Contemporary Issues in Coronary Care Nursing

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‘Like many fathers, he had a favorite ritual: to put his whole family in the car and drive. It didn’t matter where, what mattered was that he was at the wheel.’

Signe Hammer (*c.* 1946) American author

Thanks dad for being at the wheel when I needed you…

Contents

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Foreword

Cardiac care, and especially coronary care and the role of nurses and nursing within it, has changed markedly over the past decade. The evidence-base has improved substantially and the organisation and delivery of services have changed radically. Even the diagnostic labels applied to patients have changed, with the emergence of acute coronary syndromes. Prevention and rehabilitation have, somewhat belatedly, assumed increasing importance. Nurses continue to play a pivotal role but this is ever changing in order to keep up with the advances in medicine, science and technology, emergence of new knowledge, an ageing population and the increased expectations of patients and their families as well as of nurses and other health professionals.

This book, which emphasises the nursing role in coronary care, is a welcome addition to the literature, complementing the growing number of other books on cardiac and coronary care available on the market. It is very much focused on the perspective of the nurse and nursing, with coverage of nursing theory, care planning, risk factor management, patient education, research utilisation and nurse-led services. It is clear when reading the book that it is written by an enthusiastic and committed cardiac nurse.

Its primary target audience is students and nurses working in coronary care. I am sure they will find it an invaluable resource.

Professor David R.Thompson BSc MA PhD MBA RN FRCN FESC
May 2004

Chapter 1
Nursing theory in coronary care

KEY POINTS

- The utilisation of nursing theory and conceptual models of nursing is necessary for the advancement of nursing.
- The implementation of conceptual-model-based practice requires a rigorous, systematic and collegial approach.
- The selection of a conceptual model for practice is dependent upon the beliefs and values held by the organisation or department.
- Critical appraisal of conceptual models is an essential component of the utilisation process.

Introduction to nursing theory

> Nurses are responsible for the care they provide for their patient. They have to be active, competent and autonomous in providing this care and be able to justify what they do. It is no longer acceptable for nurses to base care on ritual and tradition—they must be able to justify the decisions they have made about appropriate care and treatment on the basis of professional expertise.
>
> (McSherry et al. 2002: 1)

Stewart (2002) suggested that cardiac nursing is 'at a crossroads of an important moment in its history'. Having abandoned what he terms 'archaic' rituals such as confining patients to bed following myocardial infarction, he suggests that nursing 'can be proud of its efforts to create new ways of caring for patients'. However, the extent to which nursing has abandoned these rituals and adopted new practices is unclear. This notion of ritualistic or task-oriented care, although perceived as predominantly a feature of the past, is a potential feature of new nursing roles. The expanding cardiovascular nurse roles (Riley et al. 2003) within Europe, although welcome, are often not standardised and are unregulated. As a result some of these roles involve little more than the performance of junior doctors tasks.

This point was highlighted by a leading cardiac nurse/academic, Thompson (2002), who stated that many new roles of cardiac nurses 'have developed organically…without any systematic planning or evaluation'. He also highlighted that 'there is a danger that [in these roles] nurses focus solely on particular aspects

of medical treatment rather than focus on the totality of patient care'. He suggests that current evaluation of many of these roles indicates that they pay little attention to the 'important contextual factors' such as the person and environment.

Nursing has long been associated with the use of rituals and tradition, and although these have declined in many areas of nursing they still prevail (Riegel et al. 1996, Jacobson 2000, Strange 2001). There are a variety of reasons for this—lack of autonomy, lack of knowledge, hierarchical systems and avoidance measures, to name but a few. Little consensus exists regarding their exact origin, however, there is consensus that nursing needs to move away from these traditional operating frameworks towards evidence-informed nursing.

Evidence-informed nursing is 'the integration of professional judgement and research evidence' (McSherry et al. 2002:3). It requires nurses to be 'knowledgeable doers' and have a 'systematic approach to providing nursing care' (McSherry et al. 2002:3). Nurse theorists have long advocated for the use of nursing theory to inform a systematic approach to nursing care. Nursing theory offers researchderived evidence to inform the nursing knowledge base (Fawcett 2003). Stewart (2002) suggests that nurses in general and cardiovascular nurses in particular need to begin to generate new theory to inform practice.

Nursing theory offers nursing a distinct scientific knowledge base to guide practice. Without the use of nursing theory to guide practice, the work of the nurse may be oversimplified. In addition, nursing in some situations may appear as a discrete set of tasks or orders, thus under-estimating the complexity of the role. Given the increasingly medical aspects of some cardiac nursing roles as described by Thompson (2002), it is time therefore to consider the potential contribution of nursing theory to coronary care nursing.

There is considerable discussion and debate, within the nursing literature with regard to the usefulness of nursing theory to inform nursing practice. Fawcett (1999) expressed concern with today's nursing practice, suggesting that there is little evidence of nursing theory occupying what she describes as its true position as the central tenet of nursing practice. The fact is supported anecdotally in coronary care practice, where there is lack of consistency of both use and application of nursing theory.

Fawcett (1999) and Alligood (2002a) both strongly advocate that nurses base their practice upon nursing theory. Fawcett (1999) suggests that 'It has become increasingly clear to [her] that the discipline of nursing can survive if, and only if, we end our romance with medical science and the conceptual frameworks and theories of non-nursing disciplines'.

Fawcett (1999) would like all nurses to 'embrace' nursing theory and conceptual models to ensure survival of the discipline. The author recommends that all nurses must 'fall in love with nursing science now and develop a passion for the destiny of the discipline of nursing'. Conversely, Cormack and Reynolds (1992:1473) suggested that the use of conceptual models and theory 'provides no more than a pseudo-scientific respectability'.

Despite Fawcett's (1999) and Alligood's (2002a) commitment to the development of nursing practice through nursing theory and conceptual model use, there is opposition within nursing to this view. Rawnsley (1999) in response to Fawcett's paper, rejected the notion of a purist knowledge base for nursing in favour of a more inclusive approach to nursing that draws on many areas of knowledge other than nursing. Similarly, Heath (1998) highlighted that many theorists have become preoccupied with the role of theory development in raising nursing's professional status rather than concentrating on what is best for the patient. Heath (1998) dismissed Fawcett's views regarding the need for a distinct body of knowledge to guide nursing and develop the discipline, as extreme. Much criticism of nursing theory and conceptual models of nursing also emanates from scholars who hold post-modern views (Timmins 2002).

The debate continues, however, from a practising nurse's perspective. Current evidence suggests that the use of theories and conceptual models of nursing may be a useful adjunct to practice and therefore should

be embraced. Their development and use for cardiac nursing is also advocated (Fawcett et al. 1992, Stewart 2002, Timmins 2002).

The development of nursing knowledge has been a prevalent theme in the nursing literature for the past 30 years. Prior to the gradual development of nursing theory and conceptual models in the USA in the 1950s, Alligood (2002a) suggests that nursing practice was based on principles and traditions passed on through apprenticeship education and common-sense wisdom that came with years of experience. Although some nurse leaders aspired for nursing to develop as a profession and an academic discipline, 'nursing practice continued to reflect vocational heritage more than professional vision' (Alligood and Marriner-Tomey 2002a: 5). The latter have suggested that theory development in the USA has contributed to the transition of nursing from vocation to profession.

Although the USA has been largely responsible for theory development within nursing, it is recognised that scholarly work came from within Europe as evidenced by the plethora of nursing journals disseminating the research endeavours of many countries. Alligood (2002a) suggested that it is difficult to compare theory development within Europe to the USA. From an academic perspective, Europe has integrated nurse education into university settings less universally and at a slower pace than in the USA. As nursing schools within Europe began to formalise links with third-level institutes from the 1960s, nurses holding doctorate degrees were in the minority. This embryonic nature of postgraduate development of the profession as a whole has the effect of limiting scholarly activity (Treacy and Hyde 1999). The slow development of nursing science within Europe was highlighted by Evers (2002) suggesting difficulty with transference of American knowledge due to language and lack of empirical testing of American theories of nursing.

Despite the relative naivety of European nurses in theoretical and empirical development and the difficulties noted by Evers (2002), the American perspective on the profession of nursing and its theoretical base has been readily embraced in many areas. The work of many American theorists has been translated into several languages, and theories emanating from the USA are widely used throughout Europe (Fawcett 1995).

One theory of nursing developed in Edinburgh and forming the basis for the Roper-Logan-Tierney (RLT) model of nursing (Roper et al. 1980, 1985, 1990, 1996) is widely used throughout the UK and Ireland. Its recognition and inclusion in one recent text (Alligood and Marriner-Tomey 2002b) may indicate growing recognition by the USA of the presence of theory emanating from outside.

What is nursing theory?

Florence Nightingale (1820–1910), who laid the foundations of theoretical development in nursing, suggested that 'the most important practical lesson that can be given to nurses is to teach them what to observe, how to observe, [and] what symptoms indicate improvement' (Nightingale 1992:59), thus indicating the importance then, as now, of a systematic and methodical approach to nursing care. She described how patients who had a lot of information to give would provide little to the nurse if the questioning technique was poor and unfocused. She went on to describe 'how few there are who, by five or six pointed questions, can elicit the whole case and get accurately to know and to be able to report where the patient is' (Nightingale 1992:61). Observation features highly in her writings and she suggests careful and detailed observation with use of directive questioning can lead to appropriate diagnosis. This notion of guiding nurses' observation towards accurate diagnosis underpins much of today's nursing theory.

Nightingale (1992) also argued that nursing had a distinct function outside of medicine in the observation and treatment of patients, prevention of disease and evaluation of care. These words were written in a less

sophisticated healthcare environment; however, discerning what constitutes nursing and the notion that nursing is more than the administration of medical orders are themes that permeate the text, and have occupied nurse theorists for decades.

One prime motivator for the development of nursing theory in recent decades is the belief that, although nurses work in parallel with many other healthcare professionals, they assess, plan, implement and evaluate care in their own right. Using nursing theory to guide this process provides a suitable theoretical framework with which to conceptualise, describe and inform the unique contribution of the nurse in healthcare settings.

The complexity of contemporary nursing practice requires a systematic approach that complies with current trends of patient-centred care. Application of theoretical works to nursing practice serves to clarify the nurse's function in nursing situations and provides a rationale for nursing actions. It also offers a unique perspective of the patient that is holistic and not disease focused. The use of a conceptual model prescribes a systematic approach to care based on sound theoretical principles, with particular emphasis on assessment, planning, implementing and evaluation of care. However, there are difficulties with the understanding and application of these concepts in practice.

Confusion exists with regard to differentiating between conceptual models and theory (Fawcett 1995). The terms are often used interchangeably, and while many theorists outline both a theory and a conceptual model, significant differences exist in the definition and understanding of both (Fawcett 1995).

Practising nurses are most familiar with the use of conceptual models. These are one component of what Fawcett (1995) termed a structural hierarchy of nursing knowledge. Fawcett's (1989, 1993, 1995) work was pivotal in developing nursing's understanding of conceptual models. This important contribution was acknowledged by Alligood who suggested that Fawcett developed 'a paradigm explanation of the interconnectedness of the various nursing theoretical works…which began to clarify different levels of abstraction…' (2002a:8).

Fawcett (1995) stated that conceptual models form the fourth component in a hierarchy; the first component is the metaparadigm, the second is philosophy, the third is theory and the fourth is conceptual models (Box 1.1). The metaparadigm outlines global concepts that identify what phenomena are of interest to any discipline. This is the most abstract level of knowledge in the hierarchy. It specifies the main concepts that encompass the subject matter and the scope of the discipline. In nursing, these are *the person, the environment, health* and *nursing* (Alligood and Marriner-Tomey 2002c).

These concepts form the four central areas of interest to nursing (Fawcett 1995). The person is the receiver of care, including individuals, families and communities. The environment is the person's family, physical surroundings and the healthcare setting. Health is the 'person's state of well being…' (Fawcett 1995:7). Nursing is that which is done by nurses for the patient.

The concepts of a metaparadigm are extremely broad. They serve to represent the views within a discipline, and distinguish a domain which is very different from that of other disciplines, but its purpose is not to provide direct guidance to practice (Fawcett 1995).

Philosophy is the second component in the structural hierarchy of contemporary nursing knowledge (Fawcett 1995). It may be defined as a statement of beliefs and values (Kim 1983). The path from the metaparadigm of the discipline to philosophy is non-linear, i.e. philosophy does not follow directly in line from the metaparadigm, and does not directly precede conceptual models. Rather a cyclical relationship exists. The metaparadigm identifies areas about which philosophical claims are made. The unique focus and context of each conceptual model then reflects the underlying philosophy (Fawcett 1995).

The next component in the structural hierarchy of nursing knowledge is theory. Theory is a concept devised for a particular purpose. In nursing this purpose goes beyond description to theory that informs the nursing situation. Theory, although abstract, is capable of being translated into reality. Theory is a proposed

structure that shapes and guides reality. This structure is made up of things and situations that constitute the theory (Dickoff and James 1968).

Theories that are broadest in scope are called grand theories. These are made up of rather abstract and general concepts and propositions that cannot be generated or tested empirically. Middle-range theories are narrower in scope and contain a limited number of concepts which are empirically measurable. Middle-range theories are the least abstract level of theoretical knowledge because they include details specific to nursing practice, such as patient condition (Alligood and Marriner-Tomey

BOX 1.1
THE NURSING KNOWLEDGE HIERARCHY

- Metaparadigm
- Philosophy
- Theory
- Conceptual models

Adapted from Fawcett, J. (1995) *Analysis and Evaluation of Conceptual Models of Nursing*, 3rd edn. Philadelphia: F.A.Davies.

2002a). Theories are described as either unique or borrowed. The latter are borrowed from other disciplines rather than developed exclusively for nursing.

The final component in the structural hierarchy is conceptual models of nursing. These provide explanations of nursing. They identify the purpose and scope of nursing and provide frameworks recording nursing actions and effects (Fawcett 1995) and frameworks for systematic approaches to nursing care. Each conceptual model provides a unique direction to nursing practice.

Advocates of conceptual-model-based practice consider models useful adjuncts to guide complex nursing situations (Bush 1997). It is also suggested that the demands of the healthcare environment are such that nurses often do not have the time to investigate every aspect of a patient's situation and that conceptual models provide a framework that allows for prioritisation in assessment and care planning (Raudonis and Gayle 1997). This is consistent with Nightingale's (1992) call for astute observation by nurses to prevent misdiagnosis and missing important patient cues.

It is also argued that models facilitate nursing practice becoming more logical and less reliant on tradition and intuition: there is a systematic rather than a routine approach to care. Nursing care delivery becomes more consistent and precise with their use (Alligood 2002b). Rather than each nurse using their own experience and ideas about the world to guide their practice, the suggested framework, philosophy and theories inherent in each model guides them (Raudonis and Gayle 1997). Nightingale (1992) also advocated a structured approach to patient assessment, rather than relying on personal and traditional practices.

Nursing is a relatively new discipline and, although significant theoretical development has taken place over the past 30 years, nursing knowledge is now at a crossroads. To complete the cycle of theory development, practical application and testing is essential. In order for nursing knowledge to make a difference, it must be used in practice settings. Nursing is entering a new era, according to Alligood (2002a)—theory utilisation—where nurses begin to use and research nursing theory in practice settings. This may add the crucial dimension that the current theory development cycle requires, thus narrowing the hiatus that exists at present between theory and practice in some areas (Wood and Alligood 2002).

Although knowledge development emanates from the testing of theories in the practice setting, conceptual model use is also crucial to this phase of nursing knowledge development. Fawcett (1999) suggested that the latter is not only a 'hallmark of success in nursing' but would ensure the 'survival of nursing as a discipline', which she fears, is in danger of extinction (Fawcett 2000). There are many, including Fawcett (1995, 1999, 2000) who argue that the recognition of nursing as a distinct discipline and a profession is dependent on ensuring that nursing practice has a sound theoretical base.

While utilisation is important, it is also important to take nursing knowledge development one step further by evaluating benefits to patients, staff and nursing situations. A gap exists in this particular aspect of nursing knowledge that is evident in the literature on the topic.

The RLT conceptual model for example has professed benefits such as developing nursing curricula and improved documentation and individualised care (Tierney 1998). However, by the admission of one of the co-authors, there is limited empiri cal evidence in existence supporting the effects of RLT use on patient outcomes (Tierney 1998). Griffiths (1998), Mason (1999) and Murphy et al. (2000), who all examined the use of RLT in a variety of nursing situations, revealed that it did little to inform practice and the associated documentation was cumbersome.

Orem's Self Care Deficit Nursing Theory (SCDNT) (Orem 2001), although purported to be one of the most widely used theories in practice (Berbiglia 2002), also has empirical deficits. While the literature abounds with practical application of Orem's conceptual model, few empirical studies have examined SCDNT in practice (Spearman et al. 1993, Taylor et al. 2000). Many studies identified both by Spearman et al. (1993) and Taylor et al. (2000) in their reviews, revealed that while the SCDNT was often used as an organising framework or a component of the study its use was so limited that it did little to advance nursing knowledge in this area.

Spearman et al. (1993) found that, while many studies used Orem's SCDNT as a basis for research, the majority (87%) had minimal or insufficient use of theory. Only four studies (13%) were categorised as adequately using theory. Similarly, Taylor et al. (2000) highlighted that the studies were descriptive in nature; only one experimental study was identified. Most studies focused on further description of the theory and only few studies examined theory from a practice perspective.

This may be a reflection of the embryonic stage of theory development within nursing. According to Toulmin's (1972) four-stage framework, nursing theory evolution is not complete. In the first stage, the discipline identifies its own body of knowledge, areas of concern, methods and goals in a slow developmental fashion. This is certainly evident in nursing from the existing hierarchy of nursing knowledge. Stage two involves the filtering of ideas and concepts with rejection and retention of ideas as appropriate with those fitting the discipline surviving over time. Nursing theory has undergone limited empirical testing and refinement, with scepticism evident in the discipline to its usefulness and place in nursing. The third phase involves adaptation of theory by the discipline in an environment of debate, critique and innovation. The extent to which this has taken place is debatable. Although some individual theories and conceptual models have been adapted and developed, much exising theory remains irrelevant and obscure to nurses in practice. Some perceive that this is due to a failure to develop theories that are appropriate to the everyday needs of nursing practice. In the final phase, ideas, concepts and theories that are most useful in meeting the local demands are selected by the discipline for use. Although Meleis (1997) rejects the notion that the development of nursing knowledge could or should follow an evolutionary course, a gap exists between theory development and use of theory in practice (Bush 1997).

Recognition that current scepticism about nursing theory and conceptual model use in nursing is a natural development that concurs with stage two of Toulmin's (1972) framework of concept evolution may pave the way for movement towards adaptation and critical debate on the topic prior to the final utilisation phase.

Stewart (2002) recognised that nursing is struggling with its theoretical foundation and suggests that it is time for 'rigorous debate and constructive criticism within our profession…it is time for us to shrug off our comfortable apathy and become more engaged'. Although Alligood (2002a) suggested that we are entering the utilisation phase, from a European perspective, there is time for more critical discussion, debate and adaptation prior to this event.

In today's ever-changing complex coronary care environment, nurses require a high level of skills. The demands of coronary care require practitioners to adopt thoughtful insightful practices. These attributes are key components of what is termed as *critical practice* (Brechin 2000:26). Critical practice is firmly enshrined in the practice domain. Building upon the work of Barnett, Brechin (2000) suggested that inherent domains of critical practice are critical analysis, critical action and critical reflexivity. They suggest that health professionals require all three skills to meet the challenges of a practice that is filled with uncertainty (Brechin 2000). *Critical analysis* requires on-going enquiry and analysis. Rather than simply relying upon prior knowledge and practices the practitioner *evaluates* their relevance.

As an alternative to the pursuit of a new theory for cardiovascular nursing as suggested by Stewart (2002), critical practice challenges nurses to evaluate current knowledge and theory (critical analysis), question personal values and assumptions (critical reflexivity) and use these to inform a sound skill base (critical action). Nurses are challenged therefore to question the extent to which current nursing knowledge informs practice.

Using nursing knowledge to inform nursing practice

The potential of knowledge development within nursing to raise the professional profile of nursing is a predominant theme in the literature. However, the ability for this knowledge to translate into real benefits in practice is debatable. In addition, there is evidence of reluctance to apply nursing theory and conceptual models in practice.

The notion of nursing theory is clearly a product of the USA and it often elicits debate concerning the relevance and usefulness of theory in and for nursing in Europe (Riley et al. 2003). Timpson (1996:1030) suggests that 'nursing theory has a reputation for abstraction, even irrelevance, in the minds of many practitioners. A case very much of art for art's sake'.

One possible reason for reluctance to apply theory in practice is the questionable potential of abstract theories to guide what is primarily a practical discipline. Nurses in practice also often fail to see where theory can guide and improve practice when, on a day-to-day basis, nursing frequently meets the goals of patient care without the use of a clearly defined theory.

This latter success hypothetically emanates from nurses operating from their own personal knowledge base, using it as a frame of reference for practice (Johnson 1987, Ellis 1989). Despite the purported success with this approach Ellis (1989) suggested that the result is the application of 'imperfectly articulated intuitive knowledge'. While some level of intuition is clearly important for nursing practice (Johnson 1987, Ellis 1989) Timpson (1996) suggests that the absence of a sound theoretical base can potentially reduce nursing 'to the domain of the common-sense'.

Clearly, the lack of a sound theoretical base has the potential to undermine the professionalism that many have been striving for many years to achieve. However, for theory to be widely accepted by nurses, its applicability and relevance to practice must be clear. In the early stages of theory development, Dickoff and James (1968) and Ellis (1968) stated that theory *must* be useful for and be able to guide nursing practice.

Recent studies confirm the difficulty that nurses have with the application of conceptual models in practice. Griffiths (1998) examined the effects of two conceptual models of nursing on nurses' descriptions

of patients' problems. The findings revealed that when describing patients' problems there was little evidence of application of the two models. Information was often not committed to written record but rather stored 'in the memory of the nurses', which Griffiths (1998) suggested was problematic as 'essential information was often only lodged in the nurse's head, and thus subject to loss'.

Similarly, Murphy et al. (2000) revealed that nursing staff were ambivalent towards the use of conceptual-model-based care plans. This study examined whether or not the RLT conceptual model was a suitable model for directing nursing care for clients with mental illness in an Irish setting. The findings revealed that the model had guided assessment and interventions in very few cases. Most evaluations of identified goals were not completed. Nearly all care plans revealed under-utilisation of the model. The study indicated a lack of consistent and appropriate use of the model.

These findings echo Mason's (1999) UK study into the use of care plans with the RLT conceptual model. Completing care plans was a burden to busy staff and did little to contribute to planning or evaluating care. Consistent with Griffiths' (1998) study, staff relied on verbal reports rather than the care plans. Most nurses in the study were 'keen to voice their dislike of care plans', describing them in derogatory terms.

Negative views of conceptual models in practice may be compounded by a view that most nursing theories and conceptual models profess universal application. Contemporary views are that a careful selection process takes place so the model chosen reflects the values and beliefs of the nurses using it. In addition, where lack of control in implementation is perceived, which was the case in Mason's (1999) study, there is a lack of trust and ownership of the model. In the past, managers often imposed models of nursing upon nurses. While this impetus may have been well intended from a management perspective, this top-down approach is very likely to result in resistance.

Systematic selection of conceptual models for practice is endorsed by many authors (Mason and Chandley 1992, Bush 1997, Lister 1997). Bush suggests that it is the responsibility of practising nurses to analyse conceptual models to ascertain their potential benefits and contribution to practice.

Selection of a conceptual model of nursing for use in the coronary care unit

Many areas of practice lack consensus regarding the use of models, indeed, Fawcett et al. (1992) noted that application of conceptual models to critical care nursing has been addressed by few authors with no consensus emerging as to one best fit.

What is clear from the literature is that conceptual-based nursing in the clinical area requires a systematic process of selection and adoption. Rather than prescribing models for use, this approach allows nurses to make their own choice, depending on individual practice circumstances. This is consistent with the notion of critical practice. Providing nurses with a quick solution of the best-fit model may reduce model use to a series of tasks (such as documentation, as revealed in many studies), which totally contradicts the whole ethos of conceptual model-based care. Or the model may exist on paper but not reflect the reality of practice (Griffiths 1998). Indeed, Mason and Chandley's (1992) qualitative exploration of model (unidentified) use by nurses described a 'hypereality', where the model had a camouflage quality that did not reflect reality. Empowering nurses to critically evaluate conceptual models for practice and adapt them for use in practice is the only means of these concepts being truly accepted by nurses and used in practice.

In one paper, Fawcett et al. (1992) suggested that selection of conceptual models of nursing may be guided by individual patient need, rather than subscribing to the notion that one model fits all. However, the practicalities of implementing individualised care according to the most suitable model for each patient are fraught with difficulty. Indeed, Fawcett (1995) later suggested that it is best for the whole healthcare institute to adopt one conceptual model to avoid confusion.

Fawcett (1995) outlined a more generalised approach to the implementation of conceptual-model-based nursing, recommending an eight-stage approach to the selection process. The first phase involves articulating a vision. The second phase entails forming a group to determine feasibility of implementation. This may include nurses who may have a particular interest in this area or nursing managers who require and change in practice in this area. If the implementation appears to be feasible, the third phase begins involving forming a planning group and devising longterm goals. Key nursing personnel from the clinical arena need to be involved at this stage. The fourth phase entails a review of documents that serve as a base for nursing practice, including the mission statement and philosophy (Fawcett, 1995). In the fifth phase, staff choose a conceptual model. Fawcett (1995) suggests that this phase should proceed through four main steps (Box 1.2).

Fawcett (1995) also suggested that it is essential that this fifth phase involves comparing various conceptual models to the beliefs and values of healthcare institutes. She recommended that education of nursing staff is crucial and this constitutes the sixth phase. In phase seven, Fawcett suggested that a pilot scheme should be introduced, whereby certain clinical areas are chosen to adopt the process for a

BOX 1.2
THE PROCESS FOR CHOOSING A CONCEPTUAL MODEL OF NURSING FOR USE IN THE HEALTHCARE SETTING

1. Analyse and evaluate several conceptual models of nursing
2. Compare the content of each conceptual model with the mission statement of the healthcare institute to determine if the model is appropriate for use with the population of care recipients served
3. Determine if the philosophy that underpins each model is congruent with the philosophy of the nursing department
4. Select the conceptual model that most closely matches the mission of the healthcare institute and the philosophy of the nursing department

Adapted from Fawcett, J. (1995) *Analysis and Evaluation of Conceptual Models of Nursing*, 3rd edn. Philadelphia: F.A.Davies.

designated period. This phase is essential to deal with any initial problems that may arise. The final phase (eight), is widespread adoption of the conceptual-model-based nursing practice throughout the healthcare setting.

Using a systematic approach as outlined above to the selection and adoption of a conceptual model for nursing care is crucial to success in practice. Empirical and anecdotal evidence suggests that where conceptual-model-based practice is imposed upon staff with little consultation, the result is limited use of the model in practice. A systematic approach allows nursing staff in the clinical area to have ownership of the project and this is likely to yield successful adaptation. This has been demonstrated in some nursing areas (see McClune and Franklin 1987, Sutcliffe 1994 and Graeme 2000).

Several papers have addressed conceptual model selection; these often refer to selection *and* subsequent adaptation of models. Although adapting models for use in practice is not a concept that has received much attention in American-based theoretical literature, there is growing interest in the UK towards adapting

models at the local level. Roper et al. (2001) stated that their model might be adapted for use in the practice setting.

The Mead model (Sutcliffe 1994) is commonly referred to when considering models for use in critical care settings. It is an adaptation of the RLT model developed on Mead Ward, St Thomas's Hospital, London (McClune and Franklin 1987). Sutcliffe (1994) reported how this model was selected for use in the Royal Brompton Hospital's intensive care unit (ICU) and renamed the Mead model. Sutcliffe's paper reports a good example of staff working together to develop a shared philosophy and using this to inform selection of model of nursing. An audit revealed that the previous model in use was not congruent with the philosophy of the unit and therefore was disregarded by many staff in the course of their duties. Sutcliffe (1994) described how most nurses were instead using their own personal philosophies and models to guide and direct patient care. Sutcliffe (1994) felt that this resulted in care being given in a very individualised manner that caused confusion, particularly for nursing students and new staff.

Sutcliffe's (1994) first task was to develop a nursing philosophy for the unit. This corresponds with Fawcett's (1995) first step in utilisation, creating a vision of nursing. A collaborate approach was used, whereby organised staff meetings were conducted on the unit at convenient times. The attitudes, beliefs and values of the staff were explored and articulated through brainstorming sessions and methods of anonymously presenting opinions. The attitudes, values and beliefs identified (Box 1.3) were incorporated into a unit philosophy by the staff during a series of meetings.

Once the philosophy was outlined, Sutcliffe (1994) was confident that the nurses had embraced the notion of a shared philosophy and that linking theory to practice would be a natural progression. The author was surprised and pleased by the level of staff empowerment, as they went on to develop a 'nursing model action plan', without further outside assistance. This action is congruent with Fawcett's (1995) third phase of utilisation, the formation of a planning committee and outlining longterm goals.

The staff outlined their goals for practice (Box 1.4) and began a search for a suitable model. This process involved individuals and groups critically analysing selected models and presenting the results to staff in the department. Following this,

BOX 1.3
ATTITUDES, VALUES AND BELIEFS OF THE CRITICAL CARE NURSING TEAM AS IDENTIFIED BY STAFF AT THE ROYAL BROMPTON HOSPITAL ICU (1994)

- Attitudes of a critical care nurse
  Caring
  Technically competent
  Confident
  Professional
  Educated
- Values of the critical care team
  The individual
  The family
  The nurse
  Knowledge and skills
  Quality of life
  Caring

Technically competent
Confident
- Beliefs of the critical care team
  Nursing is unique and holistic
  Individuals have the right to a high quality of life
  Critical care nursing requires interpersonal, academic and technical skills
  Education is a key element

Adapted from Sutcliffe, L. (1994) Philosophy and models in critical care nursing. Intensive *and Critical Care Nursing* 10:212–221.

BOX 1.4
GOALS FOR PRACTICE IDENTIFIED BY STAFF AT THE BROMPTON ICU (1994)

- Promoting independence in the patient
- Dignified death
- Preventing problems
- Involvement of the family

Adapted from Sutcliffe, L. (1994) Philosophy and models in critical care nursing. *Intensive and Critical Care Nursing* 10:212–221.

in-depth discussions between the staff regarding the suitability of a variety of models took place. In the end the staff settled on RLT as adapted in the Mead model. The staff felt that the RLT model in its original format did not deal specifically enough with the physical aspects of care, which are a feature of critical care units, but could identify with the adaptations. They perceived, however, that the family did not receive enough attention in either the RLT or the Mead model so in their use of the model they placed the family (and the individual within) at the centre. In addition, another area that caused concern was the ‘rather loose guidelines for assessing the individual—especially general headings physical. Patients admitted to the critical care area generally have physical needs that take priority.

Although the ability to assess these needs was well developed in many experienced critical care nurses, the Brompton hospital received many novice nurses so it was felt that it was necessary to have clear guidelines to provide direction. They therefore used prompts within each assessment category [Activity of Daily Living (AL)] to allow for an in-depth assessment of each area. The staff have been using the adapted model for more than a year and have found it to be ‘very successful in enabling us [them] to put into action the beliefs identified in the unit philosophy’ (Sutcliffe 1994). However, as reported frequently in other studies, they found the documentation time-consuming.

A crucial stage in the selection process is matching the values inherent in the model with values of the nursing situations. Alligood (2002b) suggests, the writing of a brief philosophy of nursing in the initial selection stage is useful and serves to clarify beliefs and values held by nurses in the area. Once beliefs are clarified a survey of the definitions of person, environment, health and nursing within various nursing models and theories can be carried out. A model may then be selected that is congruent with these beliefs. When in use it can be tailored ‘to the special aspects of your art of nursing’ (Alligood 2002b:57).

Graeme (2000) also used this process and outlined the selection of a conceptual model for a newly opened 18-bedded palliative care unit. The whole nursing team was involved in devising the model and patients were involved in evaluation. The staff initially decided on their collective philosophy of care, based on the beliefs and values of the nursing team. Then they began a search for a suitable model but 'no off-the-shelf model seemed to fit'. They opted for an eclectic selection and devised the 'Shipley model' (Graeme 2000).

Both Sutcliffe's (1994) and Graeme's (2000) papers outline a thoughtful and inclusive approach to the implementation of conceptual-model-based practice. Their particular emphasis on staff inclusion and identification of core beliefs, values and philosophies is congruent with Fawcett's (1995) guidelines. The result was successful adoption of models in practice. The education of the staff appeared to be a dynamic component of the process, rather than a formalised education structure. The latter would need to be considered by coronary care units considering model implementation or development, as education is fundamental to the process. In addition, the use of a pilot to test the model would help to familiarise staff and identify problems early before full implementation. Critical evaluation and analysis of conceptual models needs consideration.

Fawcett (1995) suggested that analysis and evaluation of conceptual models is an essential component of the selection process. Both Sutcliffe (1994) and Graeme (2000) highlight the failure of conceptual models to fully address their needs, however, the extent to which they performed a critical analysis of the models is unclear. Both authors were strongly guided by the beliefs and values of the staff in the units, which is an integral component of implementation (Fawcett 1995). However, of equal value in the process is the identification of potential conceptual models and subsequent critical analysis to reveal particular strengths and weakness. This is termed analysis and evaluation by Fawcett (1995) (these terms are used interchangeably with critical analysis and critical appraisal). Several frameworks to support this analysis are present in both nursing theory texts and papers on the topic.

Critical appraisal of conceptual models

Robinson (1993) suggested that nursing theories and models should not be adopted uncritically, as they may not be culturally applicable or easily adaptable. It is important that coronary care nurses adopt systems for evaluating conceptual nursing models. Critical thinking is an essential competency of nursing that requires nurses to challenge assumptions, consider context and use reflective scepticism (Brookfield 1987). Critical thinking underpins many of the components of critical practice (Brechin 2000) and ensures the adoption of a critical approach not only to the implementation but also to the appraisal of conceptual models.

In the past conceptual models were often adopted uncritically by nurses in practice with resultant apathy regarding use when they did not operationalise well. Critical appraisal is an essential step in the process of implementing conceptualmodel-based practice. Use of systematic frameworks to guide this process is a recurring theme in the literature, with most theoretical texts offering advice in this area.

Cormack and Reynolds (1992) outlined one such framework for evaluating the clinical and practical utility of models used by nurses. They suggested that nurses should evaluate the possible contribution of the model to practice, before selecting it for use. They present a set of criteria that nurses can use to evaluate a model in order to establish its value in the clinical setting (Box 1.5).

BOX 1.5

CRITERIA FOR EVALUATING THE CLINICAL AND PRACTICAL UTILITY OF CONCEPTUAL MODELS OF NURSING

- Is the conceptual model clearly understood by nurses?
- Is the scope of the conceptual model clearly delineated?
- Does the conceptual model outline an approach that is specific to nurses and nursing?
- Is the conceptual model based on tested and accepted theory?
- Is the conceptual model valid and reliable?
- Is the conceptual model geographically portable?
- Does the conceptual model assist with the identification of the range of human responses to actual or potential health problems?
- Does the conceptual model provide an explanation for common human responses to health problems experienced by individuals?
- Does the conceptual model enable nurses to identify nursing interventions?
- Does the conceptual model specify the desired outcome of nursing interventions?
- Does the conceptual model comply with accepted ethical standards in nursing?

Adapted from Cormack, D.F.S. and Reynolds, W. (1992) Criteria for evaluating the clinical and practical utility of models used by nurses. *Journal of Advanced Nursing* 17:1472–1478.

Using these questions to examine the potential benefits of conceptual-model-based practice can be quite helpful to nurses in the coronary care unit. It is often difficult to assess the strengths and weaknesses of conceptual models without the assistance of a formalised structure. This framework enables the nurse to make judgements about the conceptual model without over-reliance on anecdotal evidence. It allows for an informed and balanced judgement regarding the crucial components of a conceptual model. Consistent with other suggested frameworks identified in the literature, it does not provide strict guidance, such as scoring system, to interpret the responses but leaves interpretation open to the user. While this approach may be criticised for lack of direction it does allow the judgement regarding the importance of each item to be worked out at a local level.

Many writers express the difficulty nurses experience with the understanding of conceptual models and Cormack and Reynolds (1992) suggest that the model should be easy to understand. This guideline empowers nurses to reject a conceptual model if its underlying theory, philosophy and methodology are incoherent to the nurses in the area. They suggest that if the average nurse does not understand it then the model will be of limited value in practice. The RLT model (Roper et al. 1980, 1985, 1990, 1996), which was used extensively in Europe in the 1980s and 1990s, was noted to be easily understood (Marriner-Tomey 2000)—one reason, perhaps, for its relative popularity.

Cormack and Reynolds (1992) also state that the scope of the model should be clearly delineated. It should be clear whether or not the model is applicable to the particular clinical setting and if it could meet the needs of the specific patient group. Most conceptual models claim generalisability across settings and do not explicitly recommend its use in particular settings. However, examination of the theoretical underpinnings of the model, including its definition of nursing, the environment, health and the individual, should be clear. This information may guide clinicians as to the suitability for use in particular settings. Another route for exploration is to search for literature that examines or uses the conceptual model; this may give an indication of its scope in a particular area. Many textbooks on conceptual models, such as Alligood

and Marriner-Tomey (2002b) and Fawcett (1995), outline studies and other literature in which particular conceptual models have been utilised and these may also serve as a guide.

Cormack and Reynolds (1992) suggest that regardless of whether the model is unique to nursing or borrowed from another discipline it should inform clinicians in a manner that is unique to nursing. Cormack and Reynolds (1992) also stated that the model should contain specific information regarding its reliability and validity to inform practitioners. This is not always contained within primary sources; however, evaluation issues such as these and many others are dealt with in depth by many exceptional texts on the topic, such as Fawcett (1995), Meleis (1997) and Alligood and Marriner-Tomey (2002b).

Cormack and Reynolds (1992) view the issue of geographical portability as a serious one. They recognise that most models of nursing have emanated from the USA and have been globally applied to nursing situations. They suggest that it is therefore essential to consider the transferability of concepts, language and methodology, and to carefully assess usefulness in the particular setting from a cultural perspective before embarking on the conceptual model. Evers (2002) suggested that the difficulty with transferring language contributed to stifling nursing theory development in Europe. This point was clearly highlighted by Shamsudin (2002), who used a grounded theory approach to the adaptation of a conceptual model of nursing to Malyasian nursing practice.

Cormack and Reynolds (1992) also suggested that a model should easily assist the nurse to identify a patient's problems, provide an explanation for human responses, enable nurses to identify nursing intervention, and specify the potential outcome of care. The model should also allow nurses to use it within the constraints and responsibilities of their practice and it should comply with ethical principles in nursing. The extent to which the conceptual model is capable of this is dependent on the particular context and the views of the nurses. It is also dependent on the decision makers having an accurate knowledge of the inherent properties of the conceptual model, which facilitates an informed judgement.

Nursing staff in contemporary coronary care units often operate in high-pressure environments with high patient turnover and significant patient morbidity. Current emphasis on providing evidence-based care encourages nurses to question the evidence that informs their practice. While there are not many empirical studies supporting conceptual-model-based practice, there is sufficient evidence to convince many of their usefulness in practice and their potential benefits to patients, nurse satisfaction, delivery of nursing services and the development of the profession.

Using evidence in practice involves the integration of professional judgement and empirical evidence (McSherry et al. 2002). Conceptual-model-based practice, which has been a feature of Western nursing for the last three decades, now requires a greater integration of professional judgement with the existing evidence to evaluate the usefulness of conceptual models in the coronary care unit. This requires reflection on current practice, the use of key texts on the topic, such as Fawcett (1995), Meleis (1997) and Alligood and Marriner-Tomey (2002b), and the use of systematic evaluative frameworks, such as Cormack and Reynolds (1985) or those outlined in the preceding textbooks. Where conceptual models are in current use, it may be useful to evaluate their effectiveness. The process outlined for selecting a model can be adapted to aid staff in developing current models in a local setting. However, given the complexity of today's healthcare environment, it is becoming increasingly important that nurses within particular areas all operate from a similar frame of reference.

The use of conceptual-model-based nursing provides frameworks that guide nurses in the assessment, planning, implementation, and evaluation of patient care. Their use in coronary care units may guide nurses to conceptualise and prioritise observations and care. In addition, this approach reflects a dimension of care that is distinctly nursing. While nursing practice is inextricably enmeshed in multidisciplinary practice, ensuring that patients receive not only consistent and coherent care, but also the best possible care, is reliant

on outlining and operationalising the unique contribution nursing through the use of conceptual models to guide practice.

The nursing process (assess, plan, implement and evaluate) is often used to operationalise conceptual-model-based nursing. This is facilitated in practice by the use of documentation that guides the nurse in these areas. In order to demonstrate the use of a conceptual model in practice the following chapter focuses on planning nursing care using Orem's self-care deficit theory, providing examples of proposed documentation.

Summary and conclusions

The discipline of nursing is progressing from that of vocation to one of professional status in many countries. Nurses are highly valued by society and the individual practitioners' skill and artistry are an integral component to the dynamic of the practice setting. Nursing theory and conceptual model use are considerable attributes to this growing profession and, while conceptual model use is common in many areas of nursing practice, nurses need to develop a deeper understanding of its theoretical foundation and its potential usefulness to nursing situations. This is consistent with critical practice, which is a feature of contemporary nursing.

Whether conceptual model use is being considered for the first time, or reconsidered in a unit where model use exists, it is important to consider the fit between the model and the unit's philosophy. It is also important to involve the healthcare team in model selection to increase ownership and improve likelihood of success. It is also important to use a systematic approach and critically analyse the chosen model. In today's environment of the evidence base it is no longer acceptable to practice unquestioningly. While conceptual models of nursing undoubtedly have a strong empirical grounding, it remains the nurse's responsibility to question the evidence that informs particular model use. Blind acceptance of models in practice, can result in replacing new rituals for old. This is evident in many studies.

For conceptual model use to become a reality and make a difference to practice, nurses need to take ownership of the models, select an appropriate one for use, develop and adapt it locally if necessary and above all evaluate its usefulness and contribution to quality patient care using rigorous research.

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