



Health-care professionals' knowledge, attitudes and behaviours relating to patient capacity to consent to treatment: An integrative review

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Abstract

This integrative review aims to provide a synthesis of research findings of health-care professionals' knowledge, attitudes and behaviours relating to patient capacity to consent to or refuse treatment within the general hospital setting. Search strategies included relevant health databases, hand searching of key journals, 'snowballing' and expert recommendations. The review identified various knowledge gaps and attitudinal dispositions of health-care professionals, which influence their behaviours and decision-making in relation to capacity to consent processes. The findings suggest that there is tension between legal, ethical and professional standards relating to the assessment of capacity and consent within health care. Legislation and policy guidance concerning capacity assessment processes are lacking, and this may contribute to inconsistencies in practice.

Keywords

Mental capacity, competence, informed consent, treatment refusal, health knowledge, attitudes, practice

Introduction

Inadequate attention to ethical, professional and legal responsibilities with regard to consent to treatment or decision-making within generalist health care could lead to claims of infringements of human rights such as autonomous decision-making or freedom of movement. These infringements could also result in actions in battery and false imprisonment; negligence and subsequent malpractice suits and potential awards of damages, loss of employment or professional deregistration.¹ One arena where such infringements are

highlighted is when issues of patients' capacity to consent to treatment are not recognised or at best are poorly understood.

It has been proposed that postgraduate education and training within medicine has neglected the areas of ethical, professional and legal responsibilities in relation to treatment consent within clinical practice.² Arguably, these responsibilities are not exclusive to medicine, and as a consequence, all nursing, medical and allied health-care professionals (HCPs) have a responsibility to be familiar with issues regarding mental capacity, consent and the legal frameworks that accompany decision-making within health care.

Mental capacity has been argued to be the key component of consent to treatment,³ and its link to autonomy has emerged as a central component of health-care law.⁴ Patient autonomy or self-determination is described as a fundamental human right of legal and ethical principle, which supports the right to make informed choices, even if such choices conflict with medical advice or may be likely to result in death. All HCPs are responsible for ensuring patients have the capacity to consent to or refuse treatment,⁵ although in reality, not all HCPs will undertake this requirement. Capacity should be of significant concern within health care, as a finding of incapacity is a vehicle for the removal of many of an individual's fundamental rights.⁶ Furthermore, consent obtained from a person who does not have capacity is not valid.⁵

Defining capacity/competence

Two concepts that centrally determine whether a person may make informed choices regarding health issues are 'capacity' and 'competence'.⁷ The terms capacity and competence are often used interchangeably in health-care practice and literature to refer to the same concept,⁴ despite the fact that although they are clearly interrelated, they are not entirely synonymous.⁷ This interchange is also frequently observed as reported within the health-care literature.⁸⁻¹⁰ World Health Organization (WHO) states that capacity relates to the presence of mental abilities to make decisions or to engage in a course of action, while competence refers to the legal judgement of the individual's mental capacity. Thus, the distinction has been made that competence is technically a legal outcome, determined by judges, while capacity is a health outcome determined by clinicians.^{6,11} These two areas converge when the legal profession may seek the opinions of health professionals in determining competence.¹² Capacity outcomes generally differ from competence outcomes as capacity refers to a specific decision as opposed to a 'global' determination of one's competence.¹³ The term capacity or capacity assessment has been used in this review as the included studies relate to clinical decision-making within the health context, rather than a legal assessment of a patient's ability to make decisions.

An understanding of knowledge, attitudes and behaviours of HCPs in relation to the assessment of capacity to consent to or refuse treatment is a suggested starting point to assess practice in relation to their compliance with legislation, common law and health service policy related to this topic.

HCPs' knowledge, attitudes and behaviours

The relationship between knowledge, attitudes and behaviours has long been the subject of research interest, with attitudinal disposition being widely perceived to be the precursor to actual behaviours.¹⁴⁻¹⁶ Attitudes, values and behaviours have also been reported as being central to the professional development concepts of professionalisation, professional socialisation and professionalism [sic].¹⁷ Professional socialisation has been reported elsewhere as incorporating the 'knowledge, skills, attitudes, values, norms, and interests' required by individuals to adequately perform their professional roles (p. 2).¹⁸ It is therefore important to explore and develop an understanding not only of the knowledge that HCPs in the general hospital settings have but also of any favourable or unfavourable attitudes, which may be present, and their influence on actual or future behaviours in relation to capacity assessment and consent to treatment processes.

Aim

This integrative review aims to provide a synthesis of research findings of HCPs' knowledge, attitudes and behaviours relating to patient capacity to consent to or refuse treatment within the general hospital setting. Specifically, it will examine the following:

1. HCPs' legal, ethical or professional knowledge or their deficits in relation to capacity to consent to or refuse treatment;
2. HCPs' favourable or unfavourable attitudes in relation to capacity to consent to or refuse treatment; and
3. HCPs' behaviours in exercising relevant legal, ethical and professional responsibilities in relation to capacity to consent to or refuse treatment.

Review method

Search strategy

The primary search strategy included key relevant health databases (Medline, PsycINFO, Embase, CINAHL and Scopus), using the following search terms: Informed Consent, Mental Competency, Treatment Refusal, Attitude of Health Personnel, Health Knowledge Attitudes Practice. Additional search strategies included hand searching of key journals relevant to the topic, 'snowballing' through the use of references in the primary studies and review papers and expert recommendations. The search was limited to English language and peer-reviewed journals and the years between January 1990 and December 2010.

Inclusion and exclusion criteria

Empirical studies that examined HCPs' knowledge, attitudes or behaviours in relation to patient capacity to consent to or refuse treatment within the context of the general hospital setting were considered for this review. Capacity is regarded as the key component of consent to treatment and is central to the principle of autonomy and self-determination; therefore, studies that focussed broadly on consent to treatment or ethical issues were also considered within this review as mental capacity may have been a feature of the evaluation. Articles were excluded if the studies were conducted in the context of primary or community care, psychiatry, paediatrics, gynaecology or obstetrics specialties. As the scope of the review was limited to consent for treatment or care recommended by HCPs, articles were also excluded if they related to 'not for resuscitation orders', as treatment (resuscitation) is considered to be undesirable or 'futile',¹⁹ and 'end of life' issues or euthanasia, which are distinct areas of research in their own right.

Screening and data extraction

The initial search yielded 1092 articles. The titles and abstracts (where available) of articles retrieved from this initial search were perused and assessed against the inclusion criteria to identify publications that broadly related to mental capacity and/or assessment or consent to treatment. The screening process was adapted from the process outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement for reporting of systematic reviews.²⁰ Figure 1 outlines the full search and screening process that underpinned the review. The data extraction process began once the final 23 articles were determined for inclusion, and it involved summarising the following information, as given in Table 1: study aims/objectives, methods, evidence rating, participants and setting and capacity findings (either within design or as a result of evaluation).

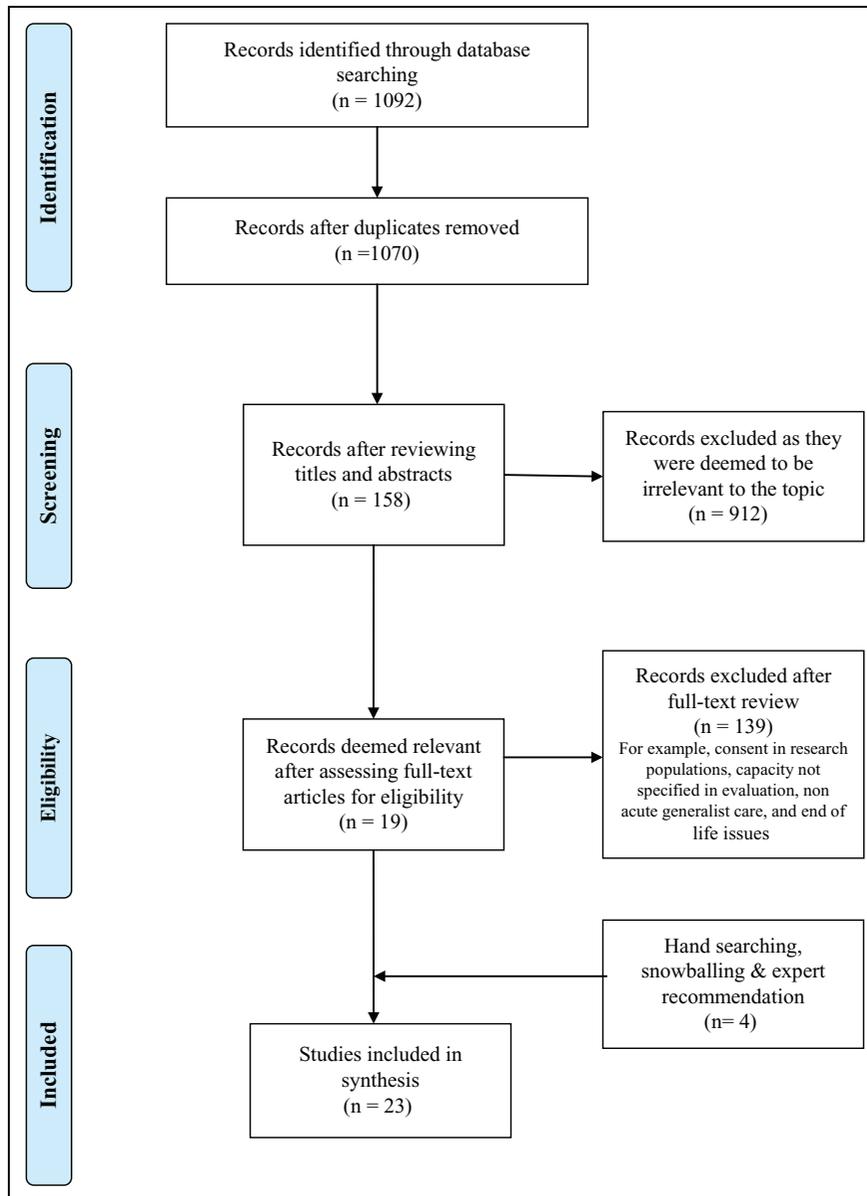


Figure 1. Flowchart of search and screening process.

Source: Moher et al.²⁰

Appraisal of study quality

While there is no clear consensus on concomitantly appraising the methodological quality of diverse methods included in a systematic review, recent guidance has emerged: the Mixed Methods Appraisal Tool (MMAT).³⁹ The MMAT 2011 version⁴⁰ was used within this integrative review for its utility within mixed

Table 1. Health-care professional studies exploring knowledge, attitudes and behaviours

| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|---------------------------------------|--|---|----------------------|---|--|
| Jamjoom et al. ⁴⁵ UK | Describe observations of attitudes of medical professionals to issues surrounding informed consent | 35-item questionnaire cross-sectional survey | 100% | N = 148 anaesthetists and surgeons from three general hospitals | 79% agreed that main purpose of consent was to respect autonomy; 55% agreed that the consent process may be inappropriate as most patients do not usually remember information; 22% of surgeons and 18% of anaesthetists agreed that patients trust doctors to decide what is best for them. |
| McKneally et al. ⁴⁷ Canada | Describe the experiences and beliefs about informed decision-making and consent | Open-ended interviews and focus group discussions | 100% | N = 28 thoracic and N = 18 general surgical specialists | Surgeons discussed wide variation in patients' level of understanding despite extensive and exhaustive disclosure, and their mental and emotional capacity to make decisions regarding their care. They also recognised that frightened patients with life-threatening illnesses seemed incapable of making an objective evaluation. |

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Table 1. (continued)

| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|--|---|--|----------------------|---|---|
| Evans et al. ²¹ UK | Assess knowledge of capacity and consent in emergency health-care workers | 4-item questionnaire cross-sectional survey | 100% | N = 86 (42 A&E doctors, 21 A&E nurses and 23 ambulance staff) | 67% and 10% of doctors and nurses, respectively, gave correct answers on criteria for assessing capacity to consent to or refuse treatment. However, none of the ambulance workers answered this correctly. 15% (10% doctors, 33% nurses, 9% ambulance) of all respondents wrongly believed that an adult who is found to have capacity can lawfully be treated against his or her will. 33% of all respondents wrongly answered questions on substitute consent by relatives and using the mental health act to treat someone with mental disorder for a physical illness when refusing treatment. |
| Yousuf et al. ²² Malaysia and India | Evaluate the perceptions and practices of attending medical professionals in matters relating to informed consent | 35-item questionnaire cross-sectional survey | 100% | N = 98 doctors (50 in Malaysia, 48 in India) employed at two major teaching hospitals | Reasonable physician standard model for informed consent is the predominant choice for obtaining consent. Only 85% at one site (India) regularly obtained consent. Age, literacy and mental status considered important factors in the ability to consent. 40% (Malaysia) versus 36% (India) believed that informed consent is valid despite a patient's fluctuating decision-making capacity. In event of patient refusing treatment, 74% versus 77% would seek surrogate consent, 2% versus 17% would seek implied consent and 24% versus 6% would withhold procedure. 73% versus 80% considered intervention without consent justified if life saving in nature. |

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Table 1. (continued)

| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|---|---|--|----------------------|---|---|
| Mullaly et al. ²³ Australia | Identify common practices in the assessment of decision-making capacity of neuropsychologists | Cross-sectional e-mail-based survey | 100% | N = 52 current practicing neuropsychologists | Most neuropsychologists use combination of formal standardised assessment and informal interview. Likely, completion time is 6–8 h (39%) and >8 h (35%). Most neuropsychologists felt poorly prepared by their training to undertake decision-making capacity assessments and more than half rated it as time-consuming, stressful and difficult. |
| Aveyard and Woolliams ²⁴ UK | Report qualitative data exploring how nurses obtain consent prior to nursing procedures | In-depth interviews focussing on critical incident technique inquiry | 100% | N = 30 general medical ward nurses | Major theme to emerge was nurses' discomfort at administering sedation to patients who lacked capacity to consent. Nurses lacked knowledge of when it may be appropriate to give sedation to patients who cannot consent in the context of relevant legal and ethical guidance. |
| Atac et al. ²⁵ Turkey | Examine the opinions and self-reported behaviours of physicians regarding the issues of informed consent and refusing treatment | Cross-sectional questionnaire survey | 100% | N = 51 internal medicine and surgical physicians at a training hospital | 86.3% supported the right of competent patients to refuse treatment. However, physicians also had doubts about the comprehension patients had about the information disclosed about their treatment. |
| Aveyard ²⁶ UK | Examine how consent is obtained prior to nursing care procedures | Focus group discussion informed by critical incident technique | 100% | 6 focus groups of between 6 and 12 general medical ward nurses (N = 50) | Some nurses reported that patients were denied the right to refuse care and had unwanted care imposed upon them using either persuasion or pressure. Some nurses were uneasy about administering care to patients who could not consent and reported being subject to inappropriate influence by relatives. |

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Table 1. (continued)

| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|--|--|--|----------------------|--|--|
| Henson and Vickery ²⁷ UK | Identify the number of patients who take their own discharge and determine how their competence to refuse treatment was being assessed | Pre- and post-intervention medical file audit of all self-discharge patients | 75% | N = 55 emergency department patients files in first audit and N = 56 emergency department patients files in second audit | Patients who self-discharged and who 'did not wait' represented 0.5% and 11%, respectively, of all attendees during study period (3 months). In the first audit, assessment of capacity to refuse treatment was documented in 0% of the medical files. In the second audit, assessment of capacity to refuse treatment was documented in 82%. |
| Jafarey and Farooqui ²⁸ Pakistan | Evaluate how physicians approach issues of informed consent within their clinical practice | Focus group discussions, in-depth individual interviews and informal discussions | 75% | N = 10–12 physicians from various specialties in each focus group. Does not specify how many focus groups took place. | A major theme to emerge from qualitative inquiry was factors adversely affecting the consent process. Most physicians perceived that a lack of intelligence or illiteracy negatively influenced capacity and the consent process. However, they believed that this could be overcome by spending more time with these patients. |
| Roberts et al. ²⁹ USA | Assess the perspectives of physicians in training across different levels regarding level of curricular attention needed for bioethics concepts, practical informed consent considerations and care of special populations | Hypothesis-driven 124-item cross-sectional survey | 100% | N = 336 medical students and residents at university school of medicine | Trainees indicated need for more attention to all bioethics principles (most: respect for human dignity; least: justice, truth-telling, scientific integrity and respecting the law). Trainees indicated need for more attention to all issues pertaining to informed consent (most: obtaining consent from patients with compromised capacity, surrogate decision-makers, non-English-speaking patients and patients declining treatment; least: deciding how much information to share with capable patients). |

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| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|---|--|---|----------------------|---|--|
| Sypher et al. ³⁰ USA | Assess the attitudes of physicians with respect to participation of patients and family members in medical decisions | Closed questions instrument cross-sectional survey | 50% | N = 90 physicians specialising in family practice and internal medicine based at two university schools of medicine | Although physicians surveyed showed respect for patient autonomy and the primary elements of informed consent and supported stronger patients' rights, many respondents revealed a willingness to override the explicit predetermined directives of patients following a loss of capacity, based on the requests of surrogates. Most of the physicians (86%) felt that patients were generally not able to fully understand information provided. Half the male and a third of female respondents felt that the need to obtain informed consent could be abandoned when patients were unable to understand information. Some respondents emphasised respecting patient autonomy, while others put the medical benefits that could be achieved first. |
| Agard et al. ³¹ Sweden | Determine how physicians, involved in including patients in intervention trials following acute myocardial infarction, experienced the informed consent procedures | Cross-sectional questionnaire-based survey | 100% | N = 544 cardiology physicians | Only 22.9% of patients' charts included any comment with respect to evaluation of patient competency. 34.3% of patients had some prior indication of the DAMA, such as threatening to leave or significant staff conflict. |
| Seaborn Moyses and Osmun ³² Canada | Understand the characteristics of patients who leave hospital against medical advice (DAMA) and to evaluate chart documentation pertaining to discharge | Retrospective chart audit of all DAMA patients over 2-year period | 75% | N = 35 general hospital patient DAMA | |

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Table 1. (continued)

| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|---|---|---|----------------------|---|--|
| Ersoy and Gündoğmus ³³ Turkey | Determine the attitudes of physicians when placed in ethically difficult care situations | Cross-sectional four-case scenario-based survey | 75% | N = 207 hospital and primary care centre-based doctors | Participants had low sensitivity to living wills and refusing treatment and also failed to express adequate sensitivity to patients who were incompetent or thought to be incompetent. |
| Ganzini et al. ³⁴ USA | Rate the frequency of selected pitfalls (difficulties, misconceptions, misunderstandings and knowledge deficits) in health-care practitioners who refer patients for assessment of decision-making capacity | 23-item cross-sectional survey | 75% | N = 335 psychosomatic medicine psychiatrists, N = 264 geriatricians and N = 276 geriatric psychologists from relevant professional associations | Respondents perceived that misunderstandings and knowledge deficits about the assessment of decision-making capacity are common. Of the 23 potential capacity pitfalls presented, 22 of these were rated as common by more than half of the respondents and the majority were rated as somewhat important. The area of capacity assessment that respondents rated most important for educating health-care professionals was that decision-making capacity is context- and decision-specific. Other deficits identified were that of a failure to recognise that compliant patients may lack capacity and that more weight should be given to the processes that lead to medical decision-making than the final decision itself. |

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| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|--|--|--|----------------------|---|---|
| Jackson and Warner ³⁵ UK | Assess knowledge of capacity issues across different medical specialities | 8-item structured questionnaire cross-sectional survey | 100% | N = 129 general practitioners, psychiatrists, geriatricians and final-year medical students | 18 psychiatrists (58%) were correct in knowledge regarding capacity to consent to or refuse treatment, compared with 10 geriatricians (34%), 7 general practitioners (20%) and 5 students (15%) ($p = 0.001$). 15% of all respondents wrongly believed that a competent adult could lawfully be treated against their will, with no obvious differences between specialities. 19% of all respondents wrongly believed that the mental health act can be used to treat physical illness, when someone with a mental disorder refuses treatment. Nurses were not sensitive where the right to refuse treatment was concerned, suggesting nurses may have a tendency towards paternalistic attitudes as opposed to upholding patient autonomy. Nurses working in surgical wards were more prone to act in a paternalistic manner. Only 10.3% of nurses stated that the right to refuse treatment should be respected, and 31.6% stated that they would not lie or manipulate the truth. 53% of respondents agreed or strongly agreed (5-point Likert scale) that enough pain medication to allow a patient to be comfortable precluded the patient from being capable of signing a legally binding informed consent form. Only 34% believed that such a patient could give legally binding informed consent. |
| Ersoy and Göz ³⁶ Turkey | Understand the ethical sensitivity (and ethical knowledge) of nurses working at the bedside | Cross-sectional four-case scenario-based survey | 75% | N = 165 general hospital 'bedside' nurses | |
| Graber et al. ³⁷ USA | Determine general surgeons' beliefs about the use of analgesics in the acute abdomen and their effects on informed consent | Cross-sectional mailed questionnaire | 100% | N = 131 general surgeons | |

Table 1. (continued)

| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|---------------------------------|---|--|----------------------|--|--|
| Hipshman ⁴⁴ Zimbabwe | Explore medical students' (from non-Western culture) attitudes towards informed consent, confidentiality and substitute treatment decisions | 55-item questionnaire cross-sectional survey | 100% | N = 169 medical students from each of five medical school years at university school of medicine | Treatment consent (decision-making capacity or competence): students not able to agree or disagree that a doctor should refrain from initiating treatment until guardian appointed, if patient appeared to lack capacity. Students strongly disagreed that people with mental illness could not make decisions. Non-black students were less likely to endorse this notion. Students agreed that a person is not lacking in capacity per se, purely on the basis of disagreeing with medical decisions. Treatment consent (coercion): nearly all students agreed that true consent requires decisions to be free from coercion. Students strongly disagreed that a marginally competent person's expressed assent should be accepted as valid consent. Students strongly agreed that doctors should be able to access a judge or review panel to determine how to proceed when unsure of capacity. |

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| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|---------------------------------|---|--------------------------------|----------------------|---|---|
| Srinivasan ⁴³ Canada | Examine medical students' communication skills and competence regarding informed consent during an objective structured clinical examination (OSCE) | Descriptive quantitative study | 100% | N = 22 (12 male, 10 female) medical students, having completed 12-month postgraduate training and knowledge-based examination | Organic factors, such as dementia, were not considered to influence patient's decision-making capacity. Only a few candidates discussed concerns regarding consent for previous treatment or surgery and reasons for consent or refusal on these occasions. Only a third of candidates were able to deal with the patient's refusal of the treatment in a holistic or empathic manner. 20% of the candidates were biased, paternalistic and approached treatment situations using ultimatums. |
| Vincent ⁴⁶ Europe | Determine current practices and views of European intensive-care doctors regarding communication with patients and informed consent for interventions | Cross-sectional survey | 75% | N = 504 Western European doctor members of European Society of Intensive Care Medicine | 75% would accept the right of a patient to refuse treatment, but 19% would carry out procedures against patients' wishes. Males more likely than females to accept treatment refusal and doctors with a Protestant background more likely than doctors from a Catholic background to accept this refusal. British doctors significantly more likely than doctors from Greece to accept treatment refusal. |

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Table 1. (continued)

| Author and country | Aim/objective | Methods | MMAT evidence rating | Participants and setting | Capacity findings |
|-----------------------|---|---|----------------------|---|---|
| Kent ³⁸ UK | Examine situations in which doctors have difficulty in obtaining informed consent and ascertaining their views of the issues involved | Cross-sectional mailed open-ended questionnaire | 75% | N = 68 doctors of varying grades in psychiatry, obstetrics/gynaecology and surgery (70 in each specialty) | Treatment refusal, perceived patient incompetence, language difficulties and emergencies form the majority of difficult situations in obtaining informed consent. Only 18% had received formal training in obtaining informed consent. Three-quarters of respondents indicated that the provision of information to patients and their understanding of this were necessary for consent, but less than one-third mentioned competence and voluntariness as equally important aspects. |

A&E: accident and emergency; DAMA: discharges against medical advice.
MMAT: Mixed Methods Appraisal Tool.³⁹

methods research. As this is a broad integrative review, the tool was not used to exclude studies; rather, it was used to describe and, where appropriate, critique the methodological quality of the studies examined.

Data analysis and synthesis

This process began once the final 23 articles were determined for inclusion, which had been verified by the second and third authors, and involved summarising characteristics of the identified papers (e.g. study aims/objectives, methodology, evidence rating, sample, size and setting and main findings; whether capacity was identified either within design or as result of evaluation) as shown in Table 1. Methods of analysis designed to apply to mixed methods or qualitative research are particularly recommended when conducting an integrative review.⁴¹ A combination of thematic analysis and constant comparative analysis was undertaken to guide the analysis and synthesis process of this review.⁴² Relevant categories and patterns identified from the data were subsequently mapped to the research questions.

Results

Overview of search results

Table 1 provides a summary of the 23 studies that addressed HCPs' knowledge, attitudes and behaviours in relation to patient capacity to consent to or refuse treatment. Only five of these studies exclusively explored capacity.^{21,23,27,34,35} In most cases, capacity was one aspect of a broader study objective or a feature of the evaluation from a related topic. The findings described in Table 1 focus only on the capacity aspect from these studies.

Of the 23 studies, over half of them ($n = 14$) were from the United Kingdom and North America. Participants within the studies were primarily from the medical profession (some of which involved trainees), with nurses being represented in only four of the studies. Psychologists were represented in two studies, with ambulance workers and anaesthetists being represented in one study each respectively. The studies were predominantly cross-sectional ($n = 16$) in design, employing questionnaires and surveys, with four using qualitative approaches. The qualitative studies involved mainly focus groups and interviews.

For the purpose of this review, knowledge findings are distinguished from attitudinal findings in that they are measurable against predetermined legal criteria or professional consensus, whereas attitudinal findings incorporate values, beliefs, feelings, perceptions or dispositions, which are not measurable against similar predetermined criteria per se, as they may be context dependent. Behaviour findings incorporate self-reported or observed behaviours.

HCPs' knowledge of consent to treatment-related capacity

A study involving HCPs (psychosomatic medicine psychiatrists, geriatricians and geriatric psychologists) regularly involved in the evaluation of decision-making capacity found many reported misunderstandings and knowledge deficits among generalist HCPs, relating to capacity.³⁴ The most commonly reported knowledge deficit was a lack of understanding among generalist HCPs that capacity may be present for some medical decisions but not for others, which thus is decision and context specific.³⁴ Other common misunderstandings and knowledge deficits reported within this study relate to a failure of HCPs to consider that acquiescing patients may lack capacity and that HCPs often wrongly attach greater weight to a patient's final medical decision than to the process that led to that decision.³⁴

In terms of legal knowledge, two UK studies examined the level of knowledge of HCPs in relation to the *Re C* test (*adult: refusal of medical treatment* (1994) 1 All ER 819) for assessing capacity to consent to

or refuse treatment. This test was the relevant legal criterion for assessing capacity in respect of the participants under study and related to a patient with a diagnosis of paranoid schizophrenia successfully having his refusal to have a gangrenous foot amputated upheld in the English High Court, despite concern that he could die if surgery were not pursued. Despite the presence of a diagnosable chronic and enduring mental disorder, it was held that he had the capacity for making that specific decision. Mr C conveyed that he would rather die with two feet than survive with one. The three criteria require that patients are required to comprehend and retain information, believe it and weigh it up in order to make a choice. When asked to provide two of the three criteria for satisfying capacity as set out in *Re C*, significant numbers of HCPs across different specialties could not satisfy a general understanding of capacity criteria. For example, in one study of 129 HCPs, 42% of psychiatrists (n = 13), 66% of geriatricians (n = 19), 80% of general practitioners (n = 28) and 85% of medical students (n = 29) could not satisfy two of the three criteria.³⁵ In a second study involving 86 HCPs, 33% of doctors (n = 14), 90% of nurses (n = 19) and 100% of ambulance workers (n = 23) from an emergency department could not satisfy two of the three criteria.²¹ Of the study participants, 19% (n = 25)³⁵ and 33% (n = 28)²¹ were incorrect in their belief that mental health legislation could be used to treat someone with mental disorder for a physical illness when refusing treatment. The latter study also highlighted that 33% of participants (n = 28) were incorrect in their belief that it was legally necessary to have a relative sign a consent form when someone was incapable of doing so themselves.²¹

The issue of treating patients who refused or were perceived to be incapable of consenting also featured in knowledge deficits. During in-depth interviews, nurses in a UK study were found to lack the requisite knowledge of legal and ethical principles when caring for confused or agitated patients perceived incapable of consenting.²⁴ The studies by Evans et al.²¹ (n = 86) and Jackson and Warner³⁵ (n = 129) found that 15% of all respondents in both studies were incorrect in their belief that a person with capacity could be lawfully treated against their will. This percentage was highest for nurses²¹ and psychiatrists³⁵ in the respective studies. In two studies that explored issues relating to valid consent, the presence of capacity was not recognised as a requisite of a legally valid consent by one-third of psychiatry, obstetrician/gynaecology and surgeon respondents in the United Kingdom,³⁸ and a fluctuating capacity was not recognised as something that could compromise a valid consent in a study of doctors from Malaysia and India (40% (n = 20) and 36% (n = 17), respectively).²²

The lack of undergraduate training and/or postgraduate education in a variety of areas related to capacity and consent across a range of specialties is a notable finding from this review. Studies involving medical students in Canada,⁴³ specialist health professionals in the United States³⁴ and emergency department staff in the United Kingdom²¹ all identified the need for education and training in the assessment of capacity for generalist HCPs. Specific training needs relating to medico-legal decision-making processes⁴⁴ and the influence that organic factors such as dementia could have on decision-making processes⁴³ were identified in studies involving medical students. Further studies involving medical students identified a need for training in circumstances where capacity was believed to be compromised or treatment refusal was present.^{21,29} The latter study in the United States, involving 336 medical students and residents, also identified a specific need for training in the role of surrogate decision-makers.²⁹ Despite a specific major component of their role being the assessment of decision-making capacity, most neuropsychologist respondents in one study felt poorly prepared by their training to undertake decision-making capacity assessments.²³

HCPs' attitudinal dispositions relating to capacity and consent

Despite many physicians showing favourable attitudes towards the principle of autonomy, paternalistic attitudes were identified in a number of studies that explored compromised capacity across a range of professional groups and clinical specialties. For example, in a UK study, 18% of anaesthetists (n = 16) and 22% of surgeons (n = 13) believed that patients trusted doctors to do what was best for them,⁴⁵ and 37% of

cardiology physicians in a Swedish study agreed that the medical benefits of an intervention came first.³¹ Almost half of the family practice and internal medicine physicians in one US study reported that they would override the explicit previously expressed wishes of a patient who no longer retained capacity at the request of a family surrogate decision-maker (40.2%, $n = 36$) or for purely paternalistic reasons (5.7%, $n = 5$).³⁰ Support for the reasonable physician standard of consent, which allows physicians to decide what information is appropriate to disclose, as opposed to an autonomous patient model (42% ($n = 21$) of Malaysian and 65% ($n = 31$) of Indian doctors in the study), and for suspending autonomous consent to treatment processes in life-saving situations (76% ($n = 38$) of Malaysian and 83% ($n = 33$) of Indian doctors in the study) indicated that attitudinal paternalism was strong among participants.²²

Perceived patient incapacity and treatment refusal were identified by HCPs across a range of medical specialties in one study as the most common situations in which gaining consent was problematic.³⁸ Two studies from Turkey identified that 83.6% ($n = 179$) of physicians and 58.1% ($n = 96$) of nurses, respectively, would override the previously expressed wishes of a patient with capacity following a loss of consciousness,³³ or would lie or manipulate the truth for the sake of a patient's well-being, when presented with a scenario of a patient refusing treatment based on religious grounds.³⁶ Carrying out treatment despite a patient's expressed wishes to do otherwise was found to be supported by 19% ($n = 96$) of intensive-care physicians in a European study⁴⁶ and 13.7% ($n = 28$) of medical and surgical physicians in a Turkish study.²⁵ Qualitative findings involving nurses in a UK study also indicated a low acceptance of allowing patients to refuse care, when such care was perceived to be in a patient's 'best interest'.²⁶ Conversely, considerable unease was expressed by all the nurse participants ($n = 30$) in the same study when discussing administering sedation to patients who lacked capacity to consent.²⁴ Positive attitudinal dispositions were identified in a study of medical students in Zimbabwe.⁴⁴ These dispositions related to support for the notions that patients do not lack capacity per se when disagreeing with medical decisions (89%, $n = 150$) and that true consent should be free from coercion (92%, $n = 155$). Similarly, the students showed little support for the notion that agreement from a patient with marginal capacity could be considered as a valid consent (13%, $n = 22$).⁴⁴

Attitudes regarding patient factors, such as age, literacy and mental status, and their influence on capacity assessment and the consent process were prominent in this review. When patients were known to be older than 18 years, literate and with an uncompromised mental status, HCPs tended to determine that the patients had capacity to consent to or refuse treatment.²² Conversely, illiteracy and a lack of intelligence were perceived to be factors that would negatively influence a patient's capacity to consent.²⁸ The capacity for patients with acute medical illnesses to comprehend and retain information was identified as problematic in studies involving cardiology physicians in Sweden,³¹ medical and surgical physicians in Turkey²⁵ and thoracic and general surgical specialists in Canada.⁴⁷ This issue of patients being unable to retain or comprehend relevant information has been supported elsewhere despite extensive disclosure to and engagement with patients about their treatment.^{25,47} Furthermore, over half (55%, $n = 81$) of the anaesthetist and surgeon respondents in one study agreed that consent processes may be inappropriate altogether as a result of patients being incapable of remembering all the information given to them,⁴⁵ and elsewhere, 53% of surgeons ($n = 70$) concurred that administering enough pain medication to allow a patient to be comfortable precluded them being capable of providing a legally valid consent.³⁷

HCPs' disciplinary, sociocultural, religious and demographic factors were highlighted within study findings as potentially influencing their attitudes and perceived behaviours in relation to capacity and consent. Specialty differences among 'bedside' hospital nurses were identified, in that nurses in surgical settings were more likely to work in a paternalistic manner than nurses from other specialty areas such as medical settings.³⁶ Attitudinal differences in a study of medical students in Zimbabwe indicated that students in general strongly disagreed with the proposition that people with mental illness or mental retardation lacked decision-making capacity.⁴⁴ In this same study, independent variable analysis of students' responses

identified that non-black students were less likely to endorse this notion for those persons with mental illness.⁴⁴ A European study involving intensive-care physicians from 16 western European countries (n = 504) found statistically significant attitudinal differences among participants, relating to geographic location, religious background and gender.⁴⁶ For example, physicians from the United Kingdom were significantly more likely to accept treatment refusal than physicians from Greece (96%, n = 46 vs 33%, n = 7; p < 0.01); physicians from a Protestant background were more likely to accept treatment refusal than physicians from a Catholic background (88%, n = 106 vs 70%, n = 158; p < 0.01) and males were significantly more likely to accept treatment refusal than females (77%, n = 336 vs 60%, n = 40; p < 0.01).⁴⁶ Gender differences were also highlighted in the study of Swedish cardiology physicians, where conversely, males were more likely than females to support abandoning informed consent processes when patients were perceived to be unable to understand information about treatment.³¹

HCPs' behaviours surrounding consent to treatment-related capacity

Poor documentation of capacity in patients who self-discharged against medical advice was found in two retrospective audit studies. Documentation relating to capacity to refuse treatment was found for only 22.9% (n = 8) of all discharges against medical advice (DAMA) patients from a general hospital in Canada over a 2-year period³² and for 0% of all patients who self-discharged or 'did not wait' (n = 55) in an emergency department in the United Kingdom.²⁷ Documentation of capacity in the latter study improved (82% (n = 56) of discharges) at 3 months post intervention, following the introduction of a comprehensive self-discharge form that specifically incorporated capacity to consent to or refuse treatment.²⁷

Self-reported HCPs' behaviours included the withholding of recommended care and inconsistency in obtaining informed consent. For example, nursing staff in a UK study highlighted that they had withheld necessary prescribed medical care in patients who could not consent due to patients' relatives disagreeing with the treatment.²⁶ A study involving doctors from India identified that only 85% (n = 41) of participants regularly obtained consent from patients for recommended treatment.²² Observation of medical students also identified that almost one-quarter (n = 4) of participants responded to treatment refusal in a paternalistic manner using ultimatums during simulated patient consultations, with only a few of the students discussing concerns regarding consent for previous treatment or surgery and the reasons for consent or refusal on these occasions.⁴³

Discussion

The need for continuing education and training

The review identified a gap in educational preparation and continuing education relating to ethical issues, capacity and its relationship to a valid consent. HCPs require the requisite knowledge of relevant legal, ethical and professional standards of practice in relation to capacity and consent. Not only could this preserve and promote the individual rights of patients but it may also prevent and minimise potential claims of battery, false imprisonment or negligence, and/or loss of employment and professional deregistration. Despite the adequate evaluation of patient capacity being a key requirement for all HCPs delivering routine health-care interventions,⁴⁸ knowledge gaps have been identified across various specialties and disciplines in areas related to legal criteria for capacity and its assessment, legislation and common law related to treatment refusal and substitute decision-making. A concern is that many patients who lack capacity are not easily identified as such by their relevant clinical team.⁴⁹ It is possible that HCPs only become concerned about capacity issues in patients who refuse treatment, and lack awareness that many patients who, despite quietly acquiescing, may not have capacity to consent.⁵⁰

Several studies have identified the need for greater attention to ethics training and education across medical and nursing training programmes and continuing professional development forums for generalist HCPs.^{29,33,36} Specific areas for training, education and professional programmes to consider relate not only to those of patient capacity assessment and evaluation^{21,23,34,43} but also to those of capacity-related legislation³⁵ and informed consent principles.²⁶ In addition, any such training and education should consider medical decision-making that is relevant to different cultures.⁴⁴ Attention to these areas will enable HCPs to exercise their relevant ethical and legal responsibilities.

Ethical and legal conflict influencing HCPs' decision-making

It is not clear to what extent paternalistic health care and the degree of deference once shown to HCPs have been replaced by a culture where autonomous patients are in control of their own health-care decisions. However, there does appear to be considerable ongoing tension between the concepts of autonomy on the one hand and beneficence-influenced paternalism on the other hand. Beneficence requires that HCPs *above all do good*, while paternalism may involve HCPs overriding or interfering with autonomous patient decision-making. Autonomy is proposed as the benchmark principle within contemporary health care, leading to a trend in health-care policy towards a more autonomous, consumer-driven model of practice.^{30,51} However, health-care practices may not be consistent with this model on occasions where autonomy and beneficence conflict. It has been suggested that most doctors will respect a patient's right to refuse treatment,⁴⁶ although the findings within the studies in this review suggest that there remains the presence of paternalism within both the medical and nursing professions, which may in turn influence HCPs' tolerance for treatment refusal.

McKneally et al.⁴⁷ discuss the debate concerning the difficulty in giving control of professional judgement over to 'informed' patients. It is acknowledged that frightened patients with life-threatening illnesses may lack objectivity in medical decision-making.⁴⁷ In addition, there may be an argument that not all patients wish to exercise autonomy and are happy to place their trust in medical decisions that are made for them, which in itself could be held to be an autonomous decision. However, this type of autonomous decision-making by patients clearly needs to be assessed and justified vis-à-vis individual medical decisions and not assumed as part of routine practice.

Arguably, the modern health-care principle of autonomy could be in conflict with a central component of the Hippocratic Oath and may challenge the utility of this component within contemporary medical practice. For example, the original Hippocratic Oath and later versions assert that medical practitioners should provide whatever treatment their professional judgement considers necessary for the benefit of patients while protecting them from harm.⁵² It is this component of the oath, still revered and recited by many medical graduates, that has been said to provide a warrant for paternalism.⁵² The Declaration of Geneva⁵³ and its later amendments, in which the World Medical Association provided additional and sometimes differently emphasised guidance to the Hippocratic Oath, may also arguably provide this warrant. For example, the Declaration of Geneva asserts that the health of a patient should be a practitioner's first consideration. It is possible that this could be interpreted in a range of ways by medical practitioners, with one potential interpretation being beneficence-influenced paternalism, and this may in turn conflict with a patient's autonomy. It is perhaps unsurprising that dissonance exists among HCPs with the daily presence and interpretation of the conflicting and competing principles of autonomy and beneficence.

Despite the majority of the retrieved studies focussing on the medical profession, this ethical conflict is not exclusive to medicine and can also be found within the nursing literature.^{24,26,36} Nursing ethics and medical ethics are grounded in the same principles of beneficence, non-maleficence (*doing no harm*) and autonomy, all of which may be subject to competing interests and priorities within the nursing profession also. Personal accountability is therefore emphasised and is exercised via the relevant geographical nursing

ethical and professional conduct codes, with a responsibility to ensure and maintain professional, ethical and legal standards of care. Furthermore, any dissonance evident in relation to these issues within the medical profession, howsoever manifested, is an issue that may directly impact on the nursing role, if such dissonance leads to unethical or unlawful interventions or coercion involving nursing staff.

Understanding HCPs' decision-making processes

This review has identified elements of HCP dissonance, highlighting that differences can exist between the opinions and self-reported behaviours of HCPs with regard to consent and the refusal of treatment.²⁵ Future research should seek to explore the conflict between what is espoused professionally and what is actually practised with regard to ethical and legal standards for capacity assessment and consent to treatment. Further research is also required in exploring the role and authority of surrogate decision-makers and their influence on the behaviours and decision-making of HCPs. This is of particular importance given HCPs' reported willingness to override explicit predetermined wishes of patients following a loss of capacity³⁰ or in the withdrawal of recommended care at the request of surrogates.²⁶ As highlighted within the findings, sociocultural, religious and demographic characteristics of HCPs appear to have a potential influence on their attitudes towards patient capacity and subsequent clinical decision-making. Thus, future research should be sensitive to identifying potential patterns of HCP decision-making in this respect. This review has also highlighted a need for qualitative research examining specifically HCPs' behaviours and interactions with patients and others in relation to capacity assessment and consent to treatment processes within generalist health settings. A qualitative inquiry using both interviews and observations would provide an opportunity to explore in-depth decision-making processes.

Methodological issues

Quality appraisal of the studies produced predominantly high scores. Fifteen studies received an MMAT rating of 100%, five of the studies received an MMAT rating of 75%, with the remaining three studies receiving an MMAT rating of 25%. Where studies did not receive an MMAT rating of 100%, this was related to response rate, representativeness and strategy of samples, and potential researcher bias. For example, the MMAT cut-off for response rate within studies is 60%. This meant that the studies by Kent,³⁸ Vincent,⁴⁶ Ganzini et al.³⁴ and Ersoy and Gündogmus,³³ with response rates of 32%, 40%, 53% and 32%, respectively, received MMAT ratings of 75%. This cut-off may be more unfair on the studies by Vincent⁴⁶ and Ganzini et al.,³⁴ as the sampling strategies within these studies involved European and US national association memberships, respectively. For example, the study by Vincent⁴⁶ invited all members of the European Society of Intensive Care Medicine to participate, and the study by Ganzini et al.³⁴ invited all members of the US Academy for Psychosomatic Medicine and randomly selected members of the US Gerontological Society of America to participate. Given that studies receiving a 100% MMAT rating may have involved a sample from one hospital only, inter-study comparisons of quality should be interpreted with caution when using the MMAT with respect to response rates. Some caution in using the MMAT tool is highlighted by the authors despite promising results with validity and reliability of the tool, as appraising mixed methods research remains a difficult but evolving process.⁵⁴

A lack of clear and transparent procedures for sampling was identified in three of the studies.^{30,35,36} This related to reporting only the numbers of participants in the studies, with no relationship to response rates or initial samples sought,^{25,30,36} and reporting only that participants were recruited via various professional forums.³⁵ The lack of reported inclusion and exclusion criteria within sampling procedures compromised the interpretation of representativeness within two of the studies.^{30,36} The methodological limitations

identified within the only qualitative study receiving an MMAT rating of <100% related to unclear processes for participant selection and data analysis.²⁸

Quality of a research synthesis depends partly on the quality of research studies included in the review. Generalisation of the findings of this integrated review may be limited in that only 5 of the 23 studies reviewed, exclusively explored HCPs' knowledge, attitudes and behaviours related to patient decision-making capacity. In most cases, capacity was one aspect of a broader study objective or a feature of the evaluation from a related topic, usually informed consent. Notwithstanding this, the quality of the studies was consistently high and conclusions could be drawn from the included studies, which enabled answering the research questions.

Relevance to practice

This study may have in some small way examined the potential for inconsistent practices, which contribute to human rights, statutory and civil law infringements, with regard to capacity and consent processes within health care. The lack of adequate educational preparation and continuing education provision for ethical issues, capacity and its relationship to a valid consent has been identified by generalist HCPs and in studies involving them. This raises pertinent workforce issues in relation to the interface between health, law and human rights within health care. Despite this study identifying many knowledge gaps and attitudinal dispositions related to capacity and consent to treatment, it is difficult to generalise the findings as a result of the geographical diversity of the studies reviewed. Furthermore, the literature regarding the influence of these knowledge gaps and attitudinal dispositions on outcomes remains relatively scarce. Notwithstanding, the findings suggest that these knowledge gaps and attitudinal dispositions may further contribute to inconsistency in applying the principles of beneficence and autonomy, which may suggest the presence of human rights, statutory and civil law infringements within generalist health care.

Specific capacity legislation similar to that of the United Kingdom may be beneficial to HCPs in highlighting the importance of facilitating capacity assessment processes and in providing direction in being competent to do so (*Mental Capacity Act 2005* (UK)). This legislation provides a framework for acting and making decisions on behalf of adults who lack decision-making capacity and is intended to protect vulnerable individuals from inconsistent health-related practices.

Conclusion

Tensions exist between legal, ethical and professional responsibilities relating to capacity assessment and consent to treatment within generalist health care. Not only are knowledge deficits influenced by a lack of provision for continuing education and professional development related to this topic but also by the professional, sociocultural, religious and demographic specificities of HCPs that affect their attitudinal disposition and subsequent clinical decision-making. There is also a need to explore and understand HCP dissonance in relation to capacity and consent to treatment processes. Greater attention to these issues within education and continuing professional development forums/programmes would go some way to helping ensure that HCPs are prepared to meet relevant legal, professional and ethical standards of care in relation to capacity assessment and consent processes.

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Conflict of interest

The authors declare that there is no conflict of interest.

References

1. Fullbrook S. The duty of care 1: compliance with directives and protocols. *Br J Nurs* 2007; 16: 52–53.
2. Gore DM. Ethical, professional, and legal obligations in clinical practice: a series of discussion topics for postgraduate medical education. Introduction and topic 1: informed consent. *Postgrad Med J* 2001; 77: 238–239.
3. Moye J and Marson DC. Assessment of decision-making capacity in older adults: an emerging area of practice and research. *J Gerontol B Psychol Sci Soc Sci* 2007; 62: P3–P11.
4. Dawson J and Kampf A. Incapacity principles in mental health laws in Europe. *Psychol Public Pol L* 2006; 12: 310–331.
5. Appelbaum PS. Assessment of patients' competence to consent to treatment. *N Engl J Med* 2007; 357: 1834–1840.
6. Newberry AM and Pachet AK. An innovative framework for psychosocial assessment in complex mental capacity evaluations. *Psychol Health Med* 2008; 13: 438–449.
7. World Health Organisation. *WHO resource book on mental health: human rights and legislation*. 2005. Available at: http://www.who.int/mental_health/policy/resource_book_MHLeg.pdf (accessed 12 January 2011).
8. Byatt N, Pinals D and Arikian R. Involuntary hospitalisation of medical patients who lack decisional capacity: an unresolved issue. *Psychosomatics* 2006; 47: 443–448.
9. Karlawish J. Measuring decision-making capacity in cognitively impaired individuals. *Neurosignals* 2008; 16: 91–98.
10. Magauran BG. Risk management for the emergency physician: competency and decision-making capacity, and refusal of care advice. *Emerg Med Clin North Am* 2009; 27: 605–614.
11. Shulman KI, Cohen CA and Hull I. Psychiatric issues in retrospective challenges of testamentary capacity. *Int J Geriatr Psychiatry* 2005; 20: 63–69.
12. Sullivan K. Neuropsychological assessment of mental capacity. *Neuropsychol Rev* 2004; 14: 131–142.
13. Carroll DW. Assessment of capacity for medical decision making. *J Gerontol Nurs* 2010; 34: 47–52.
14. Turhan O, Senol Y, Baykul T, et al. Knowledge, attitudes and behaviour of students from a medicine faculty, dentistry faculty, and medical technology Vocational Training School toward HIV/AIDS. *Int J Occup Med Environ Health* 2010; 23: 153–160.
15. Roumeliotou A, Kornarou E, Papaevangelou V, et al. Knowledge, attitudes and practices of Greek health professionals, in relation to AIDS. *Eur J Epidemiol* 1992; 8: 812–815.
16. Festinger L. Conflict, decision and dissonance. *J Abnorm Soc Psychol* 1964; 68: 359–366.
17. Brown D and Ferrill MJ. The taxonomy of professionalism: reframing the academic pursuit of professional development. *Am J Pharm Educ* 2009; 73: 68.
18. Edens GE. Professional socialization in nursing. In: *Annual research in nursing education conference*, San Francisco, CA, 14–16 January 1987.
19. Sidhu NS, Dunkley ME and Egan MJ. 'Not-for-resuscitation' orders in Australian public hospitals: policies, standardised order forms and patient information leaflets. *Med J Aust* 2007; 186: 72–75.
20. Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *J Clin Epidemiol* 2009; 62: 1006–1012.
21. Evans K, Warner J and Jackson E. How much do emergency healthcare workers know about capacity and consent? *Emerg Med J* 2007; 24: 391–393.
22. Yousuf RM, Fauzi ARM, How SH, et al. Awareness, knowledge and attitude towards informed consent among doctors in two different cultures in Asia: a cross sectional comparative study in Malaysia and Kashmir, India. *Singapore Med J* 2007; 48: 559–565.
23. Mullaly E, Kinsella G, Berberovic N, et al. Assessment of decision-making capacity: exploration of common practices among neuropsychologists. *Aust Psychol* 2007; 42: 178–186.

24. Aveyard H and Woolliams M. In whose best interests? Nurses' experiences of the administration of sedation in general medical wards in England: an application of the critical incident technique. *Int J Nurs Stud* 2006; 43: 929–939.
25. Atac A, Guven T, Ucar M, et al. A study of the opinions and behaviors of physicians with regard to informed consent and refusing treatment. *Mil Med* 2005; 170: 566–571.
26. Aveyard H. Informed consent prior to nursing care procedures. *Nurs Ethics* 2005; 12: 19–29.
27. Henson VL and Vickery DS. Patient self discharge from the emergency department: who is at risk? *Emerg Med J* 2005; 22: 499–501.
28. Jafarey AM and Farooqui A. Informed consent in the Pakistani milieu: the physician's perspective. *J Med Ethics* 2005; 31: 93–96.
29. Roberts LW, Geppert C, Warner T, et al. Bioethics principles, informed consent, and ethical care for special populations: curricular needs expressed by men and women physicians-in-training. *Psychosomatics* 2005; 46: 440–450.
30. Sypher B, Hall RT and Rosencrance G. Autonomy, informed consent and advance directives: a study of physician attitudes. *W V Med J* 2005; 101: 131–133.
31. Agard A, Herlitz J and Hermeren G. Obtaining informed consent from patients in the early phase of acute myocardial infarction: physicians' experiences and attitudes. *Heart* 2004; 90: 208–210.
32. Seaborn Moyse H and Osmun WE. Discharges against medical advice: a community hospital's experience (Erratum appears in *Can J Rural Med* 2004; 9(4): 265). *Can J Rural Med* 2004; 9: 148–153.
33. Ersoy N and Gündogmus Ü. A study of the ethical sensitivity of physicians in Turkey. *Nurs Ethics* 2003; 10: 472–484.
34. Ganzini L, Volicer L, Nelson W, et al. Pitfalls in assessment of decision-making capacity. *Psychosomatics* 2003; 44: 237–243.
35. Jackson E and Warner J. How much do doctors know about consent and capacity. *J R Soc Med* 2002; 95: 601–603.
36. Ersoy N and Göz F. The ethical sensitivity of nurses in Turkey. *Nurs Ethics* 2001; 8: 299–312.
37. Graber MA, Ely JW, Clarke S, et al. Informed consent and general surgeons' attitudes toward the use of pain medication in the acute abdomen. *Am J Emerg Med* 1999; 17: 113–116.
38. Kent G. Difficulties in obtaining informed consent by psychiatrists, surgeons and obstetricians/gynaecologists. *Health Care Anal* 1996; 4: 65–71.
39. Pluye P, Gagnon M, Griffiths F, et al. A scoring system for appraising mixed methods research, and concomitantly appraising qualitative, quantitative and mixed methods primary studies in Mixed Studies Reviews. *Int J Nurs Stud* 2009; 46: 529–546.
40. Pluye P, Robert E, Cargo M, et al. *Proposal: a Mixed Methods Appraisal Tool for systematic mixed studies reviews*. Montreal, QC, Canada: Department of Family Medicine, McGill University, 2011.
41. Whitemore R and Knafk K. The integrative review: updated methodology. *J Adv Nurs* 2005; 52: 546–553.
42. Patton MQ. *Qualitative research and evaluation methods*. 3rd ed. Thousand Oaks, CA: Sage, 2002.
43. Srinivasan J. Observing communication skills for informed consent: an examiner's experience. *Ann R Coll Physicians Surg Can* 1999; 32: 437–440.
44. Hipsham L. Attitudes towards informed consent, confidentiality, and substitute treatment decisions in southern African medical students: a case study from Zimbabwe. *Soc Sci Med* 1999; 49: 313–328.
45. Jamjoom AAB, White S, Walton SM, et al. Anaesthetists' and surgeons' attitudes towards informed consent in the UK: an observational study. *BMC Med Ethics* 2010; 11: 2.
46. Vincent JL. Information in the ICU: are we being honest with our patients? The results of a European questionnaire. *Intensive Care Med* 1998; 24: 1251–1256.
47. McKneally MF, Martin DK, Ignagni E, et al. Responding to trust: surgeons' perspective on informed consent. *World J Surg* 2009; 33: 1341–1347.
48. Chow GV, Czarny MJ, Hughes MT, et al. CURVES: a mnemonic for determining medical decision-making capacity and providing emergency treatment in the acute setting. *Chest* 2010; 137: 421–427.

49. Raymont V, Bingley PW, Buchanan A, et al. Prevalence of mental incapacity in medical inpatients and associated risk factors: cross-sectional study. *Lancet* 2004; 364: 1421–1427.
50. Nicholson TRJ, Cutter W and Hotopf M. Assessing mental capacity: the Mental Capacity Act. *BMJ* 2008; 336: 322–325.
51. Young A. Review: the legal duty of care for nurses and other health professionals. *J Clin Nurs* 2009; 18: 3071–3078.
52. McCullough LB. Was bioethics founded on historical and conceptual mistakes about medical paternalism? *Bioethics* 2011; 25: 66–74.
53. World Medical Association. Declaration of Geneva. 1948. Available at: <http://www.wma.net/en/30publications/10policies/g1/> (accessed 14 June 2011).
54. Pace R, Pluye P, Bartlett G, et al. Testing the reliability and efficiency of the pilot Mixed Methods Appraisal Tool (MMAT) for systematic studies review. *Int J Nurs Stud* 2012; 49: 47–53.