledge is a single unified sort of state. In fact, however, what is called 'knowledge' can be subdivided. Now one way to divide up knowledge would be to divide it very finely by subject matter.

For example, knowledge of human physiology subdivides into knowledge of the skeletal system, the muscular system, the immune system, the renal system etc. And knowledge of the skeletal system divides between itself subdivides into the ribs, vertebrae, cranium etc. But whilst the facts concerning the skeletal system differ from those of muscular system, there is no reason to think that

the *form* of knowledge differs in these cases. *What* one knows differs but the *nature* of knowledge itself does not.

Some divisions, however, do seem to concern not just *what* is known – the facts – but the *way* it is known. Consider these two examples of patient history.

Mr Smith is a 65 year old man who visits his GP because recently he needs to pass urine more frequently but is having difficulty. His GP gains permission to perform a digital rectal examination of Mr Smith's prostate. He also requests an oncology appointment for a prostate-specific antigen test whose levels are raised if there are cancerous cells in the prostate, as well as to run an ultrasound in order to determine its size. From these diagnostic tests, the stage and grade of any cancer in Mr Smith's prostate can be determined, and the progress of the disease monitored and treatment adjusted accordingly.

Miss Singh is a 23 year old who has been referred to a community mental health team by her GP because she has recently had very strong feelings and ideas to end her life. A nurse gains permission to ask Miss Singh some questions and hears that Miss Singh has been finding it hard to fall asleep, that she struggles to get out of bed and her appetite has dropped considerably in the past few months. She cannot plan for or see any happiness in her future. The nurse thinks that these could be some symptoms of depression and asks about Miss Singh's past. Miss Singh tells the nurse that her mother passed away a few years and this event left her depressed. After some further questions the nurse discovers that it is approaching the date of Miss Singh's mother's death.

**Reflection point:** *what are the typical indicators that one is on the right track to have grasped the biological course of a disease? And what for the development of a patient or service user's attitude to their diagnosis? Are they the same?*

In both cases, GPs and nurses aim at knowledge: a truthful account backed up by reasons. In one case, the justification flows from a process of looking at medical records and diagnostic tests and in the other of asking questions and having a conversation. Despite sharing the aim of knowledge, these two accounts appear to have different structures. One accords with a structure of biological processes described by physiological laws of nature. The other has a psychological structure of thinking, feeling and acting for reasons.

The idea that there is a difference of kind between these forms of knowledge dates back to debates about psychology in the late nineteenth century called, in German, the *Methodenstreit*. The philosopher and psychiatrist Karl Jaspers is of particular relevance to mental health nursing. Like now, psychiatry at the start of the *twentieth* century was dominated by neuroscience and the assumption that mental illnesses were really brain illnesses. Jaspers thought that biological psychiatry had been taken too far and stressed the need for *understanding* in addition to *explanation*. Whilst explanation tracked objective measurable symptoms, understanding was necessary to grasp subjective symptoms. Taking empathy to be a key aspect of understanding he said:

Objective symptoms can all be directly and convincingly demonstrated to anyone capable of sense-perception and logical thought; but subjective symptoms, if they are to be understood, must be referred to some process which, in contrast to sense perception and logical thought, is usually described by the same term 'subjective'. Subjective symptoms cannot be perceived by the sense-organs, but have to be grasped by transferring oneself, so to say, into the other individual's psyche; that is, by empathy. They can only become an inner reality for the observer by his participating in the other person's experiences, not by any intellectual effort. [Jaspers 1968: 1313]

The distinction between explanation and understanding can be thought of as the difference between deriving events from general scientific natural laws concerning what typically happens

versus fitting them into normative patterns of *good* reasons, what *should* happen, what makes shared sense.

The distinction has an echo in the balance in contemporary mental healthcare between Evidence Based Medicine (EBM), on the one hand, and person centred care, on the other. Whilst EBM emphasises the importance of generalities by privileging evidence derived from large scale randomised control trials (RCTs), person centred care stresses the importance of a focus on individual patients.

In order to care for patients and service users nurses need knowledge that spans both sides of this distinction. They need to grasp the laws that govern the workings of human physiology and which describe the course of illnesses including mental illnesses. But they also need to be able to *understand* mental health service users or patients: their hopes, fears, beliefs, desires and experiences. This is knowledge of central importance for healthcare.

How then is it possible to generate new nursing knowledge on both sides of this conceptual divide? New *explanatory* knowledge – that is knowledge based on natural scientific laws – is the focus of Evidence Based Medicine whose main approach is the randomised control trial (RCT) or, even better, the meta-analysis of randomised control trials. Such knowledge is underpinned by research that seeks out larger and larger study groups in order to avoid the potential errors and biases introduced by small populations and particular researchers.

New knowledge from the other side, the understanding rather than explanation side, of the distinction calls for a different approach: to continue to listen to the changing beliefs, wishes and feelings of patients recognising that listening is a skill that can be practiced and developed. By contrast with the ever more general perspective of explanation, looking away from the individual to the general population-based research of EBM, the key focus for *understanding* is away from the general and towards the individual patient.

### **Knowledge of facts and values**

In the previous section, we outlined the importance of a distinction between explanation based on general laws and understanding individuals in a distinctive way by trying to fit their utterances, experiences and actions in ways that make shared sense. In their influential book, *Evidence-based Medicine: How to practice and teach EBM*, David Sackett and colleagues define EBM as follows. 'Evidence based medicine is the integration of best research evidence with clinical expertise and patient values.' [Sackett et al 2000]. This is a surprising definition. Normally the focus of EBM is on the first element of that tripartite division: research evidence. But Sackett et al widen their definition to include two further aspects: expertise and values. They give a further brief preliminary sketch of each as follows.

By *best research evidence* we mean clinically relevant research...

By *clinical expertise* we mean the ability to use our clinical skills and past experience to rapidly identify each patient's unique health state and diagnosis, their individual risks and benefits of potential interventions, and their personal values and expectations

By *patient values* we mean the unique preferences, concerns and expectations each patient brings to a clinical encounter and which must be integrated into clinical decisions if they are to serve the patient. [ibid: 3]

This broad definition suggests a further important distinction for nursing knowledge: that between facts and values.

Nurses need to know about research evidence concerning the workings of the brain and mind – the biomedical facts – but also about values: those of their patients and service users but also their own and those of broader society. They need to know not just about evidence based- but also about

values based-practice. This prompts the following question: is knowledge of values a distinct kind of knowledge from knowledge of facts?

Let us take an example. Mrs Jones is a 29 year old mother of one. She has a diagnosis of bi-polar affective disorder, which is successfully managed by Sodium Valproate. She and her partner are planning to try for another child. This poses two risks, firstly that of neural tube damage in the potential child, birth defects and developmental delay. A second factor is the risk of Mrs Jones developing post-partum psychosis. She has some choices. She may well wish to continue taking Sodium Valproate, with a full understanding of the risks to her child. Perhaps she has been on other mood stabilising medication in the past and has found the side effects unbearable. A further issue could be that Mr and Mrs Jones express a desire that, if Mrs Jones were to become psychotic after childbirth, she be treated at home rather than a mother and child unit. This again contravenes best practice. But there could be reasons why Mr and Mrs Jones would wish for treatment at home.

As we stressed at the start, nursing is a practical discipline. It aims to change the world as well as understand it. So a case like this prompts the question: what is the right course of action? An informed answer will include the best medical evidence for the likely prognoses of interventions. But knowledge of the bio-medical facts is only part of the story. Another part might concern relevant economic facts concerning treatments permitted by NICE. But another will concern the *values* relevant to a decision. These will include those values encapsulated in mental health law concerning capacity. They will include a range of ethical factors some of which will command wide agreement whilst others will be contentious. Yet others concern the wishes, hopes, fears of, primarily, the patient or service user.

Outlining the nature of values based practice is beyond the scope of this chapter. But it is obvious that knowledge of facts and values can be very different. There is no equivalent of RCTs to decide how we ought to act. The closest equivalent, in the case of medical ethical values, might be knowledge of ethical principles such as the Four Principles approach of respect for beneficence, non-maleficence, autonomy and justice [Beauchamp and Childress 2001]. But whereas natural forces, for example, can be added together using vector addition, there is no general calculus for saying when, for example, the principle of autonomy should trump beneficence and when the other way round. Further, ethical values are merely one subset of the values, preferences, traditions that need to be taken into consideration in values based practice and thus the prospect for codifying all the value judgements relevant for clinical decisions are dim.

Some proponents of values based practice argue for an even more dramatic difference in the nature of knowledge of facts and values. Bill Fulford, for example, thinks that values are subjective. They lie merely in the eyes of the beholder. Fulford thus argues that successful values based practice in mental healthcare does not aim at a correct judgement but to follow a good process [Fulford 2005]. It is a matter of following the appropriate deliberative process, exercising good communication skills, and seeing what view emerges rather than aiming to get the values in a particular situation objectively right.

Others argue that even though there is no algorithm for forming a view of what to do in a particular situation, that does not rule out the idea that value judgements aim at truth, that value judgements are objective [Thornton 2011]. On this latter view, whilst knowledge of values is not reducible to, or codified in, general principles it is still a form of knowledge of the values inherent in the clinical situation.

But whatever the best view of values based practice there is no doubt that values based practice and evidence based practice call on different kinds of expertise based on a sensitivity to different features of the world: the bio-medical facts and patients' and others' values. Nurses need both, however.

Is it possible to generate new knowledge of values relevant for nursing practice? (We considered new knowledge of explanatory facts relevant for nursing practice in the previous section.)

**Reflection point:** *think for a moment about the kind of skills that might be involved in values based practice. Do they depend on knowledge of values? If so, how does one acquire such knowledge?*

This is a difficult question for which there is no clear cut answer. To begin, it depends on the view of values one takes. If one thinks that value judgements are subjective then there are no new truths about values to be discovered, because there are no truths about values, merely new truths about what people, as a matter of fact, like or dislike. But, even so, there may be new approaches to values based practice in the way that Fulford's or the 'Four Principles' approaches were both new developments in their day.

If on the other hand, one thinks that values are real or objective features of the world, then the possibility of new general knowledge of values will hang on the possibility of a kind of moral – and other value – progress. On this view, the present day rejection of the historical claim that plantation slaves who had a compulsion to run away suffered a form of mental illness, 'drapetomania', is a piece of moral progress and hence new knowledge of the values that underpin mental health and illness. It is a piece of *knowledge*, on this view, because reasons can be given to justify the claim that there was something wrong with thinking of such behaviour as pathological. Exploring such reasons is as much developing a kind of sensitivity to other people as it is learning general rules.

### **Tacit and explicit knowledge**

The characterisation of evidence based medicine from Sackett and colleagues above also highlights a further distinction of kind within nursing knowledge. Sackett defines expertise as the 'ability to use our clinical skills and past experience to rapidly identify each patient's unique health state and diagnosis, their individual risks and benefits of potential interventions, and their personal values and expectations' [Sackett et al 2000: 3].

This characterisation contains two elements already mentioned in the previous distinctions. Clinical expertise is directed towards individuals and their unique states and circumstances, picking up the understanding side of the first distinction (explanation versus understanding). It is also directed at their values and expectations, picking up the values side of the second distinction (knowledge of facts versus values). But it also suggests a practical recognitional skill is in play and that suggests a third, important, distinction: between explicit and tacit knowledge.

The idea of tacit knowledge was first promoted by Michael Polanyi. In his book *The Tacit Dimension* he says:

I shall reconsider human knowledge by starting from the fact that we can know more than we can tell... Take an example. We know a person's face, and can recognize it among a thousand, indeed among a million. Yet we usually cannot tell how we recognize a face we know. So most of this knowledge cannot be put into words. [Polanyi 1967: 4]

Tacit knowledge is *tacit* because it is 'more than we can tell'. We cannot *tell how* we know things that we know tacitly. But why not? Surely to be a form of knowledge, there must be something – some *content* – known? On the standard model of knowledge, this content is a belief (eg. *that Terry is due for medication*). But if so, why can this not be put into words?

**Reflection point:** *What kind of thing could be known but not be put into words? Do we use 'knowledge' about anything other than knowing facts, knowing that something?*

Polanyi himself suggests a clue to this riddle:

I may ride a bicycle and say nothing, or pick out my macintosh among twenty others and say nothing. Though I cannot say clearly how I ride a bicycle nor how I recognise my macintosh

(for I don't know it clearly), yet this will not prevent me from saying that I know how to ride a bicycle and how to recognise my macintosh. [Polanyi 1962: 88]

Polanyi suggests that we call 'tacit' any knowledge of how to do something: practical knowledge. When one knows *how* to do something one knows *something* but typically one cannot put it fully into words. Nursing, being a practical discipline, contains much practical, tacit knowledge. This includes knowledge of how to do things: basic clinical skills but also the recognitional skills mentioned by Sackett et al.

That recognitional skills are tacit is important to mental healthcare. For the last fifty years, both of the main diagnostic manuals for mental illness (the World Health Organisation's International Classification of Diseases (ICD) and the American Psychiatric Association's Diagnostic and Statistical Manual (DSM)) have adopted an 'operationalist' approach. Syndromes are described by lists of observable or expressible symptoms. Presented with an individual, the diagnosis of a specific syndrome is justified because he or she has enough of the relevant symptoms which can be, as closely as possible, 'read off' from their presentation. Such an approach to diagnosis emphasises explicit knowledge.

Nevertheless, there remains a key role for tacit knowledge because there is always a gap between even a very thorough *description* of a symptom and its *expression* by a particular patient or service user at a particular time [eg Sims 1988]. The skilled practitioner learns to see that the words set out on the page apply to the lived experience before them. This skill is not itself a matter for explicit knowledge since sooner or later, whatever is written down in general terms has to be applied on the ward. It is a practical skill in recognition.

We suggested in the first section that knowledge cannot rest merely on luck and still count as knowledge. Although Robin had a true belief that it was time for Terry's medication, she did *not* know it.

**Reflection point:** *Does that restriction apply to tacit knowledge? Stop reading and think what might be the equivalent for practical or tacit knowledge of justification for explicit knowledge? How does practical or tacit knowledge avoid resting on mere luck?*

The clue is in the idea that tacit knowledge is a form of practical knowledge and practical knowledge is a skill. So the equivalent of justification for tacit knowledge is having developed a general ability through practice, repetition and criticism. This suggests the route to new practical or tacit knowledge for nurses: the arduous work of moving through the hierarchy connecting novice to expert practitioner [Benner 2004; Dreyfus and Dreyfus 1986].

### **Is there such a thing as nursing knowledge?**

In the previous three sections, we have examined three distinctions that apply to the knowledge that underpins nursing care. Knowledge can concern explanation (using laws of nature) or understanding (making sense through reasons); facts or values and be explicit or tacit. In each case, we have argued that nursing practice should be based on knowledge from both sides. This suggests that the way to learn and to generate new knowledge, both individually and as a discipline, varies.

In this section we wish to raise a more provocative question: is there such a thing as 'nursing knowledge'? This is not the same as asking whether nursing should be based on knowledge and whether nurses should keep up to date with new developments and findings. Of course it, and they, should. But is there a characteristic unified field of knowledge that could helpfully be called 'nursing knowledge' and can it help to define nursing itself? In an article called 'Defining nursing knowledge', Angela Hall says suggests that the answer to both is 'yes'. She says "What is nursing knowledge?" is a complex question, the answer to which helps define nurses as a profession' [Hall 2005: 34]. We think that the answer to both questions is 'no' and that this places a particular burden or duty on nurses.

We have argued that the knowledge nurses need to have lies on both sides of a range of significant distinctions: knowledge necessary for explanation but also for understanding; of facts but also values; and both explicit and tacit. This suggests that 'nursing knowledge' is not a simple unified kind at all but instead comprises different kinds or sorts all of which are necessary for the practice of nursing.

To reject the idea that there is a unified underlying concept of 'nursing knowledge' is not to reject the idea that the different aspects highlighted in this chapter are all important and all are kinds of knowledge. They are but they are gathered together to underpin the nature and role of the profession of nursing: centrally what is needed for caring for patients and health service users. Nursing knowledge is *whatever knowledge is needed properly to realise that aim or role*.

This places a heavy burden on nursing as a profession and individual nurses in maintaining their knowledge base. It is impossible to put limits in advance on the areas of human inquiry which might provide knowledge relevant for improving patient care. Even now, nursing education draws on the biological sciences and chemistry, psychology, communication, management science and moral philosophy. The duty for the future is to keep an open mind to developments from any other discipline that might have a bearing.

### **Can nursing knowledge be *co-produced*?**

Much of the discussion of nursing knowledge focuses on the *nurse* as acquiring and having knowledge. But it is also important to consider the role of the patient or service user and in particular to consider their role as co-producer of knowledge.

Historically, the role of the patient has been a passive one. The patient was thought of as the 'problem' needing to be solved. That patients may themselves have knowledge has been regarded as a mixed blessing, with the role of nurse and clinical professionals being to extract the 'wheat' of knowledge from the 'chaff' of patients' descriptions of their experience. This process was rendered more difficult in mental health nursing where there may be a concern that the patient lacks insight and whose testimony may therefore be unreliable. As well as making the generation of knowledge more difficult, this observer/object relationship can lead to therapeutic conflicts.

Modern nursing has seen the development of service user /patient involvement, expert patients, self-management and peer support. These developments have changed the role of the patient from passive recipient of nursing to active player in a partnership. The term 'co-production' is applied to these and other partnerships. Co-production typically involves both professionals and service users (and often informal carers) bringing their skills and experience to a joint process that creates something new. This collaborative approach can be applied to the process of generating knowledge, both at the individual case level, and at a more widespread level in developing research and practice.

**Reflection point:** *consider the idea of nurses and patients co-producing knowledge. What are the challenges? What are the benefits?*

Some of the challenges will depend on the nature of knowledge. If, for example, we consider the definition 'justified true belief' then we need to consider whether both 'justification' and 'truth' can have common meaning to nurse and patient. Nurses are trained to assess information in a particular way; patients are not. Patients are living the condition, and living with the consequences of the condition; nurses are not. We also need to consider the power differences that exist as a result of the respective roles of nurse and patient including the legal powers that may affect the relationship.

While these may be challenges, the differences in perspective, experience and even perception also offer potential benefits. This chapter has highlighted the diversity of forms of knowledge needed for nursing care. If we ensure that knowledge is co-produced, this broadens the experience and values that contribute to knowledge.

**Conclusion: the art of nursing**

We began this chapter by asking the very general question: Why should nurses aim to have *knowledge* of their subject? What is the *value* of knowledge? One way to address that is to consider the nature of knowledge itself. On a traditional view dating back to Plato, knowledge is a state that fuses belief, truth and justification. Even if a circular definition, this highlights the intimate connections between these concepts. Given this, nurses should aim at knowledge because, among other things, knowledge supports successful action and nursing is a practical discipline.

Despite the *general* argument for the importance of knowledge for nursing, subsequent sections have highlighted the different kinds of knowledge that underpin nursing care, calling for quite different ways of acquiring new knowledge. And thus it seems that there is not a single unified field that nurses should aim to know. This suggests a central task for the nurses as experts in diverse forms of knowledge. In the presence of a particular individual, nurses have to select the knowledge appropriate to 'each patient's unique health state and diagnosis, their individual risks and benefits of potential interventions, and their personal values and expectations' in Sackett's phrase.

This task fits a distinction between what the philosopher Immanuel Kant calls 'determinate' and 'reflective' judgement in his *Critique of Judgement* [Kant 1987].

If the universal (the rule, principle, law) is given, then judgment, which subsumes the particular under it, is determinate... But if only the particular is given and judgment has to find the universal for it, then this power is merely reflective. [Kant 1987: 18]

In a *determinate* judgement, one already knows the general concept that is relevant to a particular instance, and deduces from it something that follows from that. For example, if one knows that Mrs Jones is suffering from mild depression and one knows that those who are mildly depressed are likely to respond well to CBT then one knows that Mrs Jones is likely to respond well to CBT.

The case of a *reflective* judgement is different. It corresponds to the case of meeting a particular individual and seeking out the general concepts that fit him or her, for example, that he or she is suffering from depression. Kant argues that this is an essentially *imaginative* task involving a 'subjective harmony of the imagination with the understanding'. But he also thinks that this harmony is the source of pleasure in understanding art.

Because nursing has to draw on an open ended list of other disciplines to match knowledge to the particular needs of individuals, it requires the exercise of what Kant calls reflective judgement. But further, if Kant is right then the *knowledge* at the heart of nursing, the *knowledge* to select the right subsidiary scientific and other knowledge called for by particular patients in particular situations, is an art. Thus nursing is an art as much as a science.

### **Commentary by Jan Verhaegh, board member of *European Network of (ex-)Users and Survivors of Psychiatry (ENUSP) and Autism Europe***

Health problems are always problems of the whole person. That means that they have a biological, psychological and social dimension. In the Netherlands we have physicians who treat mainly the physical dimension, psychotherapists who treat mainly the psychological dimensions and nurses who take care of both the physical and psychological dimensions. In some institutions nurses, who have the greatest contact with patients, are called 'socio-therapists' because of their focus on the social dimension. They need, practically, to be trained in such knowledge and skills for example to empower their patients. But they also need broader knowledge of their patients' social worlds such as what it means to live in a patriarchal unequal world which can lead to violence, abuse, mistreatment and so on and thus in turn to mental and physical health problems.

For example, recent research links the intelligence of people with Asperger's syndrome to the experience social stress because of bullying, social conflicts and exclusion which can in turn lead to psychosis [Selten et al 2015]. The most intelligent young people suffering from Asperger's are 18

times more likely to develop psychosis than a neurotypical child. To take care of such people, nurses need knowledge of the biological, psychological and social dimensions of health and illness.

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## Learning outcomes

Readers will be able to:

- List some fundamental distinctions between kinds of knowledge: understanding versus explanation, tacit versus explicit, facts versus values.
- Articulate some of the key properties of knowledge in general
- Differentiate between explanation and understanding.
- Compare different views of the subjectivity or objectivity of value judgements.
- List examples of tacit knowledge.
- Outline the advantages of and challenges to the co-production of knowledge

## Further reading

For an introduction to philosophical accounts of knowledge in general

Pritchard, D. (2006) *What is this thing called knowledge* London: Routledge

For a general book on philosophy for nursing

Reed, J. and Ground, I. (1996) *Philosophy for nursing*, CRC Press

For an account of nursing ethics

Armstrong, A. (2010) *Nursing ethics: a virtue-based approach*, Palgrave

For a wide ranging discussion of tacit knowledge knowledge

Gascoigne, N and Thornton, T. (2013) *Tacit Knowledge* Durham: Acumen

For a discussion of Dreyfus' hierarchy of skills applied to nursing

Benner, P. (2004) 'Using the Dreyfus Model of Skill Acquisition to Describe and Interpret Skill Acquisition and Clinical Judgment in Nursing Practice and Education' *Bulletin of Science, Technology & Society* 24: 188–19

For discussion of the subjectivity or objectivity of values based practice

Loughlin, M. (ed) *Debates in Values-based Practice: arguments for and against*, Cambridge: Cambridge University Press

#### **Web resources**

Values based practice

<http://www2.warwick.ac.uk/fac/med/study/research/vbp/>