

# A review of the information needs of patients with acute coronary syndromes

Fiona Timmins

## ABSTRACT

The individual nature of information required by hospitalized patients with coronary heart disease (CHD) has been of concern to nurses for over 20 years. An information need is not necessarily a gap in knowledge that can be satisfied by education. It represents what the patient wants to know from the professional in order to cope effectively with the current situation. Through analysis of available literature, it seems that patients appear to prioritize information that is pertinent to survival, such as symptom management, rather than broader lifestyle issues such as exercise and diet. Although information needs are individual and subjective to each patient, trends emerge within patient groups. Information needs of patients with CHD in coronary care unit and ward setting occur across eight or more common areas. Through patient-centred communication, patients' preferences for information in these topics can be derived and used as the basis for information delivery. Individual idiosyncratic needs can also be noted and addressed.

**Key words:** Information need • Coronary heart disease • CCU • Patient

## INTRODUCTION

Cardiovascular disease is a major cause of death in the UK and accounts for 39% of all deaths (British Heart Foundation, 2004). Half of these deaths are due to coronary heart disease (CHD). Each year, about 270 000 people suffer a myocardial infarction, and over 2 million people in the UK suffer with angina (British Heart Foundation, 2004). CHD and stroke combined accounts for 3% of all hospital admissions (British Heart Foundation, 2004).

While in the past, the UK was recognized as being significantly behind other areas of Europe in terms of mortality rates, great progress been made in recent times (Department of Health, 2004). The National Service Framework (NSF) for CHD, published in 2000, set the agenda for the modernization of CHD health services. The percentage of patients receiving thrombolysis within 30min of arriving in hospital has increased from 38% in 2000 to 81% in December 2003 (Department of Health, 2004). There has also been a great increase in consultant cardiologists and expansion of advanced nursing roles including nurse consultants. The death rate from heart disease in the

under 75-year-old age group has dropped by almost a quarter since 1996 (Department of Health, 2004).

Current policy focuses on improving the quality of services for patients in relation to quick access to and administration of thrombolysis, primary angioplasty, provision of risk factor management information for patients in the primary health care setting and improved medication regimens for those who have suffered myocardial infarction (Department of Health, 2004). The result of these initiatives has resulted in a better service for patients with a corresponding reduction in mortality rates (Department of Health, 2004).

This new and improved service provision for patients with myocardial infarction have significantly altered the hospital experience for many including shorter hospital stays. Improved access to primary angioplasty and thrombolysis and receipt of prompt treatment in the acute phase often prevent the natural and often-devastating progression of the infarction.

Of interest to note is that while the mortality rate is falling in the UK, morbidity from CHD is rising (British Heart Foundation, 2004). As nurses, we welcome a potential reduction in incidence and prevalence rates of disease as well as mortality rates. Indeed, these are valid and reliable indicators of health status (McQueen and Anderson, 2003). However, an individual patients' perception of their own health is more complex. Hence, there are limitations within this approach.

**Author:** F Timmins, MSc, BNS, BSc Health & Soc (Open), FFNRC SI, NFESC, RNT, RGN, Cert., ICU/CCU Nursing, Director BSc (Cur), School of Nursing and Midwifery Studies, Dublin 2, Ireland

**Address for correspondence:** School of Nursing and Midwifery Studies, 24 Dolier Street, Dublin 2, Ireland  
E-mail: timminsf@tcd.ie

While an overall reduction in mortality rate and improved services for patients with CHD is welcomed, support for clients to assist them with coping with events during the early recovery period is crucial (Thompson, 1990). While information giving within primary health care settings has recognized importance within recent reforms within the NHS (Department of Health, 2004), the necessity for in-hospital information provision has received less priority. Furthermore, the current emphasis on in-hospital information giving focuses largely upon risk factor management rather than the broader information that individuals may require prior to discharge to manage their health and improve their quality of life. Indeed for many, this phase of recovery is too early to receive this type of information (Timmins, 2005a).

Patient centeredness needs assessment, and patient empowerment are prevalent themes in current health policy (Department of Health, 2000, 2004). Furthermore, an individualized needs based approach to education is likely to be more effective (Mullen *et al.*, 1992). It is timely therefore to re-consider patients' information needs in this area. Specifically, isolating priority information needs of this group as identified by patients may be useful to nurses who are providing information to patients during short hospital stays. The aim of this review is to re-examine the information needs of patients following myocardial infarction in light of the current context of health care provision and the gaps that exist in patients' knowledge.

## Background

The provision of education to patients with acute cardiac disorders has been a predominant theme in the literature for the past 20 years. Increasingly, patients recovering from myocardial infarction/acute coronary syndromes, cardiac bypass surgery and angioplasty are being offered structured programs (cardiac rehabilitation) in the post-discharge phase that encompass a great deal of education on lifestyle and medication. Education commencing within the acute phase (phase I), while patients are in coronary care, is sometimes, although not always, a component of these programs. Indeed, Thomas (2001) observed that there was often little by way of structured education delivered to patients during this period. Rehabilitation programs traditionally start at 6 weeks (phase III), although earlier intervention now also occurs (phase I or II) in some areas. There are an ever-increasing number of cardiac rehabilitation programs emerging internationally, and the role of the nurse or other health professionals working directly in this area is becoming increasingly specialized. Education within the hospital setting and initial discharge period is less well evolved.

Early research within the cardiac rehabilitation field consisted of quasi-experimental work that examined the effectiveness of individual programs (Barbarowicz *et al.*, 1980; Milazzo, 1980; Mills *et al.*, 1985; Fletcher, 1987; Raleigh and Odothan, 1987; Sivarajan *et al.*, 1987; Steele and Ruzicki, 1987). Researchers also became concerned with understanding what it is that patients needed to know following acute cardiac events or surgery. A number of survey-based research studies were carried out over a 2-year period that examined this topic (Casey *et al.*, 1984; Gerard and Peterson, 1984; Moynihan, 1984; Karlik and Yarcheski, 1987; Chan, 1990; Wingate, 1990; Jaarsma *et al.*, 1995; Ashton, 1997; Turton, 1998; Hughes, 2000; Timmins and Kaliszer, 2003). This research approach had pragmatic origins. It was important to know whether programs had actually achieved their objectives of improving outcome. Similarly, it was of benefit to ask patients directly what they needed to know and to use this to inform local practice. However, the research was also influenced by international trends. Following the Alma Ata declaration in 1978 and subsequent targets for health published by the World Health Organization (1985), a reorientation towards promoting healthy lifestyles occurred in international health care. Health promotion initiatives were adopted in many countries and continue as a predominant paradigm in current health care practice. Influential aspects of these developments were the recognition of the important role of the nurse in health promotion and needs based health promotion programs (World Health Organization, 1991).

Educational theory also influenced empirical trends; notably humanism and Knowles theory of Andragogy (Knowles, 1989). Rogers's (1983) writings heralded the foundation of humanistic theory and yielded a consideration of the individualistic nature of learning. Rather than a broad assumption that all individuals learn in a similar manner, academics began to consider that for teaching to be successful, individual human factors need consideration. Thus, the notion of individual motivation to learn such as self-concept, self-esteem became popular. Rogers (1983) suggested that rather than acting as authority figures, educators should facilitate learning through the understanding, acknowledgement and consideration of unique motivations. This latter theory has enjoyed popularity in nurse education settings and to a limited extent in cardiac nursing. Knowles (1989) theory of Andragogy has enjoyed more success. This theory emphasized, like humanism, the individual nature of learning. In particular, highlighting that an individual needs to be ready to learn. Self-concept is also important, as is the role of previous experience. Knowles suggested that

adults are capable of being self-directed in their own learning and can diagnose their own learning needs.

In 1994, two published literature reviews, Mirka (1994) (Canada) and Wang (1994) (USA) highlighted the potential value of using Knowles' theory of Andragogy (1989) in CCU-based cardiac education programmes. Mirka's focus on this theory related to the need to assess patient's prior experience, readiness to learn and self-concept, which she suggested as an alternative to the medical model. Wang's (1994) aimed to identify MI patients' perceived learning needs while in CCU and concluded that nurse and patients' perceptions of educational needs varied 'tremendously' (pp.34).

A recent systematic review of the literature on this topic (Scott and Thompson, 2003) echoed Wang's (1994) propositions. Scott and Thompson (2003) restated the view that nurses do not always perceive patients' information priorities correctly. The authors also suggested further recommended using formalized methods of assessing patients' information needs 'as they arise' in CCU and during other recovery phases a point endorsed by Wang (1994).

In the 1980s, to focus specifically on identifying the individual learning needs of cardiac patients. Many of these used Andragogy as a basis for their study (Chan, 1990; Wingate, 1990; Turton, 1998; Hughes, 2000; Timmins and Kaliszer, 2003). In the USA, in 1984, Gerard and Peterson (1984) devised the cardiac patient learning needs inventory (CPLNI). This tool has been used and validated in several subsequent studies. It contained eight categories relevant to cardiac teaching. In this original study, nurses and patients were asked to rate the importance of each category across the first two phases of recovery (CCU and discharge). The categories were Introduction to the Coronary Care Unit, Psychological Concerns, Risk Factors, Information about Medications, Dietary Information and Miscellaneous Information.

The findings of this study (Gerard and Peterson, 1984) relate to 31 patients who had experienced a myocardial infarction and 36 nurses who cared for them. The study employed the CPLNI to gather data during structured interviews. The category of risk factors received the highest overall mean score for patients both before and after discharge from hospital, whereas medications received similar attention from the nurse group. The individual item receiving the highest overall mean score from both groups was 'what to do for chest pain'. When overall mean scores were placed in rank order 'signs and symptoms of angina and an MI' was ranked highly by both nurses (3rd) and patients (4th), as was 'when to call a doctor' (4th for both groups).

Karlik and Yarcheski (1987) (USA) replicated the patient data collection method of the previous study using a sample of 30 patients who had experienced a myocardial infarction and 30 nurses in the first two phases of recovery. The findings reflected those of Gerard and Peterson (1984), again the category of risk factors received the highest overall mean score for patients whereas nurses ranked medications highest.

Chan (1990) (USA) also used the CPLNI to collect data from 30 myocardial infarction patients in the first two phases of recovery. The category of medications received the highest overall mean score from patients in the first phase, and the risk factor category emerged as priority learning in phase 2. The individual item 'when to resume sexual activity' was reported as receiving the lowest overall response across both phases of recovery.

Another USA study that used the CPLNI to collect data was Wingate (1990). This author used Knowles (1989) theory to support the study. The study of 32 MI patients across the first two phases of recovery revealed risk factors as a priority. Czar and Engler (1997) used a modified version of the CPLNI to gather data from 28 with diagnoses of either MI or angina. Symptom management received the highest overall mean score during phase 1, cardiac anatomy and physiology ranked highest in phase 2. Lowest ranking priorities during both phases were smoking, work and sex (categorized individually).

Up until 1998, all of the published work on this topic emanated from North America. This aspect of cardiac nursing had received little attention in Europe or the UK. The first published British Study on the topic emerged in 1998 (Turton, 1998). Turton (1998) surveyed patients (18) and their partners (18) and nurses who cared for them (18). The CPLNI was used to collect data. Findings revealed that lifestyle factors ranked first for both nurses and patients, while partners results ranked symptom management number one. Both categories were the two most important categories of information for both the patient/partner and nurse groups.

Based on rank ordering of the results, Turton (1998) concluded that there were little differences between nurse and patient groups, unlike previous studies. Two categories revealed significant differences between nurse and patient groups: activities and drug information, which patients viewed as being of lesser importance. Differences in responses to individual items were not compared, although graphical representation of the differences in ranking of the least important items was used to visually compare differences in responses. Differences that emerged here were more emphasis on resuming sexual activity by

nurses (of least importance to patients). Two other USA studies using the CPLNI had also emerged at this time (Ashton, 1997; Czar and Engler, 1997). Ashton (1997), using a sample of 121 patients, compared men and women's information needs, with no significant differences emerging. When rank order was considered, both men and women rated risk factors and medications as most important.

Later, Hughes (2000) (UK) explored the self-perceived information needs of 31 patients post myocardial infarction. Concerned with the reliability of the CPLNI, which had hitherto relied upon internal consistency as a measure of reliability, Hughes administered both the CPLNI and an adaptation of this instrument [Information Needs Inventory for Patients Post-Myocardial Infarction (INIPPI)] to perform a test-re-test comparing the results of both. Risk factors emerged as priority information need from both questionnaires. Hughes (2000), committed to the notion of individualized need assessment, suggested this 42-item questionnaire (INIPPI) as a possible tool for collecting this information from patients in CCU. However, this lengthy survey could be impractical for daily use in as it is cumbersome for both patients and staff, and also depends on high literacy levels. In addition, although claiming increased reliability, the correlation coefficients differed only marginally between both tools used in the study.

Timmins and Kaliszser (2003) used the CPLNI, as adapted by Turton (1998), to examine information needs of myocardial infarction patients in Ireland. One major finding of the study was that the scales within the questionnaire were found to be extremely non-discriminating and highly skewed towards 'very important'. Nurse and patient responses were only somewhat different. Three statements, all in the 'Physical activity' category, accounted for this difference. These were statements 24 (when to resume driving), 27 (when to resume sexual activity) and 28 (when to resume work). The mean score of 'Symptom management' significantly exceeded the mean scores of all the other categories. There was agreement between the patients and all nurses combined in ranking the category Symptom management, first, and ranking highly (at rank 2 or 3) the categories Medication information and Lifestyle factors. The study revealed that the overall patient mean scores were lower than the corresponding nurse mean scores.

Consistent findings from these studies indicate that patient information needs to be provided on areas that are vital to patient survival and ongoing control of symptoms. 'What to do about chest pain' and 'the signs and symptoms of a heart attacked' received high scores from patients across studies. More recently, the

category symptom management emerged as a priority area. The importance of medication information to patients varied between studies and over time for individuals. It is also reportedly more importance in recent studies. In general, diet and activity were rated of lower importance by patients than other items, and nurses generally scored these items higher. Resuming sexual activity was an information area scored low by all patients throughout the recovery period. Although this was rated of higher importance by many nurses. This supports Chan's (1990) view regarding in-hospital education for this population, that '...it would be wise to concentrate energy on content central to survival...'.

CCU education programmes should be concerned with providing practical information to patients, based on what they perceive, or may be taught to perceive, as crucial to survival and well-being. Of interest to note the most recent studies to use the CPLNI, Turton (1998) and Timmins and Kaliszser (2003) found increasing congruency between nurse and patient groups perhaps reflecting an increased public understanding and knowledge of the importance of their role and responsibilities in their recovery. Scott and Thompson (2003) recently commented on perceived increase in public awareness since the early studies of cardiac information needs with today's patients regarded as 'more active, assertive consumers of health care'. The emergence of symptom management as a top priority for both nurses and patients is partially responsible for this congruence thus indicating perhaps that we as nurses gaining a better understanding of what it is patients need to know. However, it could simply be that a change in the CPLNI (addition of symptom management and substitution of the term risk factor) yielded more accurate results. This reflects one methodological issue associated with CPLNI use.

There are other methodological issues that warrant discussion. As highlighted, the CPLNI predominates as a data collection tool in this area. The use of largely quantitative methodology has meant an emerging positivistic body of knowledge emphasizing measurement of needs rather than true expression of patient need. These tools have also been primarily driven and devised by professionals with little consideration of patients' views (Scott and Thompson, 2003). There is also concern about the discriminatory ability of measurement scales (Timmins and Kaliszser, 2003) reliability (Hughes, 2000) and the stem question 'I need to know' (Hughes, 2000). However, despite these limitations, many of the emerging needs are also supported in other studies using both quantitative (Moynihan, 1984; Jaarsma *et al.*, 1995; Oterhals *et al.*, 2005) and

qualitative methods (Thompson *et al.*, 1995; Roebuck *et al.*, 2001; Wiles and Kinmonth, 2001; Gambling, 2003; Hanssen *et al.*, 2005). Hughes (2000) adapted instrument demonstrated only a marginal improvement in test-re-test reliability, and similar overall findings emerged.

Many studies that utilized the CPLNI tended to emphasize and draw out supposed variations between nurse and patient views, when in reality items were all viewed as important. The differences reported were often spurious, derived from rank ordering of the means mean values, which is often not a true reflection of the prioritization of items as (a) the respondents did not prioritize these items and (b) there were little overall differences between the means in the ranking. In general, the results of previous studies on the topic revealed that all categories and items within the CPLNI to be important for learning for both nurses and patients

There are difficulties with interpretation that require explanation. Areas possibly perceived as less important by patients could be attributed to lack of patients' recognition and understanding of what is important for them to learn. Medication advice, although it doesn't come out strongly as a patient priority, must be recognized as a nursing need. Patients clearly need advice and explanation in this area; in Jaarsma *et al.*, (1995) study more than half of the patients discharged suffered effects of treatment post discharge, and 23% of patients required further information in the area of medications. What may be required during assessment of needs in this area is negotiation with the patient to ensure that the nurse's need to provide crucial information is addressed. Although medications are a nurse priority, individual patient assessment may reveal that some patients actually require little information as a result of prior knowledge, whereas others may require a lot of support to achieve knowledge and understanding. Nonetheless, it is important to remember to avoid routine information giving in this area. Patients and spouses in Mclean's (2005) study were strongly opposed to the 'check list' approached experienced in the hospital. Patients and spouses felt that nurses had a list of items to report not all of which was relevant to them. People who for example didn't drive expressed a desire not to have received information on this area.

To overcome these issues requires is an initial individual identification of patient perceived information need, based upon an evidence-based menu that may be merged with perceived nurse need through negotiation. European and American guidelines on the topic (De Backer *et al.*, 2003) suggested patients with established coronary artery disease should be actively

encouraged to manage their lifestyle to reduce their risk of fatal coronary (or cardiovascular) event. This included risk factor management (smoking, obesity, diet, elevated cholesterol, diabetes and lack of exercise) and correct taking of medication. This implies that regardless of individual patient needs, and the debate about medico-educative approaches and positivistic notions of health, there is a professional responsibility to educate and inform patients appropriately regarding their condition as identified in the National Nursing and Midwifery Council (2004) code of conduct.

Nurses working with coronary care or recovery wards, by virtue of their close contact and time spent with patients, are in a prime position to impart information to patients with CHD recovering from acute events (Mirka, 1994). However, the approach to information giving is not uniform across hospital settings, and there are wide varieties in practice (Thomas, 2001). Little reference to this practice exists in the published literature, and there are wide varieties of approaches that are not uniform on an international or national basis (Jowett and Thompson, 2000). Anecdotally, the extent of information giving is often dependent upon the style of the individual nurse or the ethos of the CCU in question (Thomas, 2001). Despite the current emphasis on individualized cardiac patient education both in the hospital and post-discharge phase, many patients and families report information deficits following acute cardiac events (Jaarsma *et al.*, 1995; Webster *et al.*, 2002; Gambling, 2003; Scott and Thompson, 2003; Hanssen *et al.*, 2005). The approach used by nurses is inconsistent and lacks cohesive direction and information is given, often based on what nurses think patients need to know, rather than on the patients actual information needs (Scott and Thompson, 2003).

There is also a debate as to whether the nurse is the 'preferred informant' in the hospital setting (Scott and Thompson, 2003). That latter review suggested that patients preferred to receive information from medical staff, however, the authors noted that this may be due in part to a lack of emphasis by nurses upon the importance of the information. Over the past 20 years, nurses have been increasingly recognized as informants and educators (Close, 1988; Scott and Thompson, 2003). Contemporary conceptual models of nursing such as Orem (2001) view the supportive educative role as crucial and central to the nurse's role. The supportive educative nature of cardiac nursing within this framework has further been elucidated and validated (Jaarsma *et al.*, 1998; Jaarsma, 1999).

Regardless of the debate that may exist regarding who is best placed to provide information to patients,

a challenge exists for all those involved in health care in the delivery of quality information to patients in an era of concerns about cost effectiveness and shorter hospital stay. Placing education and information giving high on the health agenda is a struggle for all those involved in health care (Skelton, 2001). Studies consistently indicate that specific information needs exist for hospitalized patients with CHD (Gerard and Peterson, 1984; Karlik and Yarcheski, 1987; Wingate, 1990; Chan, 1990; Ashton, 1997; Turton, 1998; Hughes, 2000; Timmins and Kaliszer, 2003) which often differs from that which nurses perceive the patient requires (Gerard and Peterson, 1984; Karlik and Yarcheski, 1987; Turton, 1998; Timmins and Kaliszer, 2003).

Recent studies indicate that the information that patients receive is often insufficient to meet their own or their family needs (Gambling, 2003; Scott and Thompson, 2003; Alm-Roijer *et al.*, 2004; Hanssen *et al.*, 2005; Oterhals *et al.*, 2005). In the absence of clear guidelines, many patients use their own lay views to make decisions about lifestyle and recovery in this period (Gambling, 2003; Hanssen *et al.*, 2005). Many of these are misguided, and the provision of information within the hospital setting by nurses would serve to address this.

A recent study in Norway, Oterhals *et al.* (2005), reported that 'it is necessary to examine the current provision of in-hospital information and education to AMI patients. Patients want and need more information at discharge, especially about medication and problems that they may face after returning home'. The NSF (Department of Health, 2000) advocated an approach to cardiac care that is patient centred. Patient centred care 'seeks to elicit and satisfy those needs which patients express themselves, and sees this as the first step towards encouraging patients to take greater control over their own health' (Skelton, 2001). Thus effective needs analysis is an emerging priority.

### Identification of information needs

Patients in all studies reviewed expressed information needs (Gerard and Peterson, 1984; Karlik and Yarcheski, 1987; Chan, 1990; Wingate, 1990; Ashton, 1997; Turton, 1998; Hughes, 2000; Timmins and Kaliszer, 2003). Nurses also recognized the existence of specific information needs. In addition, there is an incumbent professional responsibility to provide information. The question remains as to whether these responsibilities can be met while at the same time providing an approach that is needs based and individualized. In what context therefore and under what circumstances should nurse/patient negotiated needs assessment take place? In the context of nurses' time

constraints and short hospital stays, this presents a great challenge.

The notion of developing a tool to assess patient information needs clearly emerges from the literature; however, there are little existent practical guidelines for CCU nurses in this area. Recent authors (Hughes, 2000; Scott and Thompson, 2003) suggested that the CPLNI or a similar tool could be used for this purpose. However, its design makes it too cumbersome for daily use in practice areas. Scott and Thompson (2003) suggested individual patient interviews, rather than a survey approach, which is an interesting concept. This open interview method was successfully used in the USA for risk general risk factor screening (Priest and Speller 1991; Williams, 1999) and smoking cessation (Kristeller, 1999). This approach is also patient centred. The use of patient interviews is not necessarily a new phenomenon for CCU nurses, who spend quite a considerable amount of time closely assessing patients and collecting patient information. It is of course a challenge to those units who are time and resource limited.

A significant body of knowledge has developed with regard to the information needs of myocardial infarction, and despite limitations the repeat use of the CPLNI strengthens and validates the findings (Scott and Thompson, 2003). Scott and Thompson (2003) performed a systematic review of this area and concluded that repeat use of this instrument allowed for good collation of data for interpretation in practice, whereas *ad hoc* use of other instruments were more difficult to interpret. However, an obvious omission from studies on the topic, the aforementioned systematic review and other literature on the topic are realistic recommendations on how to move this area forward. Recommendations included further research (Wang, 1994; Karlik and Yarcheski, 1987; Ashton, 1997) developing an instrument to identify individual patient needs (Wingate, 1990; Hughes, 2000; Scott and Thompson, 2003) individualizing teaching based on priority learning needs identified in the studies (Gerard and Peterson, 1984; Wingate, 1990; Chan, 1990; Czar and Engler, 1997).

Although, Scott and Thompson (2003) in their review were inclined to reject the results of these studies due to an over reliance on the positivistic approach, suggesting instead an open ended interview with each client to assess needs, an alternative view would be that valuable information exists within this research that needs to be adapted and used in practice. Focusing teaching solely on specific categories that are reported patient priorities (as suggested by some authors) is not a recommendation that this author puts forward. Firstly, as previously mentioned

the rank ordering of mean results creating a false impression of level of importance of items that didn't reflect the magnitude of response. Secondly, priorities may vary between patient groups and as Scott and Thompson (2003) point out. Timmins and Kaliszer (2003) recommend that all categories of the CPLNI (orientation to CCU, medication, risk factors/lifestyle factors, activity, diet and psychological factors) are regarded as important and should form a component of a teaching strategy within CCU. These items were regarded as at least somewhat important in all studies. Recent qualitative studies also suggest that patients require information in all of these areas (Thompson *et al.*, 1995; Roebuck *et al.*, 2001; Gambling, 2003). Of interest to note is that in these studies patients often only became aware of their information needs in the post-discharge phase. Therefore, nurses neglecting patient needs outright when in hospital, simply because the patient doesn't appear to want to know or need to know, may be irresponsible. Or it may be that they are unable to absorb the information during their hospital due to post-traumatic stress or other negative psychological responses to their illness, which may impair cognition.

In response to these dilemmas, Timmins (2005b) suggested the use of a short documented assessment interview to establish patient/spouse needs across eight key areas (introduction to the CCU/ward, diet, medication, physical activity, psychological factors, anatomy and physiology and symptom management and miscellaneous) while allowing individual responses. Readiness to learn, physiological recovery, socio-economic factors and intellectual capacity, beliefs about health and stage of change are also assessed and documented. This information is used to negotiate and plan patient teaching through supportive educative nursing care. Thus both patient and nurses' needs may be addressed in the planned care. This would also facilitate an examination of patients understanding of their condition and recovery (Wiles and Kinmonth, 2001). Individuals who are deemed not to be ready or able to receive information may be identified and targeted for additional support in the post-discharge phase. Nurse led services, web based and telephone support are particularly useful in this period.

### Conflicting priorities and needs

What emerges from the discussion is that a natural conflict exists between nurse and patient priority information needs among this population. There is agreement that pertinent topics; such as introduction to the CCU, diet, medication, physical activity, psychological factors, anatomy and physiology and

symptom management are important for patients to know about during their stay in CCU and during all phases of recovery. No study reported these as unimportant.

The conflict that emerges echoes Endacott (1997) findings. She highlighted the underlining 'central tension of perception of need' (emphasis authors own). She posed the question 'whose needs are they?', and further questioned whether needs are invalidated if the patient rather than the professional identifies them. Within the literature on patients with CHD further conflicts arise.

Scott and Thompson (2003), who examined the literature on the topic with a particular emphasis on the CPLNI, due to the consistency of its use, drew attention to several criticisms of this instrument and the knowledge that has developed as a result. They suggested that the use of a survey instrument designed and validated by health professionals provided a 'distorted view of patients' real concerns and priorities. They also noted an absence of patient involvement in the tool's development, suggesting that a new measurement tool should be devised based on systematic review, qualitative research and involvement of patients and experts in the area.

Notably absent from this review (Scott and Thompson, 2003) and others Mirka (1994), Wang (1994) and all studies that examined cardiac patient information/learning/educational needs using the CPLNI (Gerard and Peterson, 1984; Karlik and Yarcheski, 1987; Chan, 1990; Wingate, 1990; Ashton, 1997; Turton, 1998; Hughes, 2000) or other instruments (Casey *et al.*, 1984; Moynihan, 1984) was either an operational definition or simple explanation of the concept under scrutiny. While there is agreement that cardiac patients, in particular those with CHD, should have individualized teaching based on assessment of information/learning/educational needs, there is no clear explanation of precisely what this is. Despite the general agreement of the importance of these needs as the basis for individualized teaching, and the proliferation of literature on the topic, there is evidence that the concept is vague within the literature and that there is in fact, little agreement on a conceptual definition.

An exact definition of information needs is difficult to extrapolate from the literature with no clear definitions or consensus upon terminology emerging. In order to address the existent conflicts; namely whether information needs be solely patient or nurse derived or negotiated by both, the next logical step in knowledge development in this area is to further synthesize and derive meaning from the body of literature in this area by defining the critical attributes or essence of

information need through concept analysis. Using Rodgers' (2000) evolutionary approach to concept analysis, Timmins (2005b) recently provided greater clarity on this area, in order to more fully inform practice.

The sampled literature revealed a number of themes that enabled the identification of attributes. Analysis of the literature in the disciplines of nursing, medicine and education did not reveal an information need to be a gap or deficit in knowledge. The Oxford English Reference Dictionary definition: information (something told); need (to want); was more fitting to the analysis. Consistently, information needs referred to items that individuals wanted to be told about. Very often this manifested through questions posed to professional staff. These perceived needs were subjective and in contrast to an actual knowledge deficit that could be subjectively measured.

Information seeking behaviour occurred as a response to a stimulus that was perceived as either a challenge or a threat. The analysis revealed information seeking behaviour as a coping mechanism (Lazarus and Folkman, 1984). The provision of information by professionals was directed by a need to protect individuals from harm (anxiety, stress and worry) and to enhance their experiences in a positive way. Information need emerged as a patient expressed want or desire for information to be shared by professionals using appropriate communication skills to assist the individual to cope effectively with the challenge or threat, rather than to address an existent knowledge gap.

## CONCLUSION

The unique contribution of the hospital-based nurses to provide information, as part of a multi-disciplinary team, to the recovery phase following acute CHD events is not explicit. Indeed Scott and Thompson (2003) suggested that nurses themselves undervalue this role. Furthermore, although nurses are postulated to have clear role in information provision and education to patients (Orem 2001; Kiger, 2004) specific contributions of individual team members within the multi-disciplinary health care team or 'key providers' of education remain elusive (Skelton, 2001).

Nevertheless, typically, in a CCU, information giving usually focuses on orientation to the environment, explanation of procedures and explanation of the underlying condition (Jowett and Thompson, 2000). Once the acute phase of illness subsides, information concentrates upon improving the patient's understanding of their condition, physical recovery requirements and the important role that medication may play in their recovery (such as taking medication regularly and accurately) (Jowett and Thompson, 2000).

Improvement in lifestyle is another essential area of concern for nurses (Wiles and Kinmonth, 2001), as improvements to patient lifestyle can reduce their likelihood of further fatal events and enhance their well-being in general (De Backer *et al.*, 2003).

Empirical evidence exists suggesting that lifestyle modification and adherence to prescribed medications improves patient outcome (De Backer *et al.*, 2003). This predominant concern with educating patients about lifestyle and risk factor management resonates within the literature (De Backer *et al.*, 2003; Department of Health, 2004) and although valid, opposes current notions of patient centred and empowerment approaches to health. Skelton (2001) suggested that this 'medico-centred' model of education focuses on compliance, adherence, behaviour change, patient passivity, dependence and professionally determined needs. Whereas 'patient-centred' education encourages autonomy, patient participation, planning with patients and derives patients own needs (Skelton, 2001). Medico-centred education emerged as a priority in many studies that examined nurses' perception of CHD patient needs.

Although the nature of their condition and the short length of stay may negate against formalized education, this paper emphasizes the need to provide information to patients on a need to know basis. Although individualistic, certain trends and patterns emerge among patient groups and, given the consistent findings of previous studies on the topic, it would appear relevant to structure an information need assessment around the eight key areas (introduction to the CCU/ward, diet, medication, physical activity, psychological factors, anatomy and physiology and symptom management and miscellaneous) with incorporation of individual patient preferences and negotiation and agreement of patient and nurse priorities. This information may be backed up by written information or newer technologies (Skelton, 2001) and supported by nurse led services or telephone support where available (Hanssen *et al.*, 2005) study. Thus fundamental and basic information that can be delivered in the hospital can reinforced during later phases of recovery. Good nurse/patient communication is essential throughout the process (Timmins, 2005b). The primary focus of information giving is assisting the individual and family to cope with the very challenging events that hospital admission represents. The importance of this communication and negotiated information provision that challenges the patients understanding of events (Wiles and Kinmonth, 2001) cannot be underestimated to assist patients and their families to cope with the critical period of admission and subsequent recovery.

**WHAT IS KNOWN ABOUT THIS TOPIC**

- Cardiovascular disease is a major cause of death in the UK and accounts for 39% of all deaths (British Heart Foundation, 2004)
- New and improved service provision for patients with myocardial infarction have significantly altered the hospital experience for many including shorter hospital stays
- Patient centredness, needs assessment and patient empowerment are prevalent themes in current UK health policy
- Patients leaving hospital following acute coronary events often report information deficits

**WHAT THIS PAPER ADDS**

- It is highlighted within the paper that while clarity exists for many nurse roles in relation to the education of patients, following acute CHD events the potentially unique contribution of the hospital-based nurses to provide information; as part of a multi-disciplinary team to the recovery phase following is not explicit
- It is also identified that while there is a strong impetus in practice to provide information to patients on a need to know basis difficulties with this trajectory
- A new paradigm emerges in this area. Although traditionally positioned within an educative framework, the primary focus of information giving is assisting the individual and family to cope with the very challenging events that hospital admission represents

**REFERENCES**

- Alm-Roijer C, Stagmo M, Udén G, Erhardt L. (2004). Better knowledge improves adherence to lifestyle changes and medication in patients with coronary heart disease. *European Journal of Cardiovascular Nursing*; **3**: 321–330.
- Ashton KC. (1997). Perceived learning needs of men and women after myocardial infarction. *Journal of Cardiovascular Nursing*; **12**: 193–1100.
- Barbarowicz P, Nelson M, DeBusk MR, Haskell W. (1980). A comparison of in-hospital education approaches for coronary bypass patients. *Heart and Lung*; **9**: 127–133.
- British Heart Foundation. (2004). *Coronary Heart Disease Statistics: Factsheet*. London: British Heart Foundation.
- Casey E, O'Connell J, Price J. (1984). Perceptions of educational needs of patients after myocardial infarction. *Patient Education and Counselling*; **6**: 77–82.
- Chan V. (1990). Content areas for cardiac teaching: patients' perceptions of the importance of teaching content after myocardial infarction. *Journal of Advanced Nursing*; **15**: 1139–1145.
- Close A. (1988). Nurses need to become better patient educators. *Nurse Education Today*; **7**: 289–291.
- Czar M, Engler M. (1997). Perceived learning needs of patients with coronary artery disease using a questionnaire assessment tool. *Heart and Lung*; **26**: 2109–2117.
- De Backer G, Ambrosioni E, Borch-Johnsen K, Brotons C, Cifkova R, Dallongeville J, Ebrahim S, Faergeman O, Graham I, Mancia G, Manger Cats V, Orth-Gomér K, perk J, Pyörälä K, Rodicio JL, Sans S, Sansoy V, Sechtem U, Silber S, Thomsen T, Wood D. (2003). 'European guidelines on cardiovascular disease prevention in clinical practice'. *European Heart Journal*; **24**: 1601–1610.
- Department of Health. (2000). *National Service Framework for Coronary Heart Disease Modern Standards and Service Models*. London: The Stationery Office.
- Department of Health. (2004). *Winning the war on heart disease*. London: The Stationery Office.
- Endacott R. (1997). Clarifying the concept of need: a comparison of two approaches to concept analysis. *Journal of Advanced Nursing*; **25**: 471–476.
- Fletcher V. (1987). An individualized teaching programme following primary uncomplicated myocardial infarction. *Journal of Advanced Nursing*; **12**: 195–200.
- Gambling T. (2003). A qualitative study into the informational needs of coronary heart disease patients. *International Journal of Health Promotion and Education*; **41**: 68–76.
- Gerard P, Peterson L. (1984). Learning needs of cardiac patients. *Cardiovascular Nursing*; **20**: 7–11.
- Hanssen TA, Norderehaug JE, Hanestad BR. (2005). A qualitative study of the information needs of acute myocardial infarction patients, and their preferences for follow-up contact after discharge. *European Journal of Cardiovascular Nursing*; **4**: 37–44.
- Hughes M (2000). An instrument to assist nurses identify patients' self perceived informational needs post myocardial infarction. *All Ireland Journal of Nursing and Midwifery*; **1**: 113–117.
- Jaarsma T. (1999). Developing a supportive-educative program for patients with advanced heart failure within Orem's General Theory of Nursing in Jaarsma (1999). *Heart Failure: Nurses Care Effects of Education and Support by a Nurse on Self-Care, Resource Utilization and Quality of Life of Patients with Heart Failure*. Maastricht: Dadtwyse Maastricht.
- Jaarsma T, Halfens R, Senten M, Abu-Sad HH, Dracup K. (1998). Developing a supportive-educative program for patients with advanced heart failure within Orem's general theory of nursing. *Nursing Science Quarterly*; **11**: 79–85.
- Jaarsma T, Kastermans M, Dassen T, Philippen H. (1995). Problems of cardiac patients in early recovery. *Journal of Advanced Nursing*; **21**: 21–27.
- Jowett NI, Thompson DR. (2000). *Comprehensive Coronary Care*, 2nd edn. London: Baillière Tindall.
- Karlik BA, Yarcheski A. (1987). Learning needs of cardiac patients: a partial replication study. *Heart and Lung*; **16**: 544–551.
- Kiger A (2004). *Teaching for Health*. London: Churchill Livingstone.
- Knowles MS. (1989). *The Adult Learner: a Neglected Species*, 3rd edn. Houston: Gulf Publishing Co.
- Kristeller JL. (1999). 'Managing Smoking as a Risk Factor in Cardiac Disease: and educational, behavioral and pharmacologic perspective'. In: Rippe JM, (ed), *Lifestyle Medicine*. Oxon: Blackwell Science.
- Lazarus RS, Folkman S. (1984). *Stress, Appraisal and Coping*. New York, Broadway: Springer Publishing Co.
- Mclean S. (2005). Perceived information needs of spouses of patients suffering acute myocardial infarction Unpublished Conference. *Proceedings 24th Annual International Nursing and Midwifery Research Conference 23–25th March. Royal College Of Surgeons in Ireland, St. Stephens Green, Dublin 2.*

- McQueen DV, Anderson LM. (2003). What counts as evidence: issues and debates. In: Sidell M, Jones L, Katz J, Perberdy A, Douglas J, (eds), *Debates and Dilemmas in Promoting Health a Reader*. Hampshire: Palgrave Macmillan, 165–174.
- Milazzo A. (1980). A study of the difference in health knowledge gained through formal and informal teaching. *Heart and Lung*; **9**: 1079–1982.
- Mills G, Barnes R, Rodell DE, Terry L. (1985). An evaluation of an inpatient cardiac patient/family education program. *Heart and Lung*; **14**: 400–406.
- Mirka T. (1994). Meeting the learning needs of post myocardial infarction patients. *Nurse Education Today*; **14**: 448–456.
- Moynihhan M. (1984). Assessing the educational needs of post-myocardial infarction patients. *Nursing Clinics of North America*; **19**: 441–447.
- Mullen PD, Maims DA, Velez RV. (1992). A meta analysis of controlled trials of cardiac patient education. *Patient Education and Counseling*; **19**: 143–162.
- National Nursing and Midwifery Council (2004). *The NMC Code of Professional: Standards for Performance, Conduct and Ethics*. London: National Nursing and Midwifery Council.
- Orem DE. (2001). *Nursing: Concepts of Practice*, 6th edn. London: Mosby.
- Oterhals K, Hanssen TA, Eide GE, Hanestad BR. (2005). The relationship between in-hospital information and patient satisfaction after acute myocardial infarction. *European Journal of Cardiovascular Nursing*.
- Priest V, Speller V. (1991). *The Risk Factor Management Manual*. Oxford: Radcliff Press.
- Raleigh EH, Obtohan BC. (1987). The effect of a cardiac teaching program on patient rehabilitation. *Heart and Lung*; **16**: 311–337.
- Roebuck A, Furze G, Thompson DR. (2001). Health-related quality of life after myocardial infarction: an interview study. *Journal of Advanced Nursing*; **34**: 787–794.
- Rodgers B. (2000). Concept analysis: an evolutionary view. In: Rodgers B, Knafel KA (eds). *Concept development in Nursing*, 2nd edn. Philadelphia: W.B. Saunders, pp. 77–102.
- Rogers C. (1983). *Freedom to Learn for the 80s*. USA: Merrill Publishing Co.
- Scott JT, Thompson DR. (2003). Assessing the information needs of post-myocardial infarction patients: a systematic review. *Patient Education and Counseling*; **50**: 167–177.
- Sivarajan E, Newton K, Almes M, Kempf TM, Mansfield LW, Bruce RA. (1983). Limited effects of in patient teaching and counselling after myocardial infarction: a controlled study. *Heart and Lung*; **12**: 65–73.
- Skelton A. (2001). Evolution not revolution? The struggle for the recognition and development of patient education in the UK. *Patient Education and Counseling*; **44**: 23–27.
- Steele JM, Ruzicki D. (1987). An evaluation of the effectiveness of cardiac teaching during hospitalization. *Heart and Lung*; **16**: 306–311.
- Thomas R. (2001). Shared beliefs? *Nursing in Critical Care*; **6**: 293–296.
- Thompson D. (1990). *Counseling the Coronary Patient*. London: Scutari Press.
- Thompson DR, Ersser SJ, Webster R. (1995). The experiences of patients and their partners 1 month after a heart attack. *Journal of Advanced Nursing*; **22**: 707–714.
- Timmins F. (2005a). *Contemporary Issues in Coronary Care*. Nursing London: Routledge Press.
- Timmins F. (2005b). *Information Needs: Toward Theory, Conceptual Clarification and Application to Nursing Adults with Myocardial Infarction*. University of Glamorgan: Unpublished PhD Thesis.
- Timmins F, Kalisz M. (2003). Information needs of myocardial infarction patients. *European Journal of Cardiovascular Nursing*; **2**: 57–65.
- Turton J. (1998). Importance of information following myocardial infarction study of the perceived information needs of patients and their spouse/partner compared with perceptions of nursing staff. *Journal of Advanced Nursing*; **27**: 770–778.
- Wang WWT. (1994). The educational needs of myocardial infarction patients. *Progress in Cardiovascular Nursing*; **9**: 28–36.
- Webster RA, Thompson DR, Mayou RA. (2002). The experiences and needs of Gujarati Hindu patients and partners in the first month after a myocardial infarction. *European Journal of Cardiovascular Nursing*; **1**: 69–76.
- Wiles R, Kinmonth AL. (2001). Patients' understanding of heart attack: implications for prevention of recurrence. *Patient Education and Counseling*; **44**: 161–169.
- Williams D. (1999). Nursing Assessment. In: Jairath N (ed.), *Coronary Heart Disease & Risk Factor Management: A Nursing Perspective*. London: W.B. Saunders Company.
- Wingate S. (1990). Post MI patients' perception of their learning needs. *Dimensions of Critical Care Nursing*; **2**: 112–118.
- World Health Organization. (1985). *Health for All Targets: the Health Policy for Europe*. Copenhagen: WHO Regional Office for Europe.
- World Health Organization. (1991). *WHO in Europe 1991*. Denmark: Regional Office for Europe.



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