Mental Capacity for Treatment Decisions in Psychiatry

Inpatients

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The University of Dublin, Trinity College
This thesis work is dedicated to Andrew. May your different abilities not face discrimination.
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Papers published in conjunction with co-authors were done so with the full knowledge of Professor Brendan Kelly. I took a lead role in all the published papers, and I had the primary role in all steps of the process including data collection, analysis and writing of papers and thesis.

[Signature]

Aoife Curley

26/11/23
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VI. Abbreviations

AHD: Advanced Healthcare Directive
BPRS: Brief Psychiatric Rating Scale
CRPD: Convention on the Rights of Persons with Disabilities
ECHR: European Convention on Human Rights
ECtHR: European Court of Human Rights
ECT: Electro-Convulsive Therapy
EPA: Enduring Power of Attorney
DSS: Decision Support Service
HSE: Health Service Executive
IMC: Irish Medical Council
MacCAT-T: MacArthur Competence Assessment Tool for Treatment
MCA: Mental Capacity Act 2005
MHA: Mental Health Act 2001
MHC: Mental Health Commission
MMSE: Mini Mental State Examination
PANSS: Positive and Negative Syndrome Scale
SAPS: Scale for Assessment of Positive Symptoms
SANS: Scale for Assessment of Negative Symptoms
UDHR: Universal Declaration of Human Rights
UN: United Nations
WHO: World Health Organisation
VII. Abstract

This research aimed to assess the prevalence of mental capacity for treatment decisions in psychiatry inpatients in Ireland and elucidate the relationship, if any, between mental capacity and key clinical and demographic factors. As part of this work, a systematic review was completed, which aimed to examine the literature to determine the extent of the research and existing data in this field.

This research aimed to compare assessments of mental capacity based on legal criteria with those based on clinical criteria for mental capacity to establish the concordance, if any, between these two approaches to assessing mental capacity.

To examine this, mental capacity for treatment decisions was assessed in 215 psychiatry inpatients (176 voluntary and 39 involuntary) in four psychiatry units using both legal criteria (Ireland’s Assisted Decision-Making (Capacity) Act 2015) and clinical criteria (the MacArthur Competence Assessment Tool for Treatment; MacCAT-T). On multivariable linear regression analysis using linear scores of the MacCAT-T, mental capacity was significantly associated with voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age. Together, these factors accounted for 44.4% of the variance in mental capacity between participants.

The MacCAT-T scores were adapted to establish categorical mental capacity. Overall, 1.9% of participants lacked mental capacity for treatment decisions; 50.7% had partial mental capacity; and 47.4% had full mental capacity. The relatively high rate of “partial mental capacity” identified suggests that decision-making supports which have been implemented with the Assisted Decision-Making (Capacity) Act 2015 are likely to be
of substantial importance in assisting psychiatry inpatients making decisions about

According to the legal criteria as assessed using the criteria of The Assisted Decision-
Making (Capacity) Act 2015, over one third of participants (34.9%) lacked mental

capacity for treatment decisions. Patients who lacked mental capacity according to the

legislation scored significantly lower on all subscales of the MacCAT-T than patients

who had mental capacity. This leads to the conclusion that there is close correlation

between mental capacity assessments based on legal and clinical criteria. These findings

support the 2015 Act’s current legal definitions of mental incapacity.
New legislation, the Assisted Decision-Making (Capacity) Act 2015, was signed by the president of Ireland in December 2015 to change the way mental capacity is assessed and to allow for supports for people to make specific decisions should their mental capacity be impaired. It was finally commenced in April 2023. This study examined how many people with mental illness admitted to four psychiatry units in Ireland had the mental capacity to make decisions about their treatment. This study assessed mental capacity using a clinical tool (the MacCAT-T) and using the legal criteria set out in the Assisted Decision-Making (Capacity) Act 2015 to see how well psychiatry inpatients understood the treatment choices they faced and how well they could make decisions.

We found that mental capacity to make treatment decisions was associated with being a voluntary patient, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age. The clinical (MacCAT-T) scores were adapted to establish categorical mental capacity (that is whether a patient had full, partial or lacked mental capacity). Overall, 1.9% of participants lacked mental capacity for treatment decisions; 50.7% had partial mental capacity; and 47.4% had full mental capacity. According to the legal criteria as assessed using the 2015 Act’s criteria, over one third of participants (34.9%) lacked mental capacity to make treatment decisions. Patients who lacked mental capacity according to the legislation scored significantly lower on all parts of the clinical test (MacCAT-T) than patients who had mental capacity. Given that there is a close relationship between mental capacity assessments based on legal and clinical criteria, this supports the 2015 Act’s current legal definitions of mental incapacity.
IX. Aims of this Research.

The aims of this work are to assess the prevalence of mental capacity for treatment decisions among psychiatry inpatients and elucidate the relationships, if any, between mental capacity, psychiatry admission status and key demographic and clinical variables.

Its objectives are to (a) use the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) to evaluate patients’ understanding, appreciation, reasoning, and ability to express a choice regarding treatment decisions; and (b) assess the correlation of these variables with the new criteria for mental incapacity as set out in the Assisted Decision-Making (Capacity) Act 2015 (Section 3(2)).
X. Value of this research

This is the first significant study of mental incapacity among psychiatry inpatients in Ireland. It is an under-studied and important topic which was assessed despite the ethical challenges inherent in conducting research among patients who may lack mental capacity for both research and treatment decisions. To address these issues, a detailed consent procedure was developed, and the study was approved by three research ethics committees before commencement.

This research also examined the legal criteria for mental incapacity proposed in the Assisted Decision-Making (Capacity) Act 2015, comparing it to scores of a standardised test for clinical assessment of mental capacity (the MacCAT-T). The finding of close correlation between mental capacity assessments based on legal and clinical criteria supports the 2015 Act’s current legal definitions of mental incapacity. This study was first direct comparison of outcomes of legal and clinical assessments of mental incapacity in psychiatry inpatients.

The issue of logistics in implementing the supports described in the Assisted Decision-Making (Capacity) Act 2015 is critical. By having an estimate of the prevalence of mental incapacity for treatment decisions in this population it helps logistically to clarify the extent of the demand for such supports now that the 2015 Act has been commenced. In terms of the interaction between our findings of categorical mental capacity and the 2015 Act, patients we identified as having full mental capacity for treatment decisions (47.4%) would not require any supports under the legislation; those
with partial mental capacity (50.7%) would likely benefit from decision-making assistants or co-decision-makers; and those who lacked mental capacity (1.9%) might require a “decision-making representative” for treatment decisions (i.e. substitute decision-making), especially if decision-making assistants or co-decision-makers did not appear appropriate or did not prove sufficient.
XI. Outputs

Publications: Original research (peer reviewed)


Oral Presentations:

- Presented at the XXXVIth International Congress on Law and Mental Health. Rome 2019: *Concordance of mental capacity assessments based on legal and clinical criteria: A cross-sectional study of psychiatry inpatients.*
Chapter 1

Introduction
1. Introduction

1.1. Introduction and Background

The outdated capacity or ward of court system used in Ireland and legislated under The Lunacy Regulation (Ireland) Act 1871 has finally been replaced by the Assisted Decision-Making (Capacity) Act 2015. The purpose of the 2015 Act is to assist persons in exercising their decision-making capacity using the new statutory framework (Kelly, 2017). The Assisted Decision-Making (Capacity) Act 2015 was passed in December 2015 and was commenced in April 2023. The aim of the Act is to reform the law for people whose capacity is in question and need help making decisions now or in the future. In terms of Irish capacity legislation, it is the most significant progression in over a century. While decision-making capacity is a legal concept it has significant implications in clinical practice (Duffy and Kelly, 2017, Larkin and Hutton, 2017). The 2015 Act has the potential to have a huge impact not only for patients, but also for their families and healthcare professionals (Kelly, 2016b).

According to the Assisted Decision-Making (Capacity) Act 2015, Section 3(2) “A person lacks the capacity to make a decision if he or she is unable -

(a) To understand the information relevant to the decision,

(b) To retain that information long enough to make a voluntary choice,

(c) To use or weigh that information as part of the process of making the decision, or

(d) To communicate his or her decision (whether by talking, writing, using sign language, assistive technology, or any other means) or, if the implementation of the
decision requires the act of a third party, to communicate by any means with that third party.”

New models of supported decision-making are addressed within the Assisted Decision-Making (Capacity) Act (Kelly, 2017). The act outlines three levels of supported decision-making: “decision-making assistant”, “co-decision-maker” (joint decision-making) and “decision-making representative” (substitute decision-making), which are also applicable to psychiatry inpatients whose capacity is in question, allowing them to retain as much autonomy as possible.

From a legal perspective, standards for capacity to consent differ between jurisdictions, however the principles are generally similar to the functional approach adopted within the Assisted Decision-Making (Capacity) Act 2015. The Act has followed the approach used in the Mental Capacity Act 2005 in England and Wales which also tests a person’s ability to understand, retain, use or weigh up information and communicate a decision. Using this functional approach, a clinician comes to a binary decision regarding a person’s decision-making capacity for treatment. In the US, the MacArthur Treatment Competence Study developed a tool for assessing decision making capacity for treatment, the MacCAT-T (Grisso and Applebaum, 1998). This semi-structured interview measures understanding, appreciation, reasoning, and the ability to express a choice. The MacCAT-T measures these elements on dimensional scales which have shown a high degree of inter-rater reliability (Sturman, 2005b, Grisso et al., 1997b).
In Ireland, as in many other jurisdictions (e.g. England and Wales), lack of mental capacity does not form an explicit part of the legal criteria for involuntary psychiatric admission (Kelly, 2016). The Mental Health Act (MHA) 2001 primarily looks at the involuntary detention of patients alongside the standard of care and review they receive. Those admitted to approved mental health centres are admitted on a status basis, either voluntarily or involuntarily, without consideration of their mental capacity. With this status approach it is likely that many voluntary psychiatric inpatients lack the mental capacity while some involuntary psychiatric inpatients may possess the mental capacity to make treatment decisions. This is a paradoxical situation and raises concern for patients’ human rights.

Ireland’s Mental Health Act 2001 permits involuntary admission when a person has a “mental disorder”, which means “mental illness, severe dementia or significant intellectual disability where (a) because of the illness, disability or dementia, there is a serious likelihood of the person concerned causing immediate and serious harm to himself or herself or to other persons, or (b) (i) because of the severity of the illness, disability or dementia, the judgment of the person concerned is so impaired that failure to admit the person to an approved centre [i.e. psychiatry inpatient unit] would be likely to lead to a serious deterioration in his or her condition or would prevent the administration of appropriate treatment that could be given only by such admission, and (ii) the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent” (Section 3(1)).
The legislation also defines mental illness, severe dementia and significant intellectual
disability (Section 3(2)). Mental illness is “a state of mind of a person which affects the
person’s thinking, perceiving, emotion or judgment and which seriously impairs the
mental function of the person to the extent that he or she requires care or medical
treatment in his or her own interest or in the interest of other persons”. Severe dementia
is “a deterioration of the brain of a person which significantly impairs the intellectual
function of the person thereby affecting thought, comprehension and memory and
which includes severe psychiatric or behavioural symptoms such as physical
aggression”. Significant intellectual disability is “a state of arrested or incomplete
development of mind of a person which includes significant impairment of intelligence
and social functioning and abnormally aggressive or seriously irresponsible conduct on
the part of the person”.

There is considerable variation in the estimates of mental capacity among psychiatry
inpatients to date. One systematic review found the median proportion of psychiatry
inpatients who lack mental capacity is 29% (Okai et al., 2007) while another found that
45% lack mental capacity (Lepping et al., 2015). Studies show varying results when it
comes to patient demographics associated with mental incapacity for treatment
decisions among psychiatry patients. Some studies show an association between
increasing age and mental incapacity in psychiatry inpatients (Roth et al., 1982, Norko
et al., 1990, Appelbaum et al.) while others show no association (Melamed et al., 1997b,
Cairns et al., 2005a, Spencer et al., 2018). Not all but most studies (Spencer et al., 2018,
Melamed et al., 1997b, Cairns et al., 2005a, Palmer et al., 2004) found no robust
relationship between gender and mental capacity; studies reported a relationship
between involuntary admission status and reduced mental capacity (Cairns et al., 2005a,
Okai et al., 2007, Mandarelli et al., 2014, Spencer et al., 2018, Maxmin et al., 2009), even though incapacity is not an explicit part of criteria for involuntary care in Ireland. Spencer et al. (2018) found no association between involuntary admission status and decision-making capacity to participate in research, highlighting the potential to retain mental capacity in one area while lacking it in another, and the importance of decision-specific capacity assessments. Against this background further exploration of patient demographics and clinical factors impacting on mental capacity is required and this study sought to clarify these areas.

1.2. Human Rights

A right is a moral or legal entitlement. Human rights are rights to which all human beings are entitled to claim. In light of the atrocities of World War II, the United Nations (UN) was established in October 1945 to protect international peace. A primary aim of the UN was to develop a framework to promote observation of human rights amongst its member states. These inherent rights apply to all regardless of nationality, sex, ethnicity, race, religion, language, or any other status. They are contained in the Universal Declaration of Human Rights (UDHR), a document which sets out that fundamental human rights are to be universally protected for all nations and all peoples (United Nations, 1948).

Rights can be positive or negative. With a negative right there is freedom from the intervention of others, whereas with a positive right there is a right to something for example healthcare. A negative right is more often legally based and therefore tends to
be easier to enforce. This is in contrast to a positive right which often requires the allocation of a resource (McCarthy et al., 2010).

Everyone has rights which must be considered. Articles 40-45 of the Irish Constitution (1937) set out the fundamental rights of citizens of Ireland no matter what their level of functioning or capacity. Article 40.3.1 which provides that “The State guarantees in its laws to respect, and, as far as practicable, by its laws to defend and vindicate the personal rights of the citizen” (Irish Constitution, 1937).

Article One of the UDHR states that “all human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act toward one another in a spirit of brotherhood” (United Nations, 1948). Article 2 places emphasis on the universal nature of rights “Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status” (United Nations, 1948, Article 2), however it does not explicitly mention mental illness. In 1991 in the Principles for the Protection of Persons with Mental Illness and the Improvement of Mental Health Care, the UN emphasised the application of rights to those suffering from a mental disorder:

“Every person with a mental illness shall have the right to exercise all civil, political, economic, social and cultural rights as recognized in the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, and in other relevant instruments, such as the Declaration on the Rights of Disabled Persons and the Body of
Principles for the Protection of All Persons under Any Form of Detention or Imprisonment” (United Nations, 1991).

The European Union Charter of Fundamental Rights became legally binding in Ireland in 2009. Article 1 of the Charter reminds us of the importance of dignity as a human right where it states that “Human dignity is inviolable. It must be respected and protected” (European Union Charter of Fundamental Rights, 2000, Article 1).

Following on from the UN's Principles for the Protection of Persons with Mental Illness and the Improvement of Mental Health Care in 1991, the World Health Organization (WHO) outlined 10 principles of mental health care law in 1996 (Kelly, 2016a). These guidelines include that “consent is required before any type of interference with a person can occur”; “if a patient experiences difficulties appreciating the implications of a decision, although not unable to decide, the patient shall benefit from the assistance of an appropriate third party of his or her choice” and “for decisions affecting integrity or liberty, with a long-lasting impact, there should be automatic periodical review mechanisms” (World Health Organization, 1997). These guidelines were a most welcome addition with respect to protecting the dignity and rights of those suffering from a mental illness and are finally being legislated for in Ireland.

The Assisted Decision-Making (Capacity) Act 2015 now provides the legislation regarding assistance in making decisions. However, as will be discussed further there are also some exceptions within the 2015 Act for those detained under the Mental Health Act 2001. Section 1.7 will detail the provisions for review mechanisms within
the Mental Health Act 2001, however the 2001 Act falls short on the issue of interference without consent, which again will be reviewed later in this chapter.


The Convention on the Rights of Persons with Disabilities (CRPD) is an international human rights treaty and is monumental in terms of protecting the rights of persons with disabilities (Freeman et al., 2015). According to the 2016 census there were over 643,000 people in Ireland living with a disability (Central Statistics Office, 2016). Measures changed for the 2022 census such that approximately 22% of the population (1,109,557) reported that they experienced at least one long-lasting condition or difficulty to some extent. Out of these people 407,342 (8% of the population) reported that they experienced at least one long-lasting condition, or great extent of difficulty; and a further 702,215 (14% of the population) reported a long-lasting condition or some extent of difficulty (Central Statistics Office, 2022). Persons with disabilities frequently meet with barriers, experience discrimination and are more likely to have their human rights violated (Banks et al., 2018). Thanks to the CRPD which was adopted by the UN in 2006, countries which ratify the convention must ensure that there is progress in terms of equality and human rights for those with disabilities. Ireland was one of the first countries to sign up to the Convention in 2007 but only ratified the CRPD in March 2018.

1.3.1. General principles

The CRPD requires that countries “promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity” (United Nations, 2006,
Article 1). However, the definition of “persons with disabilities” only includes those with long term impairments and is therefore not a comprehensive one (Kelly, 2015b, p. 95). This results in a situation where only some people suffering with mental illness fall under this definition. It is likely that those with mental disorders such as schizophrenia meet the criteria while others having a diagnosis such as brief psychotic episode or adjustment disorder would not (Kelly, 2015b).

The CRPD addresses capacity in Article 12.2 where it requires that "States Parties shall recognize that persons with disabilities enjoy legal capacity on an equal basis with others in all aspects of life" and states that appropriate measures to provide access to the support that a person with a disability may require to exercise their legal capacity are to be taken (United Nations, 2006).

Article 12.4 requires that participants ensure all measures are to be taken to provide “appropriate and effective safeguards to prevent abuse in accordance with international human rights law”. Safeguards should be put in place to ensure that “measures relating to the exercise of legal capacity respect the rights, will and preferences of the person, are free of conflict of interest and undue influence, are proportional and tailored to the person's circumstances, apply for the shortest time possible and are subject to regular review by a competent, independent and impartial authority or judicial body. The safeguards shall be proportional to the degree to which such measures affect the person's rights and interests”.(United Nations, 2006, Article 12.4)
This piece of the Convention has had a particular impact on the foundation and principles of the Assisted Decision-Making (Capacity) Act 2015 which will be seen in section 1.6 where the resulting reformed legislation provides for a comprehensive support system for people with impairment of their mental capacity.

The CRPD require that state parties ensure that persons with disabilities “enjoy the right to liberty and security of person”; that they are “not deprived of their liberty and security of person; are not deprived of their liberty unlawfully or arbitrarily; and that any deprivation of liberty is in conformity within the law and that the existence of mental illness shall in no case justify a deprivation of liberty” (United Nations, 2006, Article 14(1)(b)).

The Mental Health Act 2001 states that "due regard" is to be given to the need "to respect the right of the person to dignity, bodily integrity, privacy and autonomy" (Mental Health Act 2001, Section 4(3)). However, The Mental Health Act 2001 allows for the detention of persons with a mental disorder and is therefore inconsistent with Article 14 of the CRPD where those affected may be among those defined as being persons with disabilities.

Article 33 of the CRPD states that each country must have a body within the Government to monitor how they are progressing with its legislation and improving its policies but there must also be an independent body to monitor the Government (United Nations, 2006). This is to ensure that essential services are accessible to all such as housing, education, and healthcare. The Irish Human Rights and Equality
Commission fulfils this role as an independent monitoring service, and it includes input from those experiencing disabilities through the Disability Advisory Committee to comply with Article 33.

Despite appearances, the CRPD does not necessarily create a level playing field for all. Human rights may be unintentionally violated if Ireland were to stick rigidly to the CRPD, whereby a lack of safeguarding for the treatment of those too unwell to consent to treatment for themselves may infringe on their right to the highest attainable standards of care or their right to life (Freeman et al., 2015). Treatment “in the least restrictive setting” is promoted as an alternative to involuntary treatment within the Irish legislation (Kelly, 2015b, p.83). “The consent of a patient shall be required for treatment” (Mental Health Act 2001, Section 56(a)), and there is due regard given to patient autonomy, however at present “patient” only refers to involuntary patients. This is a serious shortfall in the Mental Health Act 2001 such that Ireland’s legislation does not require a voluntary patient to provide informed consent. However, we are awaiting the commencement of the amended legislation on this matter. This issue along with other amendments in the Mental Health Act 2001 will be explored further in section 1.7.

1.3.2. Supported decision-making

People make multiple decisions on a daily basis but more important decisions such as those about their property, finances, accommodation, employment, social supports and healthcare are made at different stages in their lives (Decision Support Service, 2023). In more recent years the idea of supported decision-making has become much more familiar in legal and clinical settings especially with the commencement of the Assisted
Decision-Making (Capacity) Act 2015 which allows individuals with disabilities to make decisions about their own lives with the appropriate support. It reduces the need for substitute decision-making and individuals with disabilities can make choices assisted by those they trust (Decision Support Service, 2023).

According to Chartres and Brayley, “no person should have another person appointed to make a decision on their behalf, if they could make the decision themselves with assistance and support” (Chartres and Brayley, 2010, p.1). For those whose capacity is in question, there are a range of supported decision making options to help (Davidson et al., 2015) people make their own decisions where possible. Supported decision making has to date been more familiar to those dealing with end-of-life decisions or intellectual disability. However within mental health, supported decision-making is extremely relevant, especially where involuntary or compulsory treatment is proposed (Davidson et al., 2015). As was the case in Ireland with the Ward of Court System, many countries legislation focused on capacity in an all or nothing fashion, where people were either seen to have full capacity to make decisions or to lack capacity. However, with the increasing importance of the concepts of human rights and autonomy with the CRPD, capacity legislation for supported decision making has been drawn up in many jurisdictions. These include the Mental Capacity Act (MCA) 2005 (England and Wales), the Mental Capacity Act (Northern Ireland) 2016 and the Assisted Decision-Making (Capacity) Act 2015 in Ireland. These legal frameworks highlight the use of supported decision making in an effort to prevent substitute decision making where possible.
The CRPD does not define ‘supported decision-making’ but in Article 12(3) it requires that States provide access to the support that persons with disabilities “may require in exercising their legal capacity” (United Nations, 2006, article 12(3)). Therefore ‘supported decision-making’ is seen as a constitutive element of this support to exercise legal capacity (Davidson et al., 2016, Browning et al., 2014).

The Office of the High Commissioner for Human Rights elaborates on this stating that:

“Supported decision-making can take many forms. Those assisting a person may communicate the individual’s intentions to others to help him/her understand the choices at hand. They may help others realize that a person with significant disabilities is also a person with a history, interests and aims in life, and is someone capable of exercising his/her legal capacity” (United Nations, 2007, pp. 90-91).

For those who have challenges with their mental capacity and may need support, there are five different arrangements provided for within the Assisted Decision-Making (Capacity) Act 2015. These support arrangements are dependent on the various levels of assistance that a person may require to make a particular decision at a particular time (Decision Support Service, 2023). These arrangements will be detailed in Section 1.6.4, but in summary they include a decision-making assistance agreement, co-decision-making agreement, and a decision-making representation order for those who face challenges now or may do so in the near future. For people who may wish to plan for the future, there are two types of arrangements which can be set up for a time when they might lose capacity; these are enduring power of attorney and advance healthcare directive (Decision Support Service, 2023).
1.3.3. Substitute Decision-Making

There may come a time when a substitute decision-maker is required. This comes about when despite assistance, a person does not have the capacity to make a specific decision. Substitute decision-making is based on considering what the person themselves would have wanted if they had the capacity to make that decision (Donnelly, 2010, p.185).

Substitute decision-making is a term used to describe the appointment of a person to make a decision on behalf of another who lacks the mental capacity to make a particular decision (Davidson et al., 2016). This can include power of attorney arrangements, guardianship, and wards of court. Substitute decision-making regimes were defined by the CRPD (2014) and acknowledged that regimes can be in many different forms which have certain common characteristics in that they

“can be defined as systems where (i) legal capacity is removed from a person, even if this is just in respect of a single decision; (ii) a substitute decision-maker can be appointed by someone other than the person concerned, and this can be done against his or her will; and (iii) any decision made by a substitute decision-maker is based on what is believed to be in the objective “best interests” of the person concerned, as opposed to being based on the person’s own will and preferences” (Committee on the Rights of Persons with Disabilities, 2014, Para 23).

The CRPD state that “parties’ obligation to replace substitute decision-making regimes by supported decision-making requires both the abolition of substitute decision-making
regimes and the development of supported decision-making alternatives. The development of supported decision-making systems in parallel with the maintenance of substitute decision-making regimes is not sufficient to comply with article 12 of the Convention” (Committee on the Rights of Persons with Disabilities, 2014, para 28).

In this we can see that Ireland is not compliant with Article 12. While the Assisted Decision-Making (Capacity) Act 2015 has decision support options, it also legislates for substitute decision-making options where required.

1.4. Assessing Mental Capacity from an Ethical Perspective

1.4.1. Introduction

“A conclusion about a patient’s decision-making capacity necessarily reflects a balancing of two important, sometimes competing objectives: to enhance the patient’s well-being and to respect the person as a self-determining individual” (United States. President's Commission for the Study of Ethical Problems in Medicine Biomedical and Behavioral Research, 1982, p. 57).

Understanding of mental capacity has developed significantly alongside human rights in recent years. Ireland has finally replaced the ward of court system which assessed capacity in an all or nothing fashion. Now within Irish legislation, capacity should be presumed unless there is evidence to the contrary, even if the patient comes to an unwise decision. Part one of the Assisted Decision-Making (Capacity) Act 2015, Preliminary and General, looks at the assessment of capacity which is “to be construed functionally” is issue and time specific, and looks at the way in which a decision is
reached (Assisted Decision-Making (Capacity) Act, 2015) The Irish Medical Council (IMC) which regulates registered medical practitioners in Ireland, has recommended the use of a functional approach to testing capacity since 2009 (Irish Medical Council, 2009). The Health Service Executive (HSE) National Consent Policy (2013) advises similarly (Health Service Executive, 2013). This functional approach has also been found in case law in Ireland in Fitzpatrick & Anor -v- K. & Anor [2008]. But first we will consider the history and ethical background to some of the principles of mental capacity and consenting to treatment.

1.4.2. Ethical background

The Hippocratic Oath has been the traditional basis of medical ethics whereby physicians swear to ethical standards of practice including “Primum non nocere”, first do no harm. However the paternalistic approach with deference and non-disclosure have also dominated the medical profession for over 2,500 years (Madden, 2016, p.409). The paternalistic approach in medicine presumes that the doctor knows best and relies on their own judgements to determine the best treatment for a patient. However there has been increasing criticism of this approach in recent years, based on concerns regarding certain medical practices especially in relation to mental health and medical research abuse.

As philosopher Onora O’Neill points out “no themes have become more central in large parts of bioethics, and especially in medical ethics, than the importance of respecting individual rights and individual autonomy” (O’Neill, 2002, p. 2). However, in psychiatry the patients will and preferences are not always complied with and coercive
treatment is common (Dressing and Salize, 2004). Notwithstanding this, it can be argued in some cases, due to the level of illness impacting on their capacity, that patients are not capable of making certain autonomous decisions about their treatment.

In 1979, Beauchamp and Childress proposed four principles to govern medical ethics; autonomy, beneficence, non-maleficence and justice. Beauchamp and Childress see paternalism as the deliberate overriding of one’s preferences by another person, with the aim of preventing harm or benefitting that person (Beauchamp and Childress, 2013). Despite good intentions, by modern standards medical paternalism is no longer acceptable “whereby doctor and patient now stand in a different relationship to each other, one that is based on mutual trust and shared understanding (Madden, 2005, para 2.4). As Feldman (2010) stated “we have come a long way since the days of physician paternalism ”it is a difficult balance to reach between the dual goals of respect for patient autonomy and the need for physicians to respectfully and clearly share their expertise and ideas” (Feldman, 2010).

Essentially all ethical theories see two conditions as a requirement for autonomy; liberty (from being controlled) and agency (capacity for intentional action) (Beauchamp and Childress, 2013, p.102). Autonomous agents have the “right to hold views, make choices, and to take actions based on their values and beliefs” (Beauchamp and Childress, 2013, p.106). Autonomy is not only a right to refuse treatment but is also a positive right to partake in the decisions regarding treatment (Sjöstrand and Helgesson, 2008). However, in the context of psychiatry, often due to concerns about patient safety or that of others, mental health legislation can interfere with a patient’s autonomy.
1.4.3. Informed Consent

Ethically and legally, doctors are required to obtain informed consent before treating patients. The Irish Medical Council’s ethical guidelines state: “If you are the doctor providing treatment or undertaking an investigation, it is your duty to make sure that the patient has given consent before providing treatment” (Irish Medical Council, 2019, para 13.1). According to these guidelines “every adult with capacity is entitled to refuse medical treatment or withdraw consent. You must respect a patient’s decision to refuse treatment or withdraw consent, even if you disagree with that decision” (Irish Medical Council, 2019, para 15.1).

However consent is not always necessary in certain cases, for example in public health interventions or in an emergency (Beauchamp and Childress, 2013, p110). The fundamental paradigm in health of expressing autonomy is explicit or expressed consent, or refusal to consent (Beauchamp and Childress, 2013, p110). However, it is well within people’s rights to change their preferences and beliefs as can happen with time. The main consideration is to ensure that the person is still acting autonomously. It is important to note if a change of beliefs is due to illness affecting their capacity such as a delirium or psychotic illness or are there external factor at play for example pressure from a relative (Beauchamp and Childress, 2013, p.114)?

Capacity and competency are often used interchangeably, with capacity more frequently used in healthcare and competency within the legal profession. (Beauchamp and Childress, 2013, p.116). From a legal perspective, standards for capacity to consent differ between jurisdictions (Appelbaum, 2007), however the principles are generally like the functional approach adopted within the Assisted Decision-Making Capacity Act 2015. While it is legislated that there is a presumption of capacity, determining whether
patients have capacity is essential in balancing the respect for autonomy of patients who can make informed decisions and protecting those whose capacity is impaired (Appelbaum, 2007). But even those deemed to lack “capacity to make a decision are entitled to the same respect for their dignity and personal integrity as anyone with full capacity” (Irish Medical Council, 2019, para 10.2). It is imperative that a patient’s will and preferences are considered, that their views are listened to and they are involved in their healthcare decisions as much as possible (Irish Medical Council, 2019). An important aspect of autonomous decisions is that they must be free from undue influence, be made with adequate and relevant information, and at the time the decision in being made the person making the decision must have the capacity to make that decision. For an individual’s “autonomous authorisation” or informed consent, a five-element approach is favoured by many in legal, medical and psychological literature (Beauchamp and Childress, 2013, p.124). The components include understanding, competence, consent, disclosure and voluntariness (Beauchamp and Childress, 2013, p.124). Beauchamp and Childress see three criteria as the most critical elements to autonomous action and informed consent: disclosure (obligation to disclose information), understanding and voluntariness (where a person’s actions are free from the control of another person or illness). While the term “informed consent” is used, it is important to acknowledge that it also allows for the potential of informed refusal (Beauchamp and Childress, 2013, p124).

Voluntarism is defined as “the individual’s ability to act in accordance with one’s authentic sense of what is good, right, and best in light of one’s situation, values, and prior history” (Roberts, 2002). Dating back to the Nuremburg Code, voluntariness is recognised in that a research subject “should be so situated as to be able to exercise free
power of choice, without the intervention of any element of force, fraud, deceit, duress, over-reaching, or other ulterior form of constraint or coercion” (International Military Tribunal, 1949). In the study of mental illness, the issue of voluntarism is an important issue to consider ethically (Stanley, 1986).

Unfortunately, there are no guidelines for assessing the capacity for voluntarism despite the necessity of voluntarism to fulfil the criteria for informed consent. Within psychiatry, this has hindered the resolution of key ethical problems for example the undertaking of research in those with mental illness and their clinical care (Roberts, 2002). Symptoms of mental illness such as those of depression (such as poor motivation, concentration negative cognitions and low energy) or symptoms of schizophrenia; (e.g. bizarre delusions, avolition, disordered perceptions and apathy); (Carpenter et al., 2000) can all affect voluntarism by affecting a patient’s ability to organise their thought processes and make a reasoned decision (Backlar, 1998). For those with diminished voluntarism, their informed consent is compromised if it is symptom driven or coerced and therefore it can highlight their vulnerability (Etchells et al., 1996). Once it its recognised, there is potential to restore capacity for voluntarism. This can be achieved through social and educational interventions in a similar manner to that of decision-making capacity. Also, a clinician may unveil features of the cases which may allow what appeared to be “insoluble ethical dilemmas” to be tackled from a different perspective by assessing for voluntarism (Geppert and Abbott, 2007).
Clinicians are attempting to achieve the principle of respect for persons and their autonomy in clinical care when trying to fulfil the concept of voluntarism.
1.4.4. Safeguarding for those who Lack Mental Capacity

According to the World Psychiatric Association “when the patient is gravely disabled, incapacitated and/or incompetent to exercise proper judgment because of a mental disorder” (World Psychiatric Association, 1996), treating psychiatrists should consult with the family where appropriate and seek legal advice in order to “safeguard the human dignity and the legal rights of the patient” (World Psychiatric Association, 1996). They advise that “treatment must always be in the best interest of the patient” (World Psychiatric Association, 1996). This idea of best interests fits in with the current Mental Health Act 2001 but not with the Assisted Decision-Making (Capacity) Act 2015 or with the changes within the Amendment Act 2018 once commenced which will be discussed further in section 1.7.

Autonomous decisions as those made intentionally and with substantial understanding and freedom from controlling influences (Beauchamp and Childress, 2013, p.101). However, Beauchamp and Childress explicitly exclude those who are not competent to make specific decisions from the protection of the principle of respect for autonomy (Beauchamp and Childress, 2013, p.101, Entwistle et al., 2010). As Professor Kennedy stated in an article in The Irish Times in 2012:

“There can be no dignity for the mentally disabled without the support necessary to regain health and autonomy. There can be no freedom to make one’s own choices until that autonomy has been restored. It is the purpose of mental health legislation to codify this practical pathway from disability to recovery” (Kennedy, 2012).
In situations where an episode of severe mental illness is evident, a capacity assessment is justified and should not be regarded as infringing on the patient’s rights. In fact, where the overall purpose is to improve the person’s situation, access to supports and improve their capacity to make autonomous decisions, to not assess capacity could perhaps appear negligent in some cases. With respect to the “voluntary patient”, they do not enjoy the protections provided by the Mental Health Act 2001 for involuntary patients which will be detailed in Section 1.7. They could potentially remain a voluntary patient for a lengthy period without independent review and there is no provision for external oversight of proceedings (Department of Health, 2015). However, one must be cognisant of the complexity that could arise with expansive legislation to fill these gaps, which could potentially stigmatise those with a mental illness even further (Kelly, 2014a, Campbell, 1994).

1.4.5. Conclusion

This section has primarily focused on the principle of respect for autonomy, paternalism and consent. It can be difficult to reach a compromise between the requirement of physicians to advise the patient of their expert opinion and respect for patient autonomy (Feldman, 2010). It is imperative to try to maintain a balance between supporting individuals, respecting autonomy and recognising when the patient does not have the capacity to make an autonomous decision. In such incidents where a patient lacks mental capacity to make a decision, they may require supported or substitute decision-making assistance. Mental health legislation, capacity legislation and their intersection will be explored in more detail later in this chapter.
1.5. Assessing Mental Capacity in Practice

1.5.1. Capacity assessment approaches

There has been much debate as to which test should be undertaken to assess capacity. Madden (2016) gives an overview of approaches which could be adopted and includes an outcome approach, a status approach or functional approach. An outcome-based approach looks to see if the decision reached by the person was wise. The conclusion that a person lacks capacity is made because the decision that the person with a disability arrived at was not a wise one (Dhanda, 2006). However, if by reason of making an unwise choice a person is deemed to lack mental capacity it would be a clear breach of respect for autonomy (Madden, 2016).

A status approach defines a person’s capacity by virtue of their medical condition or being part of a legally defined group. Using the status approach, ‘once it is established that any individual is a person with a disability, the law presumes a lack of capacity’ (Dhanda, 2006). No account is taken of the individuality of the person and clearly undermines their rights and autonomy (Madden, 2016, p.416). The person's capacity to make a specific decision is not assessed (Bellhouse et al., 2001) resulting in a declaration that persons with a disability are unable to carry out a legal task (Dhanda, 2006), traditionally leading to substitute decision-making (Devi et al., 2011).

The third approach is the functional assessment which is decision specific and time specific. As opposed to a general judgement that the person may lack mental capacity, this approach reflects that a person may have capacity to make some but not all decisions. While it could potentially be more time consuming and relies on the
judgement of the assessor, it is important to recognise that legislation always presumes mental capacity and requires adequate triggers to be challenged (Madden, 2016, p.416). Following the lead of England and Wales, the functional approach is the method that has been adopted in Ireland’s new capacity legislation.

1.5.2. **Functional capacity assessment: Mental Capacity Act 2005**

The functional approach to assessing mental capacity was adopted in England and Wales through the Mental Capacity Act (MCA) 2005. This single statutory framework for capacity was introduced with respect to making decisions for those whose capacity is in question. The legislation is based on two key concepts: lack of capacity and best interests (British Medical Association and the Law Society, 2010). At the time of assessment, a person lacks capacity in relation to a matter if, he or she is unable to make a decision in relation to the matter because of either a temporary or permanent ‘impairment of, or a disturbance in the functioning of, the mind or brain’ (Mental Capacity Act 2005, Section 2(1)).

There are effectively two parts to the capacity test in this legislation; the functional test assessing if the person is able to make the decision for themselves and secondly whether that incapacity is due to “an impairment of, or a disturbance of the functioning of, the mind or brain” (Mental Capacity Act 2005).

Once the diagnostic requirement has been fulfilled, a person’s capacity to make the particular decision for themselves must be assessed. Section 3(1) of the MCA 2005 states that a person is unable to make a decision if he or she is unable:
(a) to understand the information relevant to the decision;
(b) to retain that information;
(c) to use or weigh that information as part of the process of making the decision; or
(d) to communicate his decision (whether by talking, using sign language or any other means).

As we will see in the next section the Mental Capacity Act 2005 paved the way in terms of legislative change with this functional approach and similar criteria at the centre of Ireland’s new legislation.

1.5.3. Functional Approach to Capacity Assessment in Ireland

Until recent years there was no legislative framework in Ireland with respect to capacity to provide guidance for medical and social care practice. The functional approach to assessing mental capacity however can been found in case law in Ireland in Fitzpatrick & Anor -v- K. & Anor [2008]. In this case K was a 23-year-old lady from the Congo who experienced a massive post-partum haemorrhage and collapse following the birth of her baby in an Irish hospital. On religious grounds she declined a blood transfusion. Fearing that K may die without the transfusion, following assessment by the Master of the hospital they decided to apply to the High Court seeking authority to transfuse K under an emergency order. Following full recovery, K claimed that the transfusion constituted an assault, was unlawful and a trespass on her person. On review of the case Laffoy, J., taking all into consideration found that there should be a presumption of capacity but that “presumption can be rebutted” (Fitzpatrick & Anor -v- K. & Anor, 2008). In the decision of whether the patient has capacity to decide to refuse medical
treatment, the question raised was whether the patient’s cognitive ability had been sufficiently affected that they did not understand “the nature, purpose and effect of the proffered treatment and the consequences of accepting or rejecting it in the context of the choices available” (Fitzpatrick & Anor -v- K. & Anor, 2008). This three-stage approach previously used in the C Case in England (Re C (Adult: Refusal of medical treatment), 1994), established that the criteria to be adopted were whether the patient understands, weighs up and retains the information, believes the information and whether they could use the information to make a decision. The capacity assessment “must have regard to the gravity of the decision” (Fitzpatrick & Anor -v- K. & Anor, 2008). This was the first case of its kind in Ireland and the decision was monumental in terms of clearly setting out the test for a capacity assessment in Ireland. It also emphasised the right of a person with capacity to refuse treatment and emphasised a presumption of capacity (Madden, 2016, p.423).

As previously stated, since 2009, the Irish Medical Council has recommended the use of a functional capacity test. Similarly in 2013, The Health Service Executive (HSE) National Consent Policy advised all social care and health professionals to adopt the principles of a functional assessment of capacity (Health Service Executive, 2013). The most recent edition of the Irish Medical Council’s Guide to Professional Conduct and Ethics for Registered Medical Practitioners (Amended) 2019 provides clear guidelines in their consent section on assessing mental capacity. “Every adult patient is presumed to have the capacity to make decisions about their own health care” (Irish Medical Council, 2019, Section 10.1). The role of the doctor is to give their patients information in a format that is easy to understand and clear, ensuring they have the appropriate support and help. Those deemed to lack decision- making capacity have the right to the
same respect for their personal integrity and dignity as anyone who has full mental
capacity. The guide acknowledges that some may have long-term impairment of their
capacity while others may be resulting from a short-term illness. Similar to the criteria
in the Assisted Decision-Making (Capacity) Act 2015, “A person lacks capacity to
make a decision if they are unable to understand, retain, use or weigh up the information
needed to make the decision, or if they are unable to communicate their decision, even
if helped” (Irish Medical Council, 2019, Section 10.3). Assessing that a patient lacks
mental capacity at this point in time does not mean that they cannot make other
decisions or that in the future they will lack the capacity to make this or other decisions.
If found to lack mental capacity in Ireland, this can have huge implications of
psychological significance for the person with respect to the person’s dignity and
autonomy, and also from a legal and practical perspective in that it can impact on
whether the person may marry or where they live for example (Madden, 2016, p.414).

1.5.4. Assessment Tools

Despite its origins in legislation, decisional capacity has significant implications
clinically. Before we detail the legislation in Ireland, this section will focus on the tools
that have been devised to help in clinical assessment of mental capacity. For many
decades, research in this area has been led by Appelbaum, Grisso and colleagues who
have been investigating the much under studied area of mental capacity for treatment
decisions in hospital-based patients (Appelbaum and Grisso, 1995, Grisso et al., 1995,
Grisso and Appelbaum, 1995b). In their studies they conceptualised capacity by way of
four abilities (Larkin and Hutton, 2017). Decision-making capacity was initially
assessed using three assessment tools ‘Understanding Treatment Disclosures’ (Grisso
and Appelbaum, 1992), ‘Perceptions of Disorder’ (Appelbaum and Grisso, 1992), and
‘Thinking Rationally About Treatment’ (Grisso and Appelbaum, 1993). Grisso and Appelbaum completed a study on 6 groups: patients hospitalised for schizophrenia, major depression and ischaemic heart disease along with the 3 matched community groups. In this study they used what are now seen as the precursors to the MacCAT-T: understanding treatment disclosures (UTD), Perceptions of Disorder (POD), Thinking Rationally About Treatment (TRAT) and Expressing a Choice (EC) to assess ability to consent to treatment. Significant deficits were found in understanding, reasoning and appreciation of illness in patients with schizophrenia and major depression but were more pronounced in the those with schizophrenia (Grisso and Appelbaum, 1995b). What resulted was an observation that four categories of decision-making competences could be classified; the ability of the individual to understand the relevant information, the ability to appreciate the essentials the information pertaining to the situation, the ability of the individual to manipulate material rationally and the ability of the individual to communicate a choice.

1.5.5. MacCAT-T

The tool resulting from the work of Applebaum and Grisso’s research became known as the MacArthur Competence Assessment Tool-Treatment (MacCAT-T) and is one of the most utilised tools in the field. It remains the most validated mental capacity assessment tool and during capacity evaluations it aims to operate with reliability and objectivity (Murphy et al., 2019). Grisso et al. (1997a) was the initial trial of the MacCAT-T and compared competency in 40 psychiatric inpatients diagnosed with schizophrenia or schizoaffective disorder with 40 matched community subjects without a mental illness. Hospitalised patients scored significantly more poorly in understanding and reasoning.
than the community subjects. Poor performance was associated with higher level of symptoms (Grisso et al., 1997a).

For patients making a treatment decision, the structured assessment of mental capacity can be provided using this standardised test of the MacCAT-T, which is appropriate for use in clinical situations. The assessing clinician is required to use the patient's clinical information, therefore tailoring the MacCAT-T for each individual patient. A trained interviewer carries out this assessment through a semi-structured interview. There are four components assessed: (1) Understanding, (2) Appreciation, (3) Reasoning, and (4) Expressing a Choice.

(1) Understanding

A patient’s ability to paraphrase information that has been disclosed with respect to their disorder, the treatment and its’ risks and benefits are assessed in understanding (Grisso et al., 1997b) In this assessment, a patient's comprehension of their illness, recommended treatment and alternate treatment options, risks and benefits are challenged (Radenković, 2023). This scale is rated from 0 to 6, comprising three sub-scales (1) Understanding Disorder; (2) Understanding Treatment and (3) Understanding Benefits/Risks, with each sub-scale rated from 0 to 2 (Murphy et al., 2018, Grisso et al., 1997a).

In all three sub-scales for ‘Understanding’, a score of 2 is given when the patient has ‘a fairly clear or reasonably accurate understanding’, a score of 1 when the patient ‘shows some recollection but in a way that renders understanding uncertain, with responses that
are too broad or vague to be sure’ and a score of 0 is given when the patient ‘does not recall the content, is clearly inaccurate or describes understanding in a way that seriously distorts its meaning’. The MacCAT-T instructions prompts the assessor to redisclose the relevant information and reassess understanding so that lack of attention is less likely to result in a poor performance score (Grisso et al., 1997a).

(2) **Appreciation**

Some degree of insight is usually required for appreciation of the disorder. Its focus is on how the patient understands how they specifically could be affected by the illness and its treatment. Appreciation is tested by questions which examine the patient’s ability to acknowledge that information regarding the disorder apply to them directly and if the proposed treatment will benefit them specifically in some way. The scale for appreciation is rated for 0 to 4, with two subscales; appreciation of disorder (0-2) and appreciation of treatment (0-2). To be considered as lacking the ability to appreciate the disorder and treatment (a score of 0), the patient’s beliefs are not just seen as a difference of opinion but based on distorted perceptions or are delusional in nature (Grisso et al., 1997b). In the case of partial appreciation, a score of 1 is given when the patient ‘acknowledges manifesting the disorder and some of the disclosed symptoms but does not acknowledge other symptoms that are critical to understanding the disorder and/or its treatment’ or that the ‘patient disagrees or is ambivalent about the existence of the disorder or the symptoms, but for reasons that are vague or not clearly expressed’. For a rating score of 2 the patient acknowledges that they have most if not all of the disclosed symptoms of the disorder or if they do not agree offer ‘reasons that are not delusional and have some reasonable explanation’.
(3) **Reasoning**

Reasoning looks at a patients' problem-solving abilities; the processes behind the decision and ability to compare alternatives in view of the consequences (Murphy et al., 2018, Grisso and Applebaum, 1998). Reasoning assesses the patient’s explanations for their choices, looking at the consequences, comparing alternative treatment options, their ability to generate other consequences and whether their final expressed choice follows logically from this process and is compatible with their reasons (Grisso et al., 1997b, Radenković, 2023). This scale ranges from 0 to 8, consisting of four sub-scales, consequential reasoning, comparative reasoning, generating consequences and logical consistency with each subscale rated from 0 to 2.

For consequential reasoning, a score of 2 indicates that the ‘patient mentions at least two specific consequences when explaining the choice, the consequences may be related to only one or to more than one treatment option’. A score of 1 is awarded if the ‘patient mentions only one specific consequence when explaining the choice’ and a rating of 0 is given if the ‘patient mentions no specific consequences when explaining the choice, even after being asked whether there are any “more specific reasons why that choice seems best”’.

(4) **Expressing a Choice**

The person’s ability to express a choice is scored from 0 to 2. When rating this section, a score of 2 is given if the ‘patient states a choice or indicates desire for professional or other responsible person to make the choice’, 1 is assigned if the ‘patient states two or
three choices, seems ambivalent’ and a score of 0 indicates that the ‘patient states no choice’.

The MacCAT-T takes approximately 15 to 20 minutes to administer. The patient’s own clinical information is used by the clinician in the assessment therefore further individualising the MacCAT-T for each patient (Radenković, 2023). The MacCAT-T measures these four elements of mental capacity on continuous scales with a high degree of inter-rater reliability ranging between 0.99 for “understanding” and 0.87 for “appreciation” (Grisso et al., 1997a, Sturman, 2005b). When added together, these scores yield an overall MacCAT-T score ranging from 0 to 20, with a higher score indicating greater mental capacity for treatment decisions. But even if a participant has a high overall MacCAT-T score they may still lack mental capacity if they perform poorly on a single subscale.

The initial use of the MacCAT-T did not involve establishing cut-off scores to generate categorical assessments of mental capacity; instead, it was encouraged to couple the MacCAT-T with other tools or clinical evaluations to inform mental capacity assessments. However, cut-off scores have been used in various research studies and have clinical utility. For example, Aydin Er and Sehiralti (2014) used the MacCAT-T with a cut-off of ≤4 for understanding, ≤2 for appreciation and ≤5 for reasoning. Expressing a choice was not included in the cut-off. They compared the MacCAT-T results to assessments carried out by physicians, nurses and patient relatives who deemed patients to have full, partial or lack mental competency. The MacCAT-T evaluation statistically differed from the judgement evaluation carried out by physicians, nurses and relatives of patients thus recommending the use of an objective
tool such as the MacCAT-T to guide competency assessments (Aydin Er and Sehiralti, 2014).

Another example is the study by Mandarelli et al. (2014) who used a cut-off criterion for decision making capacity by scoring below 50% on two or more of the four subscales of the MacCAT-T in 30 involuntary and 30 matched voluntary inpatients. In another study Mandarelli et al. (2018) assessed decision making capacity in 131 involuntary patients using the MacCAT-T. This time they used the criteria of having high treatment decision making capacity when patients scored >75% on the first 3 subscales of the MacCAT-T and the maximum score at expressing a choice. Using cut-off scores in this regard gives binary outcomes giving estimates of the prevalence of mental capacity in these patient groups expanding on their value.

Vollmann et al. (2003) compared the assessment of competence of the MacCAT-T using the cut-off scores with clinical assessment in inpatients in accordance with the “MacArthur Treatment Competence Study”(Grisso and Appelbaum, 1995a). The following scores were applied for impaired capacity: understanding ≤4, reasoning ≤3; and zero for each of appreciation of disorder and treatment benefit. Patients’ decision-making capacity was considered to be impaired if they were impaired in at least one.

Kolva et al. (2014) noted that previous studies of the MacCAT-T had used cut-off scores to classify levels of decisional impairment. Building on this work, Kolva et al. (2014) generated scores classifying participants mental capacity as “impaired”, “borderline” or “unimpaired” on each of four subscales (understanding, appreciation,
reasoning and expressing a choice) based closely on the MacCAT-T instrument. For the understanding subscale, scores in the 0 to 2 range were classified as “impaired”; scores of 5 or greater were “unimpaired”; and scores in between these extremes were “borderline”. On the appreciation subscale, scores below 2 were classified as “impaired”; scores of 3 or greater were “unimpaired”; and scores in between were “borderline”. On the reasoning subscale, scores below 4 were classified as “impaired”; scores of 7 or greater were “unimpaired”; and scores in between were “borderline”. On the expressing a choice subscale, scores below 1 were classified as “impaired”; scores of 2 or greater were “unimpaired”; and scores in between were “borderline”. This method is described in Curley et al. (2019b).

As a result, following this re-coding, each subscale score ranged from 0 to 2 where 0 indicated that the participant lacked the ability to perform the task; 1 indicated partial ability; and 2 indicated adequate ability (Kolva et al., 2014). Taken together, these four subscales yielded a second overall mental capacity score ranging from 0 to 8, with a score of 0 indicating lack of mental capacity, 8 indicating full mental capacity, and scores in between indicating partial mental capacity. This method of categorical mental capacity was used by Murphy et al. (2018) and described as above in Curley et al. (2019b), and as part of our research study to be detailed in other chapters.

While the MacCAT-T is presently considered the most widely accepted tool in terms of assessing mental capacity, other instruments are available for the evaluation of patient decision-making capacity.
1.5.6. Other Tools Used to Assess Capacity

1.5.6.1. Hopkins Competency Assessment Test (HCAT)

The HCAT is a semi-structured interview, however it only assesses understanding. Patients are presented with an essay describing the process of informed consent and power of attorney, available in 3 differing grade levels (sixth, eighth and or thirteenth) (Janofsky et al., 1992, Radenković, 2023). Patients are subsequently presented with six questions relating to previously discussed information and comprehension scores assigned, ranging from 0 to 10. Ineffective understanding is suggested by scores of 3 or lower. The HCAT takes approximately 10 minutes to administer, and high inter-observer reliability has been shown (Janofsky et al., 1992, Radenković, 2023). The HCAT evaluates understanding in a generalised manner, it is not specific to a particular treatment decision. Where it may be quick and effective it is not particularly helpful when the aim is to evaluate mental capacity for a specific clinical decision (Barstow et al., 2018).

Jones et al. (1998) assessed competency to consent to treatment using the HCAT as a screening test in an inpatient population diagnosed with chronic mental illness. 84% were judged to be competent to consent to treatment meaning they scored ≥4/10 on the HCAT. Where the HCAT may be overpowered in many ways by the MacCAT-T due to the generic nature of the HCAT and by virtue of the fact that the HCAT scores have relatively limited measures in reflecting the patient's capacity to consent to a specific treatment, the HCAT may however be a helpful resource in recognising quickly those patients who may need a more specific evaluation in clinical settings (Radenković, 2023).
1.5.6.2. **Structured Interview for Competency/Incompetency Assessment**

**Testing and Ranking Inventory (SICIATRI)**

The 12 items of the SICIATRI assess the patient's capacity to provide informed consent. While this is a structured assessment, it is done in such a way that the process of evaluation is as natural as possible between the patient and the physician, assessing the particular features which are distinctive in competency (Kitamura et al., 1998). Items assessed include a patient’s understanding that they have a right to decide; understanding of risks, benefits and the alternative treatments; understanding of risks and benefits anticipated from no treatment; evidencing own choice and insight. It is a 3-point scale for most items. A score of one is given for poor performance on the item; if the patient performs reasonably well but not completely a rating of 2 is given, and 3 is awarded if the patient performs well (Radenković, 2023). Following the interview there are five categories within the 'Ranking Inventory for Competency' with the lowest, level 0, applying to those deemed completely incompetent to the highest, level 4, for completely competent. The SICIATRI helps to come to an objective conclusion of the patients’ competency and can be used in everyday practice taking only 20 minutes to complete (Radenković, 2023).

Some of the other tools used to assess capacity include The Competency Questionnaire (CQ) consisting of 15 questions scored as 1 (competent) or 0 (incompetent) and are summed to give an overall score as used by Melamed et al. (1997b); Consent Rating Scale (CRS) used by Paul and Oyebode (1999) has a hierarchy of levels of competence was designed by Appelbaum and Grisso (1988) to assess competence to consent to neuroleptic medication; and the Korean Tool of Competency to Consent to Psychiatric Admission Treatment in Mentally Ill (KATOC). In their study, Seo and colleagues
found that the KATOC which is based on the MacCAT-T shows relatively high inter-rater agreement (0.831 to 0.958).

Leading on from the clinical assessment using standardised tools, we will look at the assessment of capacity using legal criteria. Unlike the dimensional measures such as those obtained using the MacCAT-T, assessment using legal criteria provides a categorical assessment of capacity. The next section will look at the legislation in Ireland now used to assess capacity.

1.6. Assisted Decision-Making (Capacity) Act 2015

1.6.1. Background

The Assisted Decision-Making (Capacity) Act 2015, signed by President Higgins in December 2015, and commenced in April 2023 is the most significant development in Irish capacity legislation in over a century. There are significant implications as a result of this new framework for patients, their families and healthcare professionals (Kelly, 2017). Until 2023 Ireland has been operating the wardship system legislated under the Lunacy Regulation (Ireland) Act 1871. Under this legislation, the wardship court gained jurisdiction over all matters in relation to the ‘person and estate’ of an individual who was deemed to lack mental capacity. The ward of court framework did not adequately define "capacity"; had insufficient review mechanisms for existing wards of court and was poorly responsive to changes in capacity (Kelly, 2017). Section 7 of the 2015 Act has repealed The 1871 legislation.
As previously stated, the main driving force for change was the signing of the UN CRPD. Leading from the Report of the Law Reform Commission on “Vulnerable Adults and the Law”, the Assisted Decision-Making (Capacity) Act 2015 was born (Madden, 2016, p.424). The 2015 Act was key in being able to ratify the UN CRPD in Ireland which took place in March 2018, and ensured that Ireland was compliant with its obligations under the CRPD. Legislation was needed to comply in particular with Article 12 of CRPD which allows for “equal recognition before the law” (United Nations, 2006). This includes ensuring “that persons with disabilities enjoy legal capacity on an equal basis with others in all aspects of life” (United Nations, 2006); ensuring that appropriate steps are taken “to provide access by persons with disabilities to the support they may require in exercising their legal capacity” (United Nations, 2006, Article 12) and ensuring that “appropriate and effective safeguards to prevent abuse in accordance with international human rights law” are provided. These “safeguards shall ensure that measures relating to the exercise of legal capacity, respect the rights, will and preferences of the person, are free of conflict of interest and undue influence”; that they “apply for the shortest time possible” and “are subject to regular review” by an independent or judicial body (United Nations, 2006, Article 12).

The aim of the Assisted Decision-Making (Capacity) Act 2015 is to reform the law for people whose capacity is, or soon will be, in question and who need help making decisions now or in the future (Assisted Decision-Making (Capacity) Act, 2015). The system provided by the Act is less intrusive, leading to a more flexible and functional approach to assessing capacity. The Assisted Decision-Making (Capacity) Act 2015 provides a modern framework which allows people to retain as much autonomy as possible where they lack capacity or will do so shortly (preamble). Under the Act,
health and social care professionals are obliged as much as possible to support people in making their own decisions, providing as much support as is practicable to assist the person in making such a decision (Health Service Executive, 2017). The Act also allows for individuals to make legally binding agreements with respect to being assisted in their decisions by a person of their choice or the Court can appoint a person for them if they lack the capacity to do so themselves. The CRPD definition of disability in Article 1 includes long-term mental impairments (United Nations, 2006, Article 1) and provides that the presence of a disability does not “justify a deprivation of liberty” (United Nations, 2006, Article 14) nor does it equate to lacking decision-making capacity. The new Assisted Decision-Making (Capacity) Act 2015 adopts this view and makes a presumption of capacity. The rest of this section will give a more detailed overview of the provisions of this Act, which provides for supported and substitute decision making in the form of decision-making assistants, co-decision makers and decision-making representatives. It also addresses the wardship system, Enduring Power of Attorney and Advanced Healthcare Directives.

1.6.2. Principles of Capacity Assessment under the Assisted Decision-Making (Capacity) Act 2015

Under the 2015 Act capacity should be presumed unless there is evidence to the contrary, even if the patient comes to an unwise decision. Part one of the Assisted Decision-Making (Capacity) Act 2015, Preliminary and General, looks at the assessment of capacity which is ‘to be construed functionally’, is issue and time specific, and looks at the way in which a decision is reached (Part 1, Section 3) (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 3).
Section 3(1) stipulates ‘a person’s capacity shall be assessed on the basis of his or her ability to understand, at the time that a decision is to be made, the nature and consequences of the decision to be made by him or her in the context of the available choices at that time’. It gives further provisions that ‘a person lacks the capacity to make a decision if he or she is unable—

(a) to understand the information relevant to the decision,

(b) to retain that information long enough to make a voluntary choice,

(c) to use or weigh that information as part of the process of making the decision, or

(d) to communicate his or her decision (whether by talking, writing, using sign language, assistive technology, or any other means) or, if the implementation of the decision requires the act of a third party, to communicate by any means with that third party’ (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 3(2)).

Section 3 has further significant provisions. It states that ‘a person is not to be regarded as unable to understand the information relevant to a decision if he or she is able to understand an explanation of it given to him or her in a way that is appropriate to his or her circumstances (whether using clear language, visual aids or any other means)’ (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 3(3)).

Section 3(4) clarifies that even though a person only retains the information for a short time such as those with memory deficits, it does not prevent them from ‘being regarded as having the capacity to make the decision.’ Section 3(5) provides for the potential of fluctuating capacity and that a person can recover mental capacity therefore the assessment is time specific: ‘the fact that a person lacks capacity in respect of a decision
on a particular matter at a particular time does not prevent him or her from being regarded as having capacity to make decisions on the same matter at another time.’ (Section 3(5))

Another important aspect dealt with in Section 3(6) highlights that capacity is issue specific. ‘The fact that a person lacks capacity in respect of a decision on a particular matter does not prevent him or her from being regarded as having capacity to make decisions on other matters.’ (Section 3(6)). For example a person may have capacity to decide where they live but not for certain financial matters. Relevant information about the available choices and any reasonably foreseeable consequences of not making the decision must be imparted on the person (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 3(7)).

1.6.3. Guiding principles of the Assisted Decision-Making (Capacity) Act 2015

Guiding principles which are to be applied for the purpose of an intervention are set out in Section 8. An intervention is defined in Section 2 as ‘an action taken under this Act, orders made under this Act or directions given under this Act in respect of the relevant person by—(a) the court or High Court, (b) a decision-making assistant, co-decision-maker, decision-making representative, attorney or designated healthcare representative, (c) the Director, (d) a special visitor or general visitor, or (e) a healthcare professional’ (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 2).

Within these principles a person ‘shall not be considered as unable to make a decision in respect of the matter concerned unless all practicable steps have been taken, without
success, to help him or her to do so.’ (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 8(3)). A person shall not be considered to lack mental capacity to make a decision in respect of the matter concerned simply ‘by reason of making, having made, or being likely to make, an unwise decision.’ (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 8(4)).

The Act provides that there shall be no intervention unless it is necessary to do so, and any intervention shall minimise the restriction of the person’s rights and freedom of action. It is required that the intervention be ‘proportionate to the significance and urgency of the matter’, be ‘as limited in duration in so far as is practicable’ and ‘have due regard to the need to respect the right of the relevant person to dignity, bodily integrity, privacy, autonomy and control over his or her financial affairs and property’ (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 8(6)).

In Section 8(7) the intervener, defined as a person who makes an intervention shall ‘permit, encourage and facilitate, in so far as is practicable, the relevant person to participate, or to improve his or her ability to participate, as fully as possible, in the intervention; give effect, in so far as is practicable, to the past and present will and preferences of the relevant person, in so far as they are reasonably ascertainable; take into account the beliefs and values of the relevant person (in particular those expressed in writing), in so far as those beliefs and values are reasonably ascertainable, and any other factors which the relevant person would be likely to consider if he or she were able to do so, in so far as those other factors are reasonably ascertainable’. Unless it is considered not to be appropriate or practicable by the intervener then the views of any
person named by the relevant person as a person to be consulted on the matter concerned or any similar matter should be considered, and those of any decision-making assistant, co-decision-maker, decision-making representative or attorney for the relevant person. The intervener must act at all times in good faith and for the benefit of the relevant person. The intervener must consider all other relevant and reasonable circumstances and may consider the views of any person engaged in caring for the relevant person; any person who has a bona fide interest in the welfare of the relevant person, or healthcare professionals.

In Section 8(9) in the case of an intervention in respect of a person who lacks capacity, regard shall be given to the likelihood of the recovery of the relevant person’s capacity in respect of the matter concerned, and the urgency of making the intervention prior to such recovery. In this case ‘the intervener, in making an intervention in respect of a relevant person shall not attempt to obtain relevant information that is not reasonably required for making a relevant decision; shall not use relevant information for a purpose other than in relation to a relevant decision, and shall take reasonable steps to ensure that relevant information is kept secure from unauthorised access, use or disclosure, and is safely disposed of when he or she believes it is no longer required’ (Assisted Decision-Making (Capacity) Act, 2015, Part 1, Section 8(10)).

1.6.4. Decision-Making Supports

The 2015 Act articulates a range of decision-making support options for persons whose mental capacity is impaired in relation to a certain matter. There are three levels of decision-making assistance: decision-making assistant, co-decision-maker (joint
decision-maker), and decision-making representative (substitute decision-maker) (Kelly, 2017). These support options assist the move away from the ‘all or nothing’ status of decision-making capacity, supporting people with the functional approach at varying stages and differing abilities to make their own decisions. (Madden, 2016, p. 430) There is also the option of creating an Enduring Power of Attorney or making an advanced healthcare directive.

1.6.4.1. Decision-making assistant

The range of formal decision-making agreements which provide different levels of support starts with the “decision-making assistant”. This is the lowest level for supported decision making provided in part 3 of the Act, where the individual appoints someone to help them to communicate their “will and preferences” and to assist with specific decisions regarding their “personal welfare or property and affairs, or both” (Assisted Decision-Making (Capacity) Act, 2015, Part 3, Section 14(1)). The “decision-making assistant” cannot make a decision either jointly or on behalf of the person, therefore is an assistant role to support and advise the appointer in making their own decision. The decision-making assistant helps “the appointer to make and express a relevant decision”, (Assisted Decision-Making (Capacity) Act, 2015, Part 3, Section 14(1)) and “ensure that the appointer’s relevant decisions are implemented” (Assisted Decision-Making (Capacity) Act, 2015, Part 4, Section 23(2)). There is no procedure for registration of a decision-making assistance agreement. Under Section 15 of the 2015 Act a complaint may be submitted to the Decision Support Service (DSS) if there are concerns that the assistant has not acted within the scope of the agreement. The Director of the DSS can make an application to the court should there be concern over
the matter, and the court can determine if the assistant should no longer act in the
decision-making assistant role in relation to the appointer.

1.6.4.2. **Co-decision-maker**

Where a “co-decision-maker” is deemed necessary, the individual is seen to be of
reduced capacity but would have the capacity to make a specific decision with the joint
authority of a co-decision-maker. This next level of support is either appointed in the
same manner as a “decision-making assistant” or via the Circuit Court. The co-decision-
maker ascertains the appointer’s “will and preferences”, explains relevant information
and makes the decision “jointly” with the appointer. ”Where a co-decision-making
agreement stands registered, a relevant decision made otherwise than jointly by the
appointer and the co-decision-maker is null and void” (Assisted Decision-Making
(Capacity) Act, 2015, Part 4, Section 23(2)). The relevant person does not have the
capacity to make the decisions with a decision-making assistant. For a co-decision-
making agreement, a statement is required by a registered medical practitioner and
another registered healthcare professional such that: the appointer requires assistance
with the relevant decisions within the agreement, they have the decision-making
capacity to enter into the agreement; and that “the appointer has capacity to make the
relevant decisions specified in the co-decision-making agreement with the assistance of
the co-decision-maker” (Assisted Decision-Making (Capacity) Act, 2015, Part 4,
Section 21(4)).

A co-decision-making agreement must be registered to take effect and this registration
must take place within five weeks of signature of the agreement. A copy of the
agreement must be given to the relevant spouse, civil partner, cohabitant or adult children of the appointer along with any other decision-making assistant, representative, attorney or other co-decision maker of the appointer. Notification can be given to the Director of the DSS if there are any objections to the registration. Within 12 months of the co-decision-making agreement and annually thereafter, the co-decision maker must submit a report to the Director of the DSS, which must be approved by the appointer.

In circumstances where it is thought that the person does not have the capacity to make the decision about appointing a co-decision maker, an application can be made to the circuit court. It must state the reason for the application and if there are any known decision-making agreements already in place (Madden, 2016, p.433). The court will then declare whether the person despite assistance lacks the capacity to make the decision or if they have the capacity to make these decisions with or without the assistance of a co-decision maker (Assisted Decision-Making (Capacity) Act, 2015, Part 5).

1.6.4.3. Decision-making representative

The Assisted Decision-Making (Capacity) Act 2015 recognises that there may come a point where despite support, that a person lacks the capacity to make certain decisions. “Decision-making representatives” have the task of substitute decision-making and are the next level of supported decision-making (Kelly, 2015a, Assisted Decision-Making (Capacity) Act, 2015). In this case, where there is no Advanced Healthcare Directive or Enduring Power of Attorney, the court can appoint a “decision-making representative”, or in urgent matters make the decision itself (Health Service Executive, 2017). There
are limitations in place for decision-making representative such that “a decision-making representative for a relevant person shall not have authority to make decisions on behalf of a relevant person other than those specified in the decision-making representation order”. (Assisted Decision-Making (Capacity) Act, 2015, Part 5, Section 44(2)) and they “shall not refuse consent to the carrying out or continuation of life-sustaining treatment or consent to the withdrawal of life-sustaining treatment for the relevant person” (Assisted Decision-Making (Capacity) Act, 2015, Part 5, Section 44(4)).

1.6.5. Planning for future treatment

Difficulties can present for professionals and family members when patients don’t have a formal expression of their wishes documented at a time when they still had mental capacity to make specific decisions. This can lead to conflicting views as to what type of treatment should be delivered to those who no longer have the capacity to make healthcare decisions. A legislative framework is now provided for these matters in Ireland in the form of Enduring Power of Attorney and Advanced Healthcare Directives within the Assisted Decision-Making (Capacity) Act 2015.

1.6.5.1. Enduring Power of Attorney (EPA)

Prior to the 2015 Act, the Powers of Attorney Act 1996 allowed for an individual to appoint an attorney to make decisions with respect to their property, finance or personal care for the time when the donor lacked the capacity to decide on such issues. There was no provision for the attorney to make decisions on health care for the donor (Madden, 2016, p.436). The Assisted Decision-Making (Capacity) Act 2015 rectifies this. Part 7 of the Act allows for an attorney to be appointed in relation to health care issues, but only when the person lacks capacity and “the instrument creating the
enduring power of attorney has been registered”, (Assisted Decision-Making (Capacity) Act, 2015, Part 7, Section 60) will it come into play (Health Service Executive, 2017).

Under Section 59(1) of the 2015 Act “a person who has attained the age of 18 years (in this Act referred to as “donor”) may appoint another person who has also attained that age (in this Act referred to as “attorney”) on whom he or she confers “general or specific authority in matters of the “donor’s personal welfare or property and affairs, or both” which is “conferred subject to conditions and restrictions” (Assisted Decision-Making (Capacity) Act, 2015, Part 7, Section 59(1)).

Section 60 of the Act sets out conditions that must be complied with in setting up an EPA which includes a statement from a legal practitioner that the donor understands the implications of creating the EPA and is not being executed under undue pressure or coercion. Statements by a registered medical practitioner and another healthcare professional must be provided that “the donor had the capacity to understand the implications of creating the power” (Assisted Decision-Making (Capacity) Act, 2015, Part 7, Section 60). The attorney can’t make a decision already covered by an Advanced Healthcare Directive (AHD) made by the donor and does not allow the attorney to refuse life sustaining treatment for the donor (Assisted Decision-Making (Capacity) Act, 2015, Part 7, Section 62(5)).

1.6.5.2. Advanced Healthcare Directives

The aim of an AHD is to promote the individual’s autonomy and respect their will and preferences. According to the 2015 Act, an “advanced care directive is an advance
expression made by the person, in accordance with Section 84, of his or her will and preferences concerning treatment decisions that may arise in respect of him or her if he or she subsequently loses capacity” (Assisted Decision-Making (Capacity) Act, 2015, Part 8, Section 82).

A refusal of treatment set out in an AHD will be adhered to if three conditions are met. At the time of the refusal, the directive-maker lacks the capacity to consent to treatment; the treatment to be refused is clearly expressed in the AHD and finally the situation is clearly set out in which the refusal of treatment is to apply (Assisted Decision-Making (Capacity) Act, 2015, Part 8, Section 84, Kelly, 2017).

The eighth edition of the IMC Guide to Professional Conduct and Ethics states that doctors “are not obliged to provide treatment that is not clinically indicated for a particular patient” (Irish Medical Council, 2019). Similarly in the 2015 Act, a “request for a specific treatment” (Assisted Decision-Making (Capacity) Act, 2015, Part 8, Section 85) is not legally binding and is only taken into consideration. However, it requires that each case would be considered individually.

An AHD does not apply to the administration of basic care where “basic care” includes “(but is not limited to) warmth, shelter, oral nutrition, oral hydration and hygiene measures but does not include artificial nutrition or artificial hydration” (Assisted Decision-Making (Capacity) Act, 2015, Part 8, Section 85, Kelly, 2017). In the case of life-sustaining treatment an AHD is not applicable unless explicitly expressed in the directive that it is to apply to such treatment even if his or her life is at risk.
1.6.6. Ward of Court

Under Part 6 of the Assisted Decision-Making (Capacity) Act 2015, there is a commitment to reviewing all existing Wards of Court within 3 years of commencement. Capacity will be assessed using the functional test for numerous matters of personal welfare, property and affairs. The wardship court shall “declare that the ward does not lack capacity,” (Assisted Decision-Making (Capacity) Act, 2015, Part 6, Section 55(1)) or ”that the ward lacks capacity, unless the assistance of a suitable person as a co-decision-maker is made available to him or her, to make one or more than one decision;” or “that the ward lacks capacity, even if the assistance of a suitable person as a co-decision-maker were made available to him or her.” (Assisted Decision-Making (Capacity) Act, 2015, Part 6, Section 55(1)). Where the wardship court decides that the ward has capacity the ward is immediately discharged from wardship (Assisted Decision-Making (Capacity) Act, 2015, Part 6, Section 55(2)).

1.6.7. Decision Support Service

The Decision Support Service (DSS) is a new service established under the Assisted Decision-Making (Capacity) Act 2015. The DSS define their role which is to:

“promote awareness and provide information about the Act; regulate and register decision support arrangements; maintain a searchable register of decision support arrangements; supervise the actions of decision supporters; maintain a panel of suitable persons who act as decision-making representatives, special visitors and general visitors; investigate complaints” (Decision Support Service, 2023)
It aims to promote human rights in relation to decision support and mental health services. The foundation and operation of this service is an integral part of Ireland’s compliance with Article 12 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) (Decision Support Service, 2023). The DSS will “help to protect and uphold people’s rights to make their own decisions about their personal welfare, property, and affairs” (Decision Support Service, 2023). Core values include dignity and respect for all and a person-centred approach to support and recovery. Their goal is to provide an essential service for people who face difficulties and need support exercising their decision-making capacity (Decision Support Service, 2023). This may include people with mental health difficulties, dementia, an intellectual disability, or an acquired brain injury. It hopes to provide guidance for all people who want to plan for the future, for a time when they might lose their mental capacity.

1.6.8. Conclusion

The practicalities of full implementation of the 2015 Act may prove tough on resources especially when one considers how many people in our aging population are likely to need decision making agreements. But overall, the Assisted Decision-Making (Capacity) Act 2015 has been well received. The “will and preference” approach of the Assisted Decision Making Capacity Act 2015 has helped Ireland to meet particular international human rights standards (Kelly, 2015a). It’s move away from the paternalistic approach of best interests has been welcomed by many human rights advocacy groups (Madden, 2016, p.425). In contrast to the “Best interests” approach of the Mental Capacity Act 2005 in England and Wales, which is also at the core of the Mental Health Act 2001, the Assisted Decision-Making (Capacity) Act adopted a “will and preferences” approach. The Steering Group, in its review of the MHA 2001 have
suggested use of “best interests” is” paternalistic” (Steering Group on the Review of the Mental Health Act, 2012). Overall, The Assisted Decision-Making (Capacity) Act 2015 has helped repeal the archaic wardship system, gives clear guidelines and legislates for a functional test of capacity with decision-making supports of various levels to help those whose capacity is, or soon will be, in question. Undoubtedly however, difficulty will arise in respect of the subtle decisions to be made. For example there is very little to distinguish between the need for a ”decision-making assistant” and ”co-decision-maker”. Another example is in the case of a co-decision-making agreement where the medical practitioner and other healthcare professional must state that the person ”requires assistance in exercising his or her decision-making” but ”has capacity to make a decision to enter into the co-decision-making agreement” (Kelly, 2017). We are still very much in the early days of the Assisted Decision-Making (Capacity) Act 2015. It will be interesting to see the uptake on its provisions in the near future.

1.7. The Mental Health Act 2001

1.7.1. Introduction

Replacing the 1945 Mental Treatment Act, The Mental Health Act (MHA) 2001, was signed into law in July 2001, but it was not fully implemented until November 2006. It primarily looks at the criteria for detention to an approved mental health centre of the involuntary patient alongside the standard of care and review they receive. The purpose of the Act is

“to provide for the involuntary admission to approved centres of persons suffering from mental disorders, to provide for the independent review of the involuntary admission of such persons and, for those purposes, to provide for the establishment of a mental health commission and the appointment of mental health commission tribunals and an
Attempts to reform mental health in Ireland began many years before the Mental Health Act 2001. In 1995 the Department of Health issued the “White Paper” entitled “A New Mental Health Act”, which gave recommendations for new legislation for mental health. Provisions for involuntary admission proceedings for those who needed treatment of a mental illness and narrow criteria for detaining those in need of such treatment in approved centres were advised in this modern framework. It was also to enable the regulation of treatment, monitoring and inspection within the mental health services (Department of Health, 1995). Human rights and obligation to conform to the international standards of the European Convention on Human Rights was again the primary impetus for speedy reformation in Ireland (Department of Health, 1995, p.1). Also following the cases of Croke v Ireland and O’Reilly v Ireland and which were admissible before the ECHR under article 5(4) and 5(1)(e) of the Convention, there was increasing pressure for this legislative change. Finally in 2001 the Mental Health Bill 1999 passed through the Oireachtas and the long awaited Mental Health Act 2001 was implemented in 2006.

1.7.2. Defining Mental Disorder

Part one of the Mental Health Act 2001, Preliminary and General defines “mental disorder” as “mental illness, severe dementia or significant intellectual disability” (Mental Health Act 2001, Section 3(1)). Section 3(1) of the 2001 Act provides the criteria for detention as follows:
(a): “because of the illness, disability or dementia, there is a serious likelihood of the person concerned causing immediate and serious harm to himself or herself or to other persons”, or

(b) “(i) because of the severity of the illness, disability or dementia, the judgment of the person concerned is so impaired that failure to admit the person to an approved centre would be likely to lead to a serious deterioration in his or her condition or would prevent the administration of appropriate treatment that could be given only by such admission, and

(ii) the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent” (Section 3(1)).

1.7.3. Best Interests

The Mental Health Act 2001 provides that “the best interests of the person shall be the principal consideration” (Mental Health Act 2001, Section 4(1)). In section 4(3) it states that while making decisions under the Act “due regard shall be given to the need to respect the right of the person to dignity, bodily integrity, privacy and autonomy” (Mental Health Act 2001, Section 4(3)). Unfortunately, there was no definition of the term “best interests” provided in the Mental Health Act 2001, which has led to an overly paternalistic interpretation by the Courts of the Act. In MR v Byrne and Flynn, a case heard by the High Court, Mr. Justice O'Neill expressed that he felt it appropriate to interpret that the Mental Health Act 2001 in a paternalistic manner where it is to be regarded in the same way as the Mental Treatment Act of 1945, as of a paternal
character, clearly intended for the care and custody of persons suffering from mental disorder” (Kelly, 2014a, p77, MR v Cathy Byrne, 2007, p.14).

This excessive emphasis on paternalism has not gone without criticism. Concern was expressed due to the paternalistic interpretation of “best interests” by the Courts in The Interim Report of the Steering Group on the Review of the Mental Health Act 2001 (Steering Group on the Review of the Mental Health Act, 2012). The Steering Group also called to move “away from ‘best interests’” and promote patient autonomy (Steering Group on the Review of the Mental Health Act, 2012). The Assisted Decision-Making (Capacity) Act 2015 keeps in line with these recommendations by legislating for a “will and preferences” approach (Assisted Decision-Making (Capacity) Act, 2015, preamble). Some of the recommendations of the Steering Group Review of the Mental Health Act 2001 have been acknowledged and implemented. Changes to date are legislated within the Mental Health (Amendment) Act 2018 and will be reviewed in section 1.7.7.

1.7.4. Involuntary Admission to an Approved Centre

The involuntary admission of persons to approved centres falls under the legislation of Part 2 of the Mental Health Act 2001. It looks at the treatment of a mental disorder and at the persons rights after admission. “A person may be involuntarily admitted to an approved centre” (Section 8(1)) and detained if they are found to be “suffering from a mental disorder” (Section 8(1)). If a person is “suffering from a personality disorder”, are “socially deviant” or are “addicted to drugs or intoxicants” they cannot be detained under the 2001 Act (Section 8(2)).
An application for a medical recommendation for detention under the Mental Health Act 2001 can be made by a person who has seen the person of concern within the last 48 hours. The application can be made by the spouse or a relative, “an authorised officer”, a member of the Garda Siochana, or in their absence any other person (Mental Health Act 2001, Section 9(2)). A recommendation for involuntary admission is made by a registered medical practitioner. The registered medical practitioner cannot be a member of the staff of the concerned approved centre and they cannot be related to the person. Once the registered medical practitioner receives the application, they have 24 hours to review the person. If the medical practitioner believes following their examination that the person is suffering from a mental disorder and fits the criteria for detention as detailed above in section 1.7.2, then he or she will make a recommendation.

An examination of the person must be carried out by a consultant psychiatrist within 24 hours of arrival of the person in the approved centre. The registered consultant psychiatrist will either complete the “admission order” or if they do not feel that the person fulfils the criteria for such an admission not complete such an order. Once an involuntary admission is authorised, the admission order is valid for 21 days, within which time a mental health tribunal must take place. A legal representative is assigned to every involuntary patient. The Mental Health Commission independently reviews the detention of people. Legislation for this is provided within part 3 of the Mental Health Act 2001 (Section 32(1)). An admission order can then be extended following a mental health tribunal. A “renewal order” can last up to 3 months, which again can be extended by 6 months following a further mental health tribunal. Subsequent renewal
orders can last for up to 12 months. Any extension can only take place following mental health tribunals where there is no revocation of the admission order. Each mental health tribunal is organised by the Mental Health Commission. A panel consists of 3 members made up of a solicitor or barrister, a consultant psychiatrist, and one other person. An independent psychiatrist must also review the patient’s notes, examine the patient, and speak with the treating consultant prior to the tribunal. The tribunal panel review the detention and decide whether to affirm or revoke the order by a majority vote. This is based on whether they are satisfied that the patient is suffering from a mental disorder and fulfils the criteria for ongoing detention under the Mental Health Act 2001 (Section 18(1)).

The treating consultant psychiatrist can revoke the relevant admission or renewal order, and discharge the patient when they are of the opinion that the patient “is no longer suffering from a mental disorder”. The patient can be offered a voluntary admission at this point and may choose to stay as a voluntary patient for a period if they wish (Section 28(1)).

A detained patient can appeal the mental health tribunal’s decision through the Circuit Court. This is in keeping with the Mental Health Act’s ethos to respect the patients right to liberty. However, this appeal can only take place if they are “not suffering from a mental disorder” (Section 19(1)).

A noteworthy point from its “General Comment No. 1” on Article 12 of the CRPD, is that all mental health legislation that permits forced treatment must be abolished to
comply with Article 12, therefore Ireland is in breach of this. This is an area of much debate. That said even if further progress is needed in Ireland and despite this breach of Article 12, the Mental Health Act 2001 has significantly improved Ireland’s adherence to human rights standards (Curley et al., 2016).

1.7.5. Detaining the Voluntary Patient

A voluntary patient who wishes to leave an approved centre can be detained for up to 24 hours under the Mental Health Act 2001 if a mental health professional believes that the person is suffering from a mental illness. Section 23(1) of the 2001 Act gives a mental health professional this power to prevent a voluntary patient from leaving a psychiatric hospital (Mental Health Act 2001, Section 23(1)). A consultant psychiatrist must then review the concerned patient within 24 hours to determine if they are detainable under the Mental Health Act 2001 (Section 23(1)). Following this assessment, the consultant psychiatrist will either discharge the patient if they do not meet the criteria for detention or arrange for a second consultant psychiatrist to examine the patient (Section 24(1)). If the second psychiatrist is also satisfied that the person is detainable under the Mental Health Act 2001 because of their mental disorder, an admission order is completed by the treating consultant psychiatrist for a period of 21 days. After this point, the procedure for a mental health tribunal and renewal orders follows that of a direct involuntary admission.

1.7.6. Consent and Capacity within the Mental Health Act 2001

Section 57(1) of the Mental Health Act states that the consent of a patient is “required for treatment” and “consent”, in relation to a patient, means consent obtained freely without threats or inducements” (Section 56(1)). However, if the treating consultant
psychiatrist “is of the opinion that the treatment is necessary” to save a patient’s life, to restore their health, to alleviate their condition, or ease their suffering,” (Section 57(1)) and by reason of his or her mental disorder the patient concerned is incapable of giving such consent”, consent is not required.

Section 60 of the Mental Health Act 2001 looks at those who have been given medication to ameliorate their mental disorder for 3 months continuously. Originally the Act stated that medication shall not be continued without the patient’s consent, but makes exceptions for those who are “unable or unwilling” (Section 60) to consent. The use of “unwilling” to give consent does not allow for the person to decline if they have the capacity to do so. In the interest of self-determination and patient autonomy the use of “unwilling” was not satisfactory. Indeed, it went against section 57(1) of the MHA which as previously mentioned states that the consent of a patient is “required for treatment” (Section 57(1)) except in certain circumstances where due to their mental disorder the patient is not capable of giving consent (Section 57(1)). We see here that the Act contradicted itself or at least was not explicit enough. The word “unwilling” allowed for paternalism with no reference to a patient’s capacity (Steering Group on the Review of the Mental Health Act, 2012).

There was a similar problem with section 59 which looks at the administration of Electro-Convulsive Therapy (ECT). ECT could be administered only where there was written consent of the patient or, if “the patient is unable or unwilling to give such consent” ECT must be approved by the treating consultant and a second consultant
psychiatrist (Section 59(1)). Again, the use of “unwilling” did not allow for those involuntary patients who have capacity, to refuse, and have their decision respected.

This issue was addressed in changes to legislation in the Mental Health (Amendment) Act 2015. This was implemented on 15 February 2016 and removed the word “unwilling” from both section 59 and 60, meaning that those involuntary patients who have capacity to refuse ECT or the administration of medication after 3 months may do so. Therefore, these treatments can only be given without the consent of an involuntary patient where they have been assessed as unable to consent, that is that they lack the capacity to do so (Mental Health (Amendment) Act 2015).

1.7.7. The Voluntary Patient

As it stands, the Mental Health Act 2001 defines “voluntary patient” as “a person receiving care and treatment in the approved centre who is not the subject of an admission order or renewal order” (Section 2(1)). This definition describes what a patient is not but does not make any reference to consent or capacity to consent to admission, therefore can include those who are not detained under the Mental Health Act 2001 but may lack capacity to consent to such an admission. The Irish Human Rights Commission are among the organisations who have expressed concern about this definition of voluntary patient which is not in keeping with international human rights standards (Department of Health, 2015, p. 30).

In the Report of the Expert Group on the Review of the MHA 2001 it was suggested to change the definition of voluntary patient. The Expert Group felt that the definition of a
voluntary patient needed to be “an active definition of what it is rather than a definition of what it is not” (Department of Health, 2015, p.29). The advised that “a voluntary patient should be defined as a person who has the capacity (with support if required) to make a decision regarding admission to an approved centre and who, where the person retains capacity, formally gives his/her informed consent to such admission, and subsequent continuation of voluntary inpatient status and treatment on an ongoing basis as required” (Department of Health, 2015, p.29). As this research will demonstrate many of the “voluntary” patients lack the capacity to consent to treatment and admission. They are voluntary patients merely by the fact that they have not objected to admission (Department of Health, 2015).

This is not to say that anyone who is mentally unwell lacks capacity, in fact capacity, as already highlighted, should be assumed unless otherwise indicated and persons with mental illness should not be excluded from the decision-making process.

The Mental Health (Amendment) Act 2018 has legislated for these changes recommended by the Expert Group but has yet to be commenced. It provides for amendments to Section 2 of the Mental Health Act 2001 by substitution of the definition of ‘voluntary patient’ whereby a

“‘voluntary patient’ means a person who—

(a) has capacity (within the meaning of section 3 of the Act of 2015),

(b) has been admitted to an approved centre, and

(c) has given consent to his or her admission.”
1.7.8. Protection of Rights of the Voluntary Patient

As it stands, The Mental Health Act 2001 offers no provisions for the voluntary patients who do not refuse admission described by Kelly as the “incapacitated, non-protesting patients” (Kelly, 2015b, p.84). They are included in what Kelly also refers to as “Ireland’s distinctly paternalistic definition of voluntary patient” (Kelly, 2015b, p.84).

In the UK this situation was brought to light when a case of a voluntary patient who lacked capacity was admitted to a hospital in the UK. HL, who suffered from severe autism, lacked capacity to consent to or decline a voluntary admission to a psychiatric hospital. It was believed that he was not deprived of his liberty because he complied with such an admission. However, Article 5 of the ECHR states that

“everyone has the right to liberty and security of person. No one shall be deprived of his liberty (unless) in accordance with a procedure prescribed in law” and that “everyone who is deprived of his liberty by arrest or detention shall be entitled to take proceedings by which the lawfulness of his detention shall be decided speedily by a court and his release ordered if his detention is unlawful” (United Nations, 2006, Article 5).

This UK case ended up in the European Court of Human Rights (ECtHR). Commonly known as the “Bournewood” case, HL v United Kingdom (2004), the ECtHR found that the voluntary admission of a man who clearly lacked capacity amounted to a breach of Article 5(1) and (4) of the European Convention on Human Rights (ECHR) due to the absence of access to external review and procedural safeguards (H.L v. The United Kingdom, 2004).
Following on from this ruling there was an amendment to the Mental Capacity Act 2005 known as “The Deprivation of Liberty Safeguards” (Mental Capacity Act 2005, Section 4(a)). This safeguarding procedure within the Mental Capacity Act in England and Wales legislates for when it is necessary to deprive a person of their liberty by admission to a care home or hospital due to their lack of capacity. A court order authorises this deprivation of liberty safeguard. Informal admission is common practice in Ireland under current legislation and it could be argued that the objective of this is to avoid stigmatising patients. However, there are certainly ethical and human rights issues of concern in this and other situations within mental health and capacity, whereby Irish legislation needs to be updated.

1.7.9. Mental Health (Amendment) Act 2018

The Mental Health (Amendment) Act 2018 which has yet to be commenced will replace the existing principle of ‘best interests’ for adults with its new guiding principles. This will also be in keeping with the recommendations of the Expert Group and will bring mental health legislation in line with the provisions of The Assisted Decision-Making (Capacity) Act 2015, such that the person’s ‘will and preferences’ are to be respected and empowers people to make decisions regarding their care (Mental Health Reform, 2021). The Amendment Act 2018 will also provide a new definition of a voluntary patient as one who has the capacity and consent to admission as detailed in section 1.7.7.

Within The Mental Health (Amendment) Act 2018, the act referred to as The Principal Act is the Mental Health Act 2001 with guiding principles substituting Section 4 of The
Principal Act. The Amendment Act states that “where it is proposed to make a decision in respect of a person…. the person shall, so far as is reasonably practicable, be notified of the proposal and entitled to make representations in relation to it“ (Section 4(1)).

In accordance with the provisions of The Assisted Decision-Making (Capacity) Act 2015, capacity is to be presumed unless the contrary is shown; a person is not to be considered as unable to make a decision unless all practicable steps have been taken to help them without success; a person is not to be deemed as unable to make a decision by reason of having made an ‘unwise decision’; no decision is to be taken in respect of a person unless it is necessary to do so taking the individual circumstances of that person into consideration; a decision taken in respect of a person shall be such that it ‘minimises the restriction of the person’s rights’ and freedom of action; a decision must ‘respect the right of the person to dignity, bodily integrity, privacy, autonomy’; any decision must be proportionate to the significance and urgency of the matter, and “have due regard to the need to have access to health services that have as the aim of those services the delivery of the highest attainable standard of mental health as well as the person’s right to his or her own understanding of his or her mental health”( Section 4(7)).

In making a decision the person shall be encouraged and facilitated as far as is practicable to participate in, or improve their ability to participate in, making a decision with consideration to be taken of the person’s past and present ‘will and preferences’, their ‘beliefs and values’ especially those expressed in writing by the person, in so far as those preferences and values are reasonably ascertainable. There should be
consideration of the views of other persons named to be consulted on the matter unless
not appropriate or practicable to do so. The person making the decision on behalf of
another ‘shall act at all times in good faith and for the benefit of the person in respect of
whom the decision is being made’. All circumstances should be taken into consideration
including, where appropriate, the views of any person engaged in caring for the person
or who has a bona fide interest in the welfare of the person, or any other healthcare
professionals. Where a decision is made in respect of a person who lacks capacity to
make that decision, regard must be given to ‘the likelihood of the recovery of the
person’s capacity in respect of the matter concerned’, and the urgency in making such a
decision prior to recovery. The person making the decision should only seek
information that is considered reasonably required for making that decision; only use
the information for the purpose of that decision and take steps to ensure the information
is kept secure and safely disposed of when it is no longer needed with respect to the
decision.

Commencing The Amendment Act will be a positive step towards fulfilling
international human rights law including the UN Convention on the Rights of Persons
with Disabilities and the European Convention on Human Rights, with which current
legislation is not compliant (Mental Health Reform, 2021).

1.7.10. Conclusion

Mental health practice in Ireland has been reformed by the implementation of the
Mental Health Act 2001. This Act legislates for involuntary admissions and for the
review of proceedings of involuntary detentions in approved centres. The Mental Health
Commission is an independent statutory body which has oversight of these proceedings in approved centres. In order to protect the detained patient the Mental Health Commission ensures that the detained person has access to a legal representative, an independent consultant psychiatrist’s opinion and a Mental Health Tribunal (Ramsay et al., 2013). However, challenges remain in mental health legislation especially when it comes to autonomy, consent, and capacity. Overall, the rights of the detained patient have improved with the Mental Health Act 2001, but reform is still needed in areas (Ramsay et al., 2013). A prime example of this is the “best interests” framework. The paternalistic interpretation by the courts due to its lack of definition or guidelines has raised concerns about trying to balance the State’s obligation to protect the vulnerable and society and an individual person’s autonomy. The involuntary patient detained under the Mental Health Act 2001 benefits from external review of proceedings under the Mental Health Commission in contrast to the “voluntary patient” who is not protected to this extent with a lack of clear legislation. In the Mental Health (Amendment) Act 2018 there will be a new definition of “voluntary patient” and ‘will and preferences’ are to be considered. We await the commencement of the Mental Health (Amendment) Act 2018 which will provide clarity for some of the human rights concerns highlighted by the Expert Group in their review of the Mental Health Act 2001.

1.8. The Interface of the Mental Health and Capacity Legislation

1.8.1. Introduction

Previous sections have detailed the provisions within the Mental Health Act 2001 and the Assisted Decision-Making (Capacity) Act 2015 individually. This section will explore their intersection and the potential for discrepancy between them as they stand.
It will also look at the changes to the MHA 2001 within the Mental Health (Amendment) Act 2018 which addresses some of the shortfalls in mental health legislation. But firstly, this section will detail a different approach to legislation, one which combines both mental health and capacity legislation in one framework.

1.8.2. Fusion Approach

Mental health legislation has been described as discriminatory owing to the fact that some people suffering with a mental illness are treated differently to those without a mental disorder (Szmukler and Kelly, 2016). As is the case in most jurisdictions including Ireland, there is separate legislation for the involuntary treatment of a mental disorder. This does not extend to the compulsory treatment of a medical illness. The two common criteria for involuntary or compulsive treatment are the presence of a mental disorder and the risk of harm to the person or to others. Szmukler advocates strongly for this ‘disorder and risk’ commitment legislation, where decision-making capacity does not factor in the involuntary detention process, to be replaced (Szmukler and Kelly, 2016). Szmukler believes that to eliminate discrimination there are two possible solutions. The first would be that “mental health-type law” be adopted for all medical conditions. However, this would be a paternalistic approach, disempowering patients. The second option, a “capacity and best interests” schema could be adopted for mental disorders which is supportive of self-determination (Szmukler and Kelly, 2016). Szmukler proposed a ‘fusion law’ which would be applicable across all settings, a ‘capacity and best interests’ framework which would include treatment decisions for both psychiatric and non-psychiatric disorders and social care needs (Szmukler and Kelly, 2016). Therefore, involuntary treatment would require that two criteria are met: impaired decision-making capacity and that the treatment is deemed to be in the
person’s best interest, with the fusion approach building on the strengths of the
capacity-based legislation.

The Mental Capacity Act (Northern Ireland) 2016 is an example of fusion legislation,
containing both capacity and mental health legislation in one act. This single legislative
approach provides improved protections for those who lack decision-making capacity
with respect to their mental or physical health. For those suffering from a mental
disorder, this will ensure that there is less stigma attached to the process (Kelly, 2015c).

In the early 2000’s in Northern Ireland, The Bamford Review led the way for a lengthy
process of examination of policy, law and provisions affecting people with disabilities
and mental health needs (Farrell and Hann, 2020). One of the outcome reports of the
Review recommended comprehensive reform of capacity and mental health legislation
in Northern Ireland. It was advised that this be a rights-based approach and include the
key principles of autonomy and respect (Davidson et al., 2003). The Review took a
social model approach to mental disabilities and recognised that a range of barriers
prevent people with mental health difficulties or an intellectual disability exercising
and Wales with separate mental health and mental capacity legislation, a comprehensive
approach was sought by the Review limiting the need for multiple legal frameworks
legislating for similar situations (Harper, 2016). The Mental Capacity Bill, a draft
proposal for the new legislation, was produced and introduced into the Northern Ireland
Assembly in 2015. The approved result was The Mental Capacity Act (Northern
Ireland) 2016, which contains both capacity and mental health legislation in one act.
Since 2016 the Northern Ireland Department of Health has been working on a phased implementation of The Mental Capacity Act (Northern Ireland) 2016 (Farrell and Hann, 2020). This legislation aims to provide enhanced protections for those who lack capacity to make decisions with respect to their mental or physical health. Decisions on the treatment of patients who lack mental capacity are taken under common law where decisions are based on the doctrine of necessity (best interests) and on a presumption of capacity (Lynch et al., 2017). This act states that an “act must be done, or the decision must be made, in the person’s best interests” (Mental Capacity Act (Northern Ireland) 2016, Part 1, Section 2(2)). In contrast to the Mental Health Act 2001, The Mental Capacity Act (Northern Ireland) 2016 also contains detailed guidelines to prevent paternalistic interpretation of best interests.

To date there has only been partial enactment of the Mental Capacity Act (Northern Ireland) 2016, which includes the Deprivation of Liberty Safeguards scheme. This scheme alongside a Code of Practice provides that there is to be a presumption of mental capacity with the burden of proof lying on those seeking to assert incapacity to show evidence to the contrary (Farrell, 2022). Involuntary admission for the treatment of a mental disorder in Northern Ireland continues to be provided for under Mental Health Order 1986 until the full commencement of Mental Capacity Act (Northern Ireland) 2016. The Mental Health Order is outdated and not compliant with human rights, but its provisions remain until the full enactment of the Mental Health Capacity (Northern Ireland) Act 2016.
1.8.3. Best interests and Other Jurisdictions

As explored previously in this chapter, the principle of “best interests” is used in the MHA 2001 and at present applies to all detained patients (Kelly, 2015b, p.98). The CRPD requires that “the best interests of the child shall be a primary consideration” in “all actions concerning children with disabilities” (United Nations, 2006, Article 7(2)). However, the “best interests” approach is applied to children only by the CRPD. There is no reference to the best interests of adults with disabilities (Kelly, 2015b, p. 99).

The Assisted Decision-Making (Capacity) Act 2015 is a positive step in the move away from paternalism and ‘best interests’. In fact, the departure from ‘best interests’ is a noticeable difference between the English and the new Irish Capacity legislation. In theory, there will be occasions where there is conflict between what objectively would benefit the patient compared to what the patient themselves might express as their will and preference, but the 2015 Act states that the person’s ‘will and preference must be given effect as far as is practicable’. This differs from the Mental Capacity Act 2005 which requires that a person’s wishes must be considered by the intervener (Madden, 2016, p.429). In Scottish legislation, the Adults with Incapacity (Scotland) Act 2000 provides “there shall be no intervention in affairs of an adult unless the person responsible for authorising or effecting the intervention is satisfied that the intervention will benefit the adult and that such benefit cannot reasonably be achieved without the intervention” (Adults with Incapacity (Scotland) Act 2000 , Section 1(2)).

The omission of “best interests” from the Assisted Decision-Making (Capacity) Act also contrasts with the Mental Capacity Act (Northern Ireland) 2016. The Northern Irish 2016 Act legislates that when “(a) an act is done for or on behalf of a person who is 16 or over and lacks capacity in relation to whether the act should be done; or (b) a
decision is made for or on behalf of a person who is 16 or over and lacks capacity to make the decision” then “the act must be done, or the decision must be made, in the person’s best interests” (Section 2). However, Section 7 of the Mental Capacity Act (Northern Ireland) 2016 provides guidelines for the “best interests” principle to avoid paternalistic interpretation. These include that the person must give special regard to the person who lack’s capacity (“P”) “past and present wishes and feelings”; “the beliefs and values that would be likely to influence P’s decision if P had capacity; and the other factors that P would be likely to consider if able to do so” (Mental Capacity Act (Northern Ireland) 2016, Section 7(6)). Within this Section the 2016 Act also provides that the person making the determination as to whether “P” has capacity “must not make it merely on the basis of (a)P’s age or appearance; or (b)any other characteristic of P’s, including any condition that P has, which might lead others to make unjustified assumptions about what might be in P’s best interests” (Section 7(2)).

1.8.4. The Voluntary Patient and Capacity

Under the Assisted Decision-Making (Capacity) Act 2015, there is a presumption of capacity which applies to all persons. The provisions within the Assisted Decision-Making (Capacity) Act 2015 apply equally and fully to those being treated for a mental disorder in an approved centre. Therefore, it is only when a person’s capacity is in question that a functional test of capacity would be carried out. However, there are still issues that raise concern when it comes to the voluntary patient who lacks capacity. As it stands The Mental Health Act 2001 defines a “voluntary patient” as “a person receiving care and treatment in the approved centre who is not the subject of an admission order or renewal order” (Mental Health Act 2001, Section 2(1)). A voluntary patient under the Mental Health Act 2001 does not have to possess decision-making
capacity. Presently, given this definition, regardless of their capacity a “voluntary patient” in an approved centre has the right to consent to or refuse treatment in relation to their mental health. This is one of the problems with the legislation as it stands however reform of this is provided within the Mental Health (Amendment) Act 2018, once it is commenced as detailed in section 1.7.9.

Cases regarding the voluntary patient status and capacity have been brought before the courts. The case of E.H. v Clinical Director of St Vincent’s Hospital in the Irish Supreme Court sought a declaration that the Mental Health Act’s definition of “voluntary patient” was not compatible with Article 5 of the ECHR, the right to liberty and security. EH was originally an involuntary patient but her renewal order was revoked by the Mental Health Tribunal. She remained a voluntary patient, but it was recorded in her clinical file that she did not have the mental capacity to consent to a voluntary admission. The Mental Health Act 2001 can only provide for the detention of a voluntary patient if they request to leave the approved centre. It is only at this point that the person can be held for up to 24 hours for further review under section 23(1) as previously detailed in section 1.7.5.

In his ruling in this case in the Irish Supreme Court, Kearns, J. stated:

“The terminology adopted in s.2 of the Act ascribes a very particular meaning to the term ‘voluntary patient’. It does not describe such a person as one who freely and voluntarily gives consent to an admission order” (E.H. v Clinical Director of St Vincent’s Hospital, 2009).

Kearns J also stated:
“Any interpretation of the term in the Act must be informed by the overall scheme and paternalistic intent of the legislation as exemplified by the provisions of sections 4 and 29 of the Act” (E.H. v Clinical Director of St Vincent’s Hospital, 2009).

With respect to Section 4 of the Mental Health Act 2001, Davidson usefully noted that ‘best interests’ should refer to the best interests of respecting a person’s human rights and does not only mean the patient’s medical best interests (Davidson, 2016). One could be critical of Kearns’ ruling in this case, however the legislation on which he based his judgement clearly needs to be amended. This has now been provided for within the Mental Health (Amendment) Act 2018 but has yet to be commenced. This had also been advised in the Report of the Expert Group on the Review of the MHA 2001 (Department of Health, 2015). The definition of a “voluntary patient” within the Mental Health (Amendment) Act 2018 defines a ‘voluntary patient’ as “a person who: (a) has capacity (within the meaning of section 3 of the Act of 2015), (b) has been admitted to an approved centre, and (c) has given consent to his or her admission” (Section 2(1)(b)).

The purpose of the Mental Health (Amendment) Act 2018 is to provide “An Act to amend and extend the Mental Health Act 2001; to make further and better provision relating to the treatment of persons under the Mental Health Act 2001; to improve the provision of mental health services; to promote the rights of persons subject to the Mental Health Act 2001; and to provide for related matters.”

If we look at the ruling in the case of M v. Ukraine in the ECtHR:
“The Court takes the view that a person’s consent to admission to a mental health facility for in-patient treatment can be regarded as valid for the purpose of the Convention only where there is sufficient and reliable evidence suggesting that the person’s mental ability to consent and comprehend the consequences thereof has been objectively established in the course of a fair and proper procedure and that all the necessary information concerning placement and intended treatment has been adequately provided to him” (M v. Ukraine, 2012, para 77).

Clearly the Mental Health Act 2001 does not meet these terms, with the Expert Group on the Review of the MHA advising that:

“all voluntary patients on admission to an approved centre should be fully informed of their rights, including information relating to their proposed treatment as well as their rights regarding consent or refusal of treatment and their right to leave the approved centre at any time’ (Department of Health, 2015, recommendation 25).

1.8.5. The Principles of the Capacity Assessment- Specification

The Assisted Decision-Making (Capacity) Act 2015 assumes that a person “has capacity in respect of the matter concerned unless the contrary is shown” (Section 8(2)), and they “shall not be considered as unable to make a decision in respect of the matter concerned unless all practicable steps have been taken, without success, to help him or her to do so” (Section 8(3)). This is also to be applied to mental health and is expressed in the Mental Health (Amendment) Act 2018 which was previously detailed.
However, as Herissone-Kelly points out “no judgment of such a lack [of capacity] can
legitimately be made in the absence of a proper assessment of a person’s capacity”
(Herissone-Kelly, 2010). With the 2015 Act in Ireland there is the presumption of
capacity despite a person’s physical or mental illness, age or even if they have come to
what is deemed to be an unwise decision. When mental capacity is to be assessed for a
particular person, it is issue specific and time specific. That is to say, using the
functional approach to capacity a person who lacks the mental capacity to make one
decision does not necessarily lack the capacity to make decisions on other matters; this
also stands with respect to having mental capacity for the same matter at another time. It
is widely acknowledged that there are many people whose decision-making ability may
be affected by an acute or chronic illness or a disability which has the potential to affect
capacity on a permanent or temporary basis. However, with the correct support as
provided for within the 2015 Act, those affected can continue to exercise their right to
make autonomous decisions.

There is a potential for conflict within the guiding principles of the Assisted Decision-
Making (Capacity) Act 2015. For example, when the relevant persons known preference
is a treatment of prolonged duration or in keeping with an unwise decision. Should the
intervener proceed with this “unwise” decision with respect for autonomy, “beliefs and
values” and “will and preferences” taking precedence over a wise decision of shorter
duration? The 2015 Act appears to allow for the intervenor knowing a person’s “will
and preferences” to make unwise decisions on behalf of the person. In the absence of an
Enduring Power of Attorney or Advanced Healthcare Directive where preferences and
expressed wishes are documented clearly, some healthcare treatment decisions can be
very difficult. Similar concerns regarding the Mental Capacity Act 2005 are highlighted
by Herissone-Kelly where there may be an intervention which is not necessarily the least restrictive option but is seen to be in the person’s “best interests”. “For situations such as these, we need to know whether it is the patient’s best interests or her rights and freedoms that ought to be given greater weight and so which ought to act as a constraint on the other” (Herissone-Kelly, 2010).

1.8.6. Decision-Making Assistance and Mental Health

The Assisted Decision-Making (Capacity) Act 2015 and The Mental Health Act 2001 legislate for different circumstances such that one act is not a substitute for the other. Patients receiving voluntary treatment for their mental health, either in an approved centre or in the community have the same rights with respect to decision-making and decision-making supports as those being treated for a physical illness. Therefore, those whose capacity is in question, can avail of support regarding decisions relating to consent to treatment for their mental illness. If a voluntary inpatient or an outpatient attending a mental health service requires the support of a decision-making assistant, co-decision maker or decision-making representative, then a decision about their treatment must be the same as a decision they would likely have made themselves without these supports at a time when they had capacity. At times when the person lacks capacity, the decision-making supporters must still act in accordance with the person’s “will and preferences”. If the voluntary inpatient or outpatient is taking medication on the basis of consent provided by one of the support arrangements, but decides to stop taking the prescribed medication, then they cannot be forced to take it unless they meet the criteria for an involuntary admission under the Mental Health Act 2001. Provisions for such an involuntary admission would be dealt with separately under the MHA 2001.
As it stands where the definition of voluntary patient does not address capacity there are some scenarios which may cause problems. Technically a voluntary admission to an approved centre could take place on a decision made by a decision-making representative. Would this be acceptable once it is in keeping with the persons known ‘will and preferences’? Yes, this is acceptable once it is in keeping with the ‘will and preference’ of the person and they do not resist. But in this case if a person with reduced capacity was admitted voluntarily to an approved centre on foot of a decision taken by a decision-making representative, it could be regarded as a breach of their liberty under Article 5(1) of the ECHR. The Expert Report of the MHA 2001 recommended that where a person is unable to give informed consent due to their lack of mental capacity to make such a decision “then admission cannot take place on a voluntary basis even if a substitute decision maker (decision-making representative) has been appointed” (Department of Health, 2015, recommendation 26). As we are still in the early period of commencement of the Assisted Decision-Making (Capacity) Act 2015, its’ intersection with the Mental Health Act 2001, in particular while we await the commencement of the Mental Health (Amendment) Act 2018, has potential to raise some issues.

Also, a person who suffers from a mental disorder can make provisions for a time when they might lack capacity. However, there are some limitations for certain involuntary patients with respect to advance healthcare directives to be detailed in the section 1.8.8.

1.8.7. Patients in Approved Centres

The Expert Group on the Review of the MHA recommended the introduction of a new intermediate category of patient, “who will not be detained but will have the review mechanisms and protections of a detained person. Such patients would not have the
capacity to consent to admission and equally do not fulfil the criteria for involuntary detention.” (Department of Health, 2015, Recommendation 26). This new concept has the potential to make things more complex for admissions to approved centres but it has been proposed within the Draft Heads of Bill to Amend the Mental Health Act 2001 as of 13th July 2021. Within this Draft ‘intermediate person’ means a person (other than a child) who lacks capacity (within the meaning of section 3 of the Act of 2015) and does not meet the criteria for involuntary detention in section 8, but requires treatment in an approved inpatient facility” (Draft Heads of Bill to Amend the Mental Health Act 2001, 2021).

In recent years there have been cases before the court of law in respect of capacity to consent to treatment regarding the correct application of deprivation of liberty safeguards to persons who are deemed to lack mental capacity (The Law Society of Ireland, 2022). A notable case was Supreme Court in AM -v- HSE [2019] IESC 3 where the constitutionality of the detention of persons under the Court’s wardship jurisdiction was considered. Deprivation of liberty safeguards for persons who lack capacity but don’t meet the criteria for detention under The Mental Health Act 2001 have been since utilised under this jurisdiction (The Law Society of Ireland, 2022). The case of a compliant patient who lacked capacity was addressed in the decision of the Court of Appeal in PL v. Clinical Director of St. Patrick’s University Hospital & Ors [2018] IECA 29, [2018] 1 ILRM 441. The proposed category of intermediate patient would have applied in such cases.
The Draft Amendment Bill states that “‘involuntary person’ means, in the case of an adult, a person, including both those who do and do not have capacity (within the meaning of section 3 of the Act of 2015), who fulfils the criteria for detention in section 8 and has not provided his or her consent to admission to an approved inpatient facility” (Draft Heads of Bill to Amend the Mental Health Act 2001, 2021).

The Expert Group recommended an expanded role for Authorised Officers in the process of involuntary detention, specifically in making the decision whether or not an application to involuntarily detain a person should be made. Furthermore, the Expert Group recommended that, in cases where a person is taken into Garda custody under section 12 of the Mental Health Act, an initial assessment by an Authorised Officer should take place as soon as possible (Department of Health, 2015). A commitment on increasing the numbers of Authorised Officers is included in the Programme for Government. The Department is considering expanding the role of Authorised Officers to reflect these recommendations.

While the new definition of voluntary patient in the Amendment Act 2018 will be welcome in terms of allowing only those with capacity to be voluntary patients, it could lead to an increase in the amount of involuntary admissions. However, prior to this study there had been a lack of research in Ireland into the number of those who are voluntary but lack capacity in Ireland, something this research set out to explore. If we look at the study by Okai et al., it demonstrated that the number of inpatients in psychiatry units who lack mental capacity was 29% (Okai et al., 2007). In 2022 there were 15,790 admissions to Irish adult psychiatric hospitals and units (Daly and Lynn,
2022). This alongside patients in the community who may require assistance with decisions could lead to large numbers requiring different levels of decision-making assistance for separate decisions. This could potentially place huge demand on resources. However there has been a lot of preparation prior to the commencement of the Assisted Decision-Making (Capacity) Act 2015, with education to stakeholders about the process and procedures and the establishment of the Decision Support Service.

1.8.8. Advance Healthcare Directives and Mental Illness

There is often stigma and negative experiences for those suffering with a mental illness. Advance healthcare directives (AHDs) can help ameliorate that and help in the promotion of patient autonomy (Morrissey, 2010). AHDs have been proven to benefit and empower patients and improve participation of patients and the therapeutic relationship with their medical team (Department of Health, 2015, Section 2.15). Within the Assisted Decision-Making (Capacity) Act 2015, there is now statutory recognition for AHDs as detailed in section 1.6.

The Irish Medical Council guide states that “an advance treatment plan has the same ethical status as a decision by a patient at the actual time of an illness and should be respected” (Irish Medical Council, 2019, Para 16.2). It would seem reasonable that this should apply to the case of treatment for mental illness also, especially where the patient may not have capacity because of their illness. Section 84 of the Assisted Decision-Making (Capacity) Act states that a refusal of treatment as set out in an AHD shall be complied with where the three following conditions are fulfilled:
“(a) at the time in question the directive-maker lacks capacity to give consent to the treatment;

(b) the treatment to be refused is clearly identified in the directive;

(c) the circumstances in which the refusal of treatment is intended to apply are clearly identified in the directive.” (Section 85(2))

For the vast majority of those suffering from a mental disorder, advance healthcare directives will apply in the same manner. For psychiatry outpatients and voluntary inpatients, a refusal of a specified treatment in a valid and applicable advance healthcare directive “shall be complied with” and a request for a specified treatment in a valid and applicable AHD “shall be taken into consideration”.

For involuntary inpatients detained under the Mental Health Act 2001, AHDs pertaining to physical illness apply in the same way as for those not suffering from a mental illness. However, for some involuntary inpatients, advance healthcare directives pertaining to mental illness do not hold the same weight. The most recent amendment to 2015 Act states that an advance healthcare directive shall be complied with unless, at the time when it is proposed to treat the directive-maker that:

“(i) his or her treatment is regulated by Part 4 of the Act of 2001, other than where he or she is detained under that Act on the grounds that he or she is suffering from a mental disorder within the meaning of section 3(1)(b) of that Act, or
(ii) he or she is the subject of a conditional discharge order under section 13A of the Criminal Law (Insanity) Act 2006” (Part 8, section 85(7)).

That is to say, for those detained under section 3(1)(a) of the Mental Health Act 2001 (the ‘risk’ criterion for detention), a refusal of a specified treatment for mental illness or a request for a specified treatment for mental illness in a valid and applicable advance healthcare directive, while not legally binding, should be taken into consideration as an expression of will and preferences. The same applies for patients detained under both section 3(1)(a) and (3)(1)(b).

For patients detained under section 3(1)(b) (the ‘treatment’ criterion), refusal of specified treatment for mental illness in a valid and applicable advance healthcare directive “shall be complied with” and a request for treatment for mental illness in a valid and applicable healthcare directive “shall be taken into consideration”.

Differing standards for some patients who are treated under section 4 of the MHA 2001 is discriminatory to those suffering from a mental illness. The Expert Group Report on the MHA 2001 recommended that AHDs should “apply to mental health on an equal basis with general health”. A mental illness can have varying degrees of impact on a person’s capacity, which can fluctuate. In order to facilitate patient autonomy, AHDs allow patients to maintain some control over their treatment should they lose mental capacity when they become unwell (Department of Health, 2015, Section 2.15). In Ireland, research by O'Donoghue et al. (2010) showed that there was significant interest
in psychiatric AHDs where 84% of service users were found to be interested in having an AHD as part of their mental health treatment care plan.

1.8.9. Conclusion

This chapter has provided a background review of the legislation for decision making in those suffering with a mental disorder. It detailed both the Assisted Decision-Making (Capacity) Act 2015 and the Mental Health Act 2001 and its amendments. It also highlighted some of the short falls within the Irish legislation which could be problematic in the future in terms of resources and potential legal and ethical concerns. As there has been no study to date looking at mental capacity to make treatment decisions in psychiatry inpatients in Ireland, this work set out to explore this area. A systematic was carried out and results of this are included in this thesis. The next chapters will give details of the methods of the study process, results, and a discussion of results alongside recommendations and an up-to-date synopsis of the practical workings of the Assisted Decision-Making (Capacity) Act 2015 since it was commenced just over 6 months ago.
Chapter 2

Methods
The methods of this work have been published in four papers of the author (Curley et al., 2019a, Curley et al., 2019b, Curley et al., 2019c, Curley et al., 2021). Large sections are taken directly from these papers.

2. Methods

2.1. Systematic Review

2.1.1. Methodology

As part of this work, a systematic review was completed. This systematic review aimed to examine the literature to determine the extent of the research and existing data in this field. Before data extraction, the study was registered with PROSPERO (an international prospective register of systematic reviews) on 14th July 2020 (ID CRD42020188284). Therefore, there is a permanent record of the key features of the protocol. The population of interest was psychiatry inpatients, the intervention was capacity assessment, and the outcome was mental capacity for treatment decisions. The search terms were decided and tested amongst the databases, Embase, MEDLINE and PsycINFO. The search was completed in duplicate by two independent reviewers (The author (AC) and CW) at the same time.

2.1.2. Eligibility

Inclusion criteria were quantitative studies published in English, which assessed the decision-making capacity for treatment in those admitted to psychiatric wards aged 18 and over. Studies which measured decision-making capacity for treatment using a judgement standard or dimensional capacity assessment tool were included. Studies which used either real treatment or vignettes were included. Studies that included other
populations for comparison e.g. medical inpatients were included once the results for psychiatry inpatients were assessed separately.

Studies were excluded if they were solely qualitative in nature, included anyone under the age of 18 or only those over 65 years; studies exclusively on those with intellectual disabilities or organic disorders, or if exclusively carried out in over 65’s, or in a forensic population. Studies were excluded if the capacity assessments were in the community or out-patient population or if assessed for medical as opposed to psychiatric treatment.

2.1.3. The Search Strategy

A systematic search of Ovid MEDLINE, PsycINFO, and Embase was performed. Following consideration of all terms to maximise the sensitivity and specificity of the search, agreement was reached on the following search terms: (‘mental capacity’ OR ‘mental incapacity’ OR ‘mental competence’ OR ‘decision-making’ OR ‘informed consent’) AND ( ‘mental illness’ OR ‘mental disorder’ OR ‘mental health’) AND ( ‘inpatient’ OR ‘hospitalisation’ OR ‘hospitalised patients’ OR ‘psychiatric hospital’ OR ‘psychiatric ward’). Where required, these search terms were adapted to fit the MeSH criteria of the databases. Below are the database specific full search using Embase, MEDLINE and PsycINFO.
2.1.3.1. **Embase Search**

1. (patient decision making'/exp OR 'decision making'/exp)

2. ((Patient* OR making OR treatment* OR involuntar* OR voluntar* OR Competenc* OR capacit* OR incapacit*) NEAR/4 (Decide? OR decision? OR decision-making)):ti,ab

3. #1 OR #2

4. (competence'/exp OR 'mental capacity'/exp OR 'patient attitude'/exp)

5. (capacit* OR Competenc* OR ability OR inability ):ti,ab

6. #4 OR #5

7. 'mental patient'/exp OR 'mental disease'/exp OR 'mental deficiency'/exp OR 'mental health care'/exp OR 'psychiatric treatment'/exp OR 'psychiatry'/exp OR 'psychiatric department'/exp OR 'mental hospital'/exp

8. ((Psychiatric OR psychiatry OR mental) NEAR/3 (patient* OR in-patient* OR inpatient*)):ti,ab

9. #7 OR #8

10. 'informed consent'/exp OR 'treatment refusal'/exp

11. ((Informed OR patient* OR capacity OR Competenc*) NEAR/3 consent*):ti,ab

12. (Consent NEAR/3 treatment*):ti,ab

13. (Refus* NEAR/3 (treatment* OR medication* OR Competenc*)):ti,ab

14. #10 OR #11 OR #12 OR #13

15. #3 AND #6 AND #9 AND #14
2.1.3.2. MEDLINE Search

1. Mental Competency/ AND (exp Decision Making/ OR Intellectual Disability/ OR exp Attitude to Health/ OR Mentally Ill Persons/ OR exp Mental Disorders/)

2. ((Patient* OR making OR treatment* OR involuntar* OR voluntar* OR Competenc* OR capacit* OR incapacit*) adj3 (Decide? OR decision?)).ti,ab.

3. (Mental capacit* OR Mental Competenc* OR patient competenc* OR decision-making OR treatment decision* OR mental deficiency OR psychiatric treatment*).ti,ab.

4. or/1-3

5. exp Informed Consent/ OR exp Treatment Refusal/

6. ((Informed OR patient* OR capacity OR Competenc*) adj3 consent*).ti,ab.

7. (Consent adj3 treatment*).ti,ab.

8. (Refus* adj3 (treatment* OR medication* OR Competenc*)).ti,ab.

9. or/5-8

10. Mentally Ill Persons/ OR exp Mental Disorders/ OR exp Mental Health Services/ OR exp 11.Psychotherapy/ OR exp Psychiatry/ OR Psychiatric Department, Hospital/ OR Hospitals, Psychiatric/((Psychiatric OR psychiatry OR mental) adj3 (patient* OR in-patient* OR inpatient*)).ti,ab.

12. or/10-11

13. 4 AND 9 AND 12
2.1.3.3. PsycINFO Search

1. DE "Decision Making"

2. TI ((Patient* OR making OR treatment* OR involuntar* OR voluntar* OR Competenc* OR capacit* OR incapacit*) N4 (Decide* OR decision* OR decision-making)) OR AB ((Patient* OR making OR treatment* OR involuntar* OR voluntar* OR Competenc* OR capacit* OR incapacit*) N4 (Decide* OR decision* OR decision-making))

3. S1 OR S2

4. (DE "Competence") OR (DE "Client Attitudes")

5. TI (capacit* OR Competenc* OR ability OR inability ) OR AB (capacit* OR Competenc* OR ability OR inability )

6. S4 OR S5

7. (DE "Patients" OR DE "Psychiatric Patients") AND (DE "Mental Disorders" OR (DE "Intellectual Development Disorder" OR DE "Psychiatric Units" OR DE "Psychiatric Clinics" OR DE "Psychiatric Hospitals" OR DE "Psychiatric Hospitalization" OR DE "Psychiatry")

8. TI ((Psychiatric OR psychiatry OR mental) N3 (patient* OR in-patient* OR inpatient*)) OR AB ((Psychiatric OR psychiatry OR mental) N3 (patient* OR in-patient* OR inpatient*))

9. S7 OR S8

10. S3 AND S6 AND S9
2.1.4. The Search

The search was completed on 8th November 2020, with results exported to Endnote X9 and then to Covidence. Covidence (https://www.covidence.org/home), is a tool used for screening and data extraction in systematic reviews. This was used by two independent reviewers, AC and CW, to select the studies that met the inclusion criteria. The reviewers applied a double screening on titles and abstracts. If a reviewer was unsure as to whether an article fulfilled inclusion criteria based on abstract review only, the full paper was reviewed. After screening, papers were read in full and excluded if they did not meet criteria. Discrepancies with the authors were resolved by a third reviewer, BK. The bibliographies of all studies that met the criteria for inclusion in our systematic review were hand searched to identify any further articles.

2.1.5. The Search Analysis:

Articles that met the criteria were categorised based on their fulfilment of a relevant research question listed above. Data was extracted by AC using a Covidence form which specified the format of assessment, the tool used to assess mental capacity and, where data was available, the prevalence of mental capacity including separate prevalence of capacity in voluntary and involuntary patients. Any association between decision-making capacity and demographics or clinical variables was also noted.

2.1.6. Quality analysis

Quality or risk of bias assessment was not performed on some previous systematic reviews due to the difficulty posed by the heterogeneity of the studies included (Okai et al., 2007, Spencer et al., 2017). While there were limitations due to this reason, quality assessment was performed on the papers using the relevant checklist from the Critical
We used the diagnostic study checklist as the best fit with the studies included in our review, using various tests of capacity to diagnose mental incapacity (see appendix 10). We chose the MacCAT-T as the reference standard. This checklist has 12 questions which cover three broad areas surrounding the validity of the results, the content of the results and assessing local benefit (CASP, 2019). As the checklists were designed for educational purposes, no scoring system is suggested. We rated the studies as high, medium, or low quality. High compliance with the checklist indicated lower risk of bias and higher validity (Plunkett and Kelly, 2021). While the other items within this tool were factored into the quality analysis for example “was there a clear question for the study to address” “is the disease status of the population clearly defined” and “were the methods for performing the test described in sufficient detail?”, we were looking for mental capacity to be assessed using a validated tool, ideally the MacCAT-T and for a clinical or legal binary judgement to be compared to this validated tool. However only a few studies used 2 assessment means. Legal criteria alone are not validated tools and so studies using these criteria alone were placed in the low-quality category.
2.2. Setting

This cross-sectional, observational study was based in four psychiatry inpatient units in the eastern part of Ireland: the Acute Psychiatry Unit in Tallaght University Hospital, Dublin; the Drogheda Department of Psychiatry, Crosslanes, Drogheda, County Louth; St Brigid’s Hospital, Ardee, County Louth; and the Department of Psychiatry, Connolly Hospital, Blanchardstown, Dublin. All of these units provide inpatient mental health care for public (i.e. non-fee-paying) adult patients and are operated by the Health Service Executive (HSE), Ireland’s governmental provider of public mental health care (i.e. free at point-of-use).

Tallaght University Hospital is one of Ireland’s largest acute teaching hospitals, located in suburban Dublin, and is one of the two main teaching hospitals of Trinity College Dublin. The Acute Psychiatry Unit comprises 52 beds and associated facilities and provides inpatient mental health care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection by the Inspector of Mental Health Services in 2017, this unit had 51 inpatients of whom 9 were involuntary (Inspector of Mental Health Services, 2017a).

The Drogheda Department of Psychiatry serves the more rural catchment area of counties Louth and Meath. It comprises 46 beds and associated facilities and provides inpatient mental health care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection in 2017, this unit had 44 inpatients of whom 10 were involuntary (Inspector of Mental Health Services, 2017c).
St Brigid’s Hospital in Ardee, County Louth is a dedicated, standalone psychiatry hospital currently comprising 20 beds and associated facilities. It provides medium- to long-term care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection in 2017, this unit had 16 inpatients, all of whom were over six months in the hospital and all but one of whom were aged over 65 years (Inspector of Mental Health Services, 2017d). All were voluntary.

Connolly Hospital Blanchardstown is a university teaching hospital for the Royal College of Surgeons in Ireland (RCSI) which provides acute medical and surgical services to north-west Dublin and surrounding areas of north Kildare and south county Meath. The Department of Psychiatry, Connolly Hospital comprises 47 beds and associated facilities. It provides inpatient mental health care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection in 2017, this unit had 38 inpatients of whom 6 were involuntary (Inspector of Mental Health Services, 2017b).

2.3. **Participants, Recruitment and Psychiatry Admission Status**

Inpatients in the four participating psychiatry units were recruited from 31 July 2017 to 5 October 2018 inclusive. For consideration for inclusion, a patient had to be an inpatient in one of the four inpatient psychiatry units during the study period; aged 18 years or over; and proficient in the English language. We identified patients from inpatient census lists and recruited patients based on availability and eligibility from each of the four units over the study period. On the day of assessment, all those eligible
for assessment were approached for consent to participate. We included both voluntary and involuntary patients under Ireland’s Mental Health Act 2001.

In Ireland, as in many other jurisdictions (e.g. England and Wales), lack of mental capacity is not an explicit part of the legal criteria for involuntary psychiatric admission (Kelly, 2016b). Ireland’s Mental Health Act 2001 permits involuntary admission when a person has a “mental disorder”, which is defined as “mental illness, severe dementia or significant intellectual disability where (a) because of the illness, disability or dementia, there is a serious likelihood of the person concerned causing immediate and serious harm to himself or herself or to other persons, or (b) (i) because of the severity of the illness, disability or dementia, the judgment of the person concerned is so impaired that failure to admit the person to an approved centre [i.e. inpatient psychiatry unit] would be likely to lead to a serious deterioration in his or her condition or would prevent the administration of appropriate treatment that could be given only by such admission, and (ii) the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent” (Section 3(1)).

In 2018 when this study was performed, there were 17,000 admissions to Irish psychiatry inpatient units and hospitals (yielding a rate of 357.0 per 100,000 population), of which 13% were involuntary admissions under the Mental Health Act 2001 (Daly and Craig, 2019). This yields a rate of 46.7 involuntary admissions per 100,000 population per year, which is less than half the rate in England (Gilhooley and Kelly, 2018).
The study did not compare outcomes across groups therefore, in place of a statistical power calculation, we selected a sample size of approximately 200 participants so that our study would be comparable with, or larger than, other key studies in the field (Cairns et al., 2005a, Mandarelli et al., 2014, Mandarelli et al., 2018). In addition, approximately 200 participants was a pragmatically achievable sample size in the study setting, pragmatically and proportionately divided between the four participating psychiatry units.

2.4. **Data Collection and Materials**

2.4.1. **Clinical and demographic variable data collection**

All assessments were carried out based on the patient’s own diagnosis and the treatment they were receiving according to the records documented by their treating team. Once a patient consented to participate in the study, the researcher gathered the required information from their clinical file and identified the key treatment decision that the patient faced at that time. This included decisions regarding medication, admission to hospital, or whether or not to receive electroconvulsive therapy (ECT). The researcher did not give any new information to the patient and did not repeat the information documented in the chart to the patient. This was to ensure that the researcher did not cause any unnecessary distress to the patient during this assessment and to keep within the guidelines of our ethical approval. For each participant in the study, we recorded gender (male or female), age, marital status (never married, married, separated or divorced, or widowed), employment status (employed or unemployed), ethnicity (Irish or non-Irish), admission status at time of assessment (voluntary or involuntary) and clinical diagnosis (schizophrenia and related disorders, affective disorders, psychoactive substance misuse disorders (including alcohol), neurotic disorders,
personality disorders and others) derived from each participant’s case-file, coded using the World Health Organisation’s (WHO) International Classification of Mental and Behavioural Disorders (ICD-10) (World Health Organization, 1992). These socio-demographic factors were decided prior to the commencement of the study and based on information from a literature review. Section 3.2.5 of the systematic review “Demographic factors and mental capacity” details how some studies reported mixed or no association with mental capacity and sociodemographic factors including mixed findings on age and employment status. There were no significant findings of association with gender, however gender has been associated with involuntary admission status (Curley et al., 2016). Given the mixed findings of these various sociodemographic factors and association with mental capacity, it will add to the evidence to strive to clarify this. The factors chosen were also in keeping with those assessed in a recent systematic review by Spencer and colleagues (2017) which found a lack of association with most sociodemographic variables (gender, race, age). This study found with the exception of socio-economic status, insight and neurocognition there was no association between decision-making capacity to make treatment decisions measured using either dimensional scales or a judgement standard (Spencer et al. 2017). However, that review and some other papers did include more factors in their studies such as level of psychotic symptoms as assessed by the BPRS (Di & Chen, 2013, Owen et al., 2008) or PANSS (Howe et al, 2005, Raffard et al., 2013); insight as assessed by tools such as the Beck Cognitive Insight Scale (Raffard et al., 2013), Expanded Schedule for the Assessment of Insight (SAI-E) (Cairns et al., 2005, Owen et al., 2008) and screening for cognition using MMSE (Cairns et al., 2005, Mandarelli et al., 2012) and further neurocognitive functions such as executive function as assessed by the WAIS-R (Owen et al., 2008, Wong et al., 2005) and the Wisconsin Card Sorting Test.
(Mandarelli et al., 2012, Wong et al., 2005). Unfortunately, these measures were beyond the ethics approval and omitted to reduce research burden on this population which likely has a proportion of people who lack mental capacity.

The author acknowledges that adding further exploration of these factors would add to this work. To limit the research burden the Health Research Regulations 2018 (Data Protection Act 2018 (Section 36(2)), provide that only data which is necessary and doesn’t cause damage or distress may be collected. Given that this is a vulnerable population and that the author expected a cohort of the study population to lack decision-making capacity, it was deemed necessary to reduce the research burden on the participants and followed the data minimisation principal such that the least amount of possible data was collected.

Also, to reduce any potential risks, there were no patient identifiers gathered and all data was irrevocably anonymised at point of collection.

No information was gathered on non-participants. Only those who consented to have their data collected were included. I did not have ethical approval to gather data on non-participants. However, I would estimate that those who did not participate may have had a higher degree of illness burden or cognitive impairment and if anything, this could lead to an underestimate of mental incapacity due to this selection bias. Looking at the national figures for 2018 of the psychiatric inpatient population, the time when the majority of the capacity assessments were carried out, the sociodemographic profile of our study population was not dissimilar. From the Health Research Board report in
2018, 54% of total involuntary admissions were male. Our study population found 59% of involuntary admissions were male. The mean age at admission was 45 years, with a median age of 43 years (Daly and Craig, 2019). The mean age in this work was 46.2 years.

According to the National Inpatient Census 2018 (Mental Health Commission, 2020), 52% of patients were male (compared to 58.1% in this work) and 13% of admissions were involuntary (figures in this work found that 18.1% were involuntary). In the census the most common diagnosis at 39% was a diagnosis of schizophrenia disorders (Mental Health Commission, 2020). The figure is this work for schizophrenia and related disorders was 42.8%. These results reflect similarity to our study population despite the lack of participation of some patients.

With respect to the non-participants, those in seclusion or too agitated did not participate at that time but when seclusion ended, and patients were more settled many had the opportunity to engage in assessment. Similarly, those limited by the severity of their illness such as some patients undergoing ECT as treatment or cognitively impaired may have been unable to complete the assessment. The exclusion of these patients from participation could lead to selection bias and underestimate of mental incapacity. Unfortunately, the researcher was unable to collect demographic or clinical information on those who did not participate in the study, as the ethical approval did not allow for this data on non-participants to be obtained.
A similar bias could have existed with respect to those undergoing ECT where many of the patients would not be able to complete a research assessment. This has potential limitations to the generalisability of the study findings.

Single rater

The author was a single rater of these assessments, but to ensure validity there were regular checks and training with the research supervisor, in particular if there had been any breaks between recruitment locations. Some assessments were also completed in conjunction with another experienced colleague trained in the use of the MacCAT-T and experience in assessments using the criteria of the Assisted Decision-Making Capacity Act 2015. To provide a consistent approach to both the MacCAT-T and legal assessment only one rater completed these assessments. However, a limited number of assessments were carried out jointly to ensure consistency. The strengths and limitations of the choice of a single rater will be discussed further in Section 5.7.

2.4.2. Assisted Decision-Making (Capacity) Act 2015 Assessments

Our primary assessment of mental capacity was based on the Assisted Decision-Making (Capacity) Act 2015 which states that ‘a person lacks the capacity to make a decision if he or she is unable (a) to understand the information relevant to the decision; (b) to retain that information long enough to make a voluntary choice; (c) to use or weigh that information as part of the process of making the decision; or (d) to communicate his or her decision (whether by talking, writing, using sign language, assistive technology, or any other means) or, if the implementation of the decision requires the act of a third party, to communicate by any means with that third party’ (Section 3(2)). Each of these
four items was rated in a binary fashion (yes/no). In accordance with the 2015 Act, if the patient received a ‘no’ on one or more of these four items, the patient lacked mental capacity for treatment decisions.

2.4.3. MacCAT-T Assessments

The key outcome variable of mental capacity for treatment decisions was also assessed using the MacCAT-T, a semi-structured interview that yields scores on four separate scales (with higher scores indicating greater mental capacity): (1) understanding of the disorder and its treatment, including associated benefits and risks (rated from 0 to 6, made up of three sub-scales, each rated from 0 to 2: understanding of the disorder, treatment and benefits/risks); (2) appreciation of the disorder and its treatment; i.e. how the patient understands how they specifically could be affected, which usually entails some degree of insight (rated from 0 to 4, made up of two sub-scales, each rated from 0 to 2: appreciation of the disorder and appreciation of treatment); (3) reasoning, which assesses the processes behind the decision and ability to compare alternatives in view of the consequences (rated from 0 to 8, made up of four sub-scales, each rated from 0 to 2: consequential reasoning, comparative reasoning, generating consequences and logical consistency); and (4) the ability to express a choice (which is rated from 0 to 2) (Grisso et al., 1997b, Grisso and Applebaum, 1998, Murphy et al., 2018).

The MacCAT-T measures these four elements of mental capacity on continuous scales with a high degree of inter-rater reliability (ranging between 0.99 for “understanding” and 0.87 for “appreciation”) (Grisso et al., 1997b, Sturman, 2005a). When added together, these scores yield an overall MacCAT-T score ranging from 0 to 20, with a
higher score indicating greater mental capacity for treatment decisions. But even if a participant had a high overall MacCAT-T score they may still lack mental capacity if they perform poorly on a single subscale.

For assessment of capacity using the MacCAT-T, treatments were dependant on the individual patient cases and consisted of medication, ECT (in the Tallaght cohort) or admission to an acute psychiatric unit. No alternative treatment option was provided by the researcher. If the treating team had provided information on an alternate which the patient was aware of, this was used but in most cases the choice of alternative treatment was no treatment. This was to ensure ethically and clinically responsible choices during the research work. Suggesting alternatives not knowing the full clinical and medical background had the potential to cause distress or difficulty for the patient or treating team. While this may have been low risk, the researcher felt it was imperative to limit any such possibilities.

As there was only one researcher assessing mental capacity, a proforma outside the guidelines of the MacCAT-T was not used. However, in cases where there are more assessors it might be beneficial to consider the use of a proforma to help standardise and guide the assessment further especially with respect to assessing appreciation, reasoning and alternative treatment options. But as already stated there is a high-degree of inter-rater reliability in using the MacCAT-T (Grisso et al., 1997b, Sturman, 2005a).
2.4.4. **MacCAT-T with cut-off scores (categorical assessments)**

The initial use of the MacCAT-T did not involve establishing cut-off scores to generate categorical assessments of mental capacity; instead, it was encouraged to couple the MacCAT-T with other tools or clinical evaluations to inform mental capacity assessments. However, cut-off scores have been used in various research studies and have clinical utility, so, as part of the present analysis, we followed the method outlined by Kolva et al. (2014) who noted that previous studies of the MacCAT-T had used cut-off scores to classify levels of decisional impairment. Building on this work, they generated scores classifying participants as “impaired”, “borderline” or “unimpaired” on each of four subscales (understanding, appreciation, reasoning and expressing a choice) based closely on the MacCAT-T instrument.

For the understanding subscale, scores in the 0 to 2 range were classified as “impaired”; scores of 5 or greater were “unimpaired”; and scores in between these extremes were “borderline”. On the appreciation subscale, scores below 2 were classified as “impaired”; scores of 3 or greater were “unimpaired”; and scores in between were “borderline”. On the reasoning subscale, scores below 4 were classified as “impaired”; scores of 7 or greater were “unimpaired”; and scores in between were “borderline”. On the expressing a choice subscale, scores below 1 were classified as “impaired”; scores of 2 or greater were “unimpaired”; and scores in between were “borderline”.

As a result, following this re-coding, each subscale score ranged from 0 to 2 where 0 indicated that the participant lacked the ability to perform the task; 1 indicated partial ability; and 2 indicated adequate ability (Kolva et al., 2014). Taken together, these four
subscales yielded a second overall mental capacity score ranging from 0 to 8, with a score of 0 indicating lack of mental capacity, 8 indicating full mental capacity, and scores in between indicating partial mental capacity.

2.4.5. Assessors

As a clinician with more than five years training in psychiatry and membership of the Royal College of Psychiatrists, I performed all the ratings myself (215 patients) consistent with established methodology (Owen et al., 2013, Murphy et al., 2018) and with ongoing supervision by another trained assessor (BDK). For additional quality control, there were joint assessments of certain patients with another trained clinician, also with more than five years training in psychiatry and membership of the Royal College of Psychiatrists (RM), and also under supervision (BDK).

2.5. Consent Procedure

It is important that the diversity of the population is reflected in research samples including those who lack mental capacity (Horner-Johnson and Bailey, 2013). Irish legislation does not provide a framework for the governance of people who lack mental capacity to consent to participate in research. As new capacity legislation was being developed, the government was advised but failed to address this issue in the Assisted Decision-Making (Capacity) Act 2015 (Kelly, 2014b). However, such research is essential. It is imperative that patients who lack capacity are involved in research in order to establish an evidence-based approach to their treatment.
As detailed in chapter 1, doctors are required both legally and ethically to obtain informed consent before treating patients. According to the Irish Medical Council’s ethical guidelines as a doctor “you must make sure that patients have given their consent before you provide any medical investigation, examination or treatment” (Irish Medical Council, 2019, para. 9.2). According to these guidelines, consent is also “required by law and is an essential part of respect for patients’ autonomy. Patients have the right to decide what happens to their own body. They also have a right to refuse medical treatment or withdraw consent” (Irish Medical Council, 2019, para. 9.2).

Notwithstanding this, consent is not always sufficient or necessary in certain cases, for example in public health interventions (Beauchamp and Childress, 2013, p. 110). Extending this to cases where consent from an individual with a disability is not possible, the National Disability Authority’s Ethical Guidance for Research with People with Disabilities (National Disability Authority, 2009) emphasises the importance of the ‘assent’ of persons with impaired mental capacity who are involved in research. This approach was used to guide this study, and adopted such that any patient, with or without mental capacity, who indicated any desire to not participate, did not participate.

Section 31 of England’s Mental Capacity Act 2005 addresses this issue clearly and is consistent with international guidance on this subject. England’s 2005 Act outlines the following guidance and ‘requirements for approval’ for research ethics committees of research projects involving participants who lack mental capacity to consent:

- The appropriate body [e.g. research ethics committee] may not approve a research project for the purposes of this Act unless satisfied that the following requirements
will be met in relation to research carried out as part of the project on, or in relation to, a person who lacks capacity to consent to taking part in the project (‘P’).

- The research must be connected with (a) an impairing condition affecting P, or (b) its treatment.
- ‘Impairing condition’ means a condition which is (or may be) attributable to, or which causes or contributes to (or may cause or contribute to), the impairment of, or disturbance in the functioning of, the mind or brain.
- There must be reasonable grounds for believing that research of comparable effectiveness cannot be carried out if the project has to be confined to, or relate only to, persons who have capacity to consent to taking part in it.
- The research must (a) have the potential to benefit P without imposing on P a burden that is disproportionate to the potential benefit to P, or (b) be intended to provide knowledge of the causes or treatment of, or of the care of persons affected by, the same or a similar condition.
- If the research falls within paragraph (b) of subsection (5) but not within paragraph (a), there must be reasonable grounds for believing (a) that the risk to P from taking part in the project is likely to be negligible, and (b) that anything done to, or in relation to, P will not (i) interfere with P's freedom of action or privacy in a significant way, or (ii) be unduly invasive or restrictive.

This study fulfilled all criteria under these regulations as follows:

- As mental capacity affects ‘treatment’ decisions it is ‘connected with (a) an impairing condition affecting P, or (b) its treatment’ (section 31(2));
• The participants lacking mental capacity will have an ‘impairment of, or disturbance in the functioning of, the mind or brain’ (section 31(3)), leading to mental incapacity;
• ‘Research of comparable effectiveness cannot be carried out if the project has to be confined to, or relate only to, persons who have capacity to consent to taking part in it’ (section 31(4)). On the basis that this research is about mental capacity, it is important to include patients with varying levels of mental capacity;
• The research has ‘the potential to benefit P without imposing on P a burden that is disproportionate to the potential benefit to P’ or is ‘intended to provide knowledge of the causes or treatment of, or of the care of persons affected by, the same or a similar condition’ (Section 31(5)) (again, by clarifying issues relating to mental capacity in relation to ‘treatment’);
• There are ‘reasonable grounds for believing (a) that the risk to P from taking part in the project is likely to be negligible, and (b) that anything done to, or in relation to, P will not (i) interfere with P's freedom of action or privacy in a significant way, or (ii) be unduly invasive or restrictive’ (Section 31(6)) (there is no invasive procedure involved in the study assessment and involves an interview only).

The Mental Capacity Act 2005 is the most detailed legislative guidance available but does not apply in Ireland. However, given that it is consistent with international standards and in the absence of Irish legislation our study consent and assent criteria and forms were drawn up to accord fully with it. Each participant was also made aware that he or she could withdraw consent at any time without affecting clinical care or any other matter in any way. If any patient appeared distressed during the course of the
study, participation would cease; his or her clinical team were to be informed immediately; and appropriate care provided.

For this study, it was imperative that all patients who were eligible to participate were approached and invited to participate regardless of level of mental capacity, in order to gain a complete picture of the prevalence of mental incapacity and avoid selection bias. To achieve this, we developed a detailed, multi-step consent procedure as follows.

First, any patient (with or without mental capacity) who indicated in any way that they did not wish to participate was excluded from the study immediately.

Second, we obtained written informed consent from patients with mental capacity to provide this consent. There is a legal presumption of mental capacity in Ireland so it was only in cases where there was a prima facie reason to believe that the patient lacked mental capacity to consent to the study that we could question the presumption of mental capacity to participate in the study.

Third, for patients who lacked mental capacity to consent to the study, we developed a next-of-kin/relative information leaflet and assent form, and we obtained assent in this fashion from their next-of-kin or relative where feasible; i.e. when a next-of-kin or relative was named and available. On receiving such assent, we proceeded with our assessments provided the patient assented and did not object to participation at any point. In these cases, we later sought “deferred consent” if the patient regained mental capacity during the study period. If, on regaining mental capacity, any patient had
declined to provide such “deferred consent”, we would have destroyed that patient’s data, but this situation did not arise in the study.

Fourth, for patients who lacked mental capacity to consent to the study and there was no next-of-kin or relative named or available to provide assent, we were to proceed with our assessments provided the patient assented and did not object at any point. In these cases, we were to seek “deferred consent” if the patient regained mental capacity later in the study period. If, on regaining mental capacity, any patient had declined to provide such “deferred consent”, we would have destroyed that patient’s data, but this situation did not arise in the study.

Further, as already noted above, mental capacity was to be assessed in two ways, the first using a semi-structured tool providing a continuous assessment of constituent elements of mental capacity, and the second providing a binary assessment of mental capacity using the criteria in the Assisted Decision-Making (Capacity) Act 2015. As a result, this study did not lead to the conclusion that any patient lacked mental capacity for the purpose of clinical care at the time of the study; that remained entirely a decision for the treating team. This study will, however, provide information about the correlation between the semi-structured capacity interview on the one hand and the criteria for capacity in the 2015 Act.

2.6. Ethical approval

This study received ethical approval from the Tallaght University Hospital/St James’s Hospital Joint Research Ethics Committee, Dublin, Ireland, the HSE North East Area
Research Ethics Committee, Bective Street, Kells, County Meath, and the RCSI Research Ethics Committee, 121 St Stephen’s Green, Dublin 2. This study was performed in accordance with Ireland’s Data Protection Guidelines on Research in the Health Sector (Data Protection Commissioner, 2007) and the Declaration of Helsinki (World Medical Association, 2008). Data were anonymized, encrypted and stored on a password-protected research computer in a locked research office. Patient confidentiality was protected, and data protection legislation adhered to at all times.

2.7. Statistical analysis

Data were analysed using IBM SPSS Statistics 23. For bi-variable analysis, we used the Student t and Chi Square tests, as appropriate. Student t-test was used to compare scores on subscales of the MacCAT-T between patients who had mental capacity for treatment decisions according to the Assisted Decision-Making (Capacity) Act 2015 and those who did not. We generated a multi-variable binary logistic regression model with mental capacity for treatment decisions as per the 2015 Act as the dependent variable and gender, age, marital status, employment status, ethnicity, admission status, primary diagnosis and psychiatry unit of admission (Tallaght Acute Psychiatry Unit, Drogheda Department of Psychiatry, St Brigid’s Hospital (Ardee) or Blanchardstown Department of Psychiatry) as the independent variables. We generated a multi-variable regression model with mental capacity (lack of/partial/full mental capacity) as the dependent variable for this analysis. Independent variables were again gender, age, marital status, employment status, ethnicity, admission status at time of assessment, clinical diagnosis and psychiatry unit in which the person was admitted. It is important to note that all dependent variables had been decided a priori based on a literature review of socio-demographic factors as discussed in section 2.4.1 and section 3.2.5.
We tested the model for multicollinearity, which is when two or more variables are so closely related to each other that the model cannot reliably distinguish the independent effects of each. To achieve this, we calculated a “tolerance value” for each independent variable; tolerance values below 0.25 indicate possible multicollinearity, and tolerance values below 0.10 indicate significant problems with multicollinearity (Katz, 1999).

There were no missing data.

2.8. Candidate’s Role in the study

My role in the study included application for ethical approval, data collection and assessment of mental capacity of all patients in Tallaght University Hospital, Connolly Hospital Blanchardstown, Drogheda Department of Psychiatry and St. Brigid’s Hospital Ardee. I collated and managed the data, along with working on the analysis, interpretation, and writing up of results and papers. All of this was supervised by my research supervisor.
Chapter 3

Results: Systematic Review of Studies of Decision-Making Capacity to Consent to Treatment in Psychiatry Inpatients
3. Results: Systematic Review of Studies of Decision-Making Capacity to Consent to Treatment in Psychiatry Inpatients

This systematic review was published in 2021 (Curley et al., 2021). Large sections of this chapter are taken directly from this paper.

3.1. Introduction

Mental capacity for treatment decisions in psychiatry inpatients is an important ethical and legal issue especially considering recent changes to legislation in Ireland within the Assisted Decision-Making (Capacity) Act 2015. It is only in recent years that respect for patient autonomy rather than a wholly paternalistic approach has been adopted in healthcare decision-making (Donnelly, 2010). This coincides with the concept of decision-making capacity, which is central to modern medicine and law (Owen et al., 2008).

In Ireland, The Mental Health Act (MHA) 2001 primarily looks at the involuntary detention of patients. Admission to approved mental health centres is on a status basis, either voluntarily or involuntarily, without consideration of the person’s mental capacity. With this status approach, it is likely that many voluntary psychiatric inpatients lack the mental capacity, and some involuntary psychiatric inpatients may possess mental capacity to make treatment decisions. This is a paradoxical and concerning situation.

As previously detailed in chapter 1, the outdated capacity or ward of court system currently used in Ireland and legislated under The Lunacy Regulation (Ireland) Act
1871 has now been replaced by the Assisted Decision-Making (Capacity) Act 2015. The aim of this legislation is to assist persons in exercising their decision-making capacity (Kelly, 2017). This Act was passed in December 2015 and was commencement in April 2023. The aim of the Act is to reform the law for people whose capacity is in question and who need help making decisions.

To recap on the criteria, the Assisted Decision-Making (Capacity) Act 2015, Section 3(2) states:

“A person lacks the capacity to make a decision if he or she is unable -

(a) To understand the information relevant to the decision,

(b) To retain that information long enough to make a voluntary choice,

(c) To use or weigh that information as part of the process of making the decision, or

(d) To communicate his or her decision (whether by talking, writing, using sign language, assistive technology, or any other means) or, if the implementation of the decision requires the act of a third party, to communicate by any means with that third party.”

Standards for capacity to consent differ between jurisdictions (Murphy et al., 2019), however the principles are generally similar to the functional approach adopted within the Assisted Decision-Making (Capacity) Act 2015. The Act has followed the approach used in the Mental Capacity Act (MCA) 2005 in England and Wales which also tests a person’s ability to understand, retain, use or weigh up information and communicate a
decision. Using this functional approach, a clinician comes to a binary decision regarding a person’s decision-making capacity.

In the US, the MacArthur Treatment Competence Study developed a tool for assessing decision making capacity for Treatment, the MacCAT-T (Grisso and Applebaum, 1998). This semi-structured interview measures understanding, appreciation, reasoning, and the ability to express a choice (Grisso and Applebaum, 1998) which has also been described in detail in chapter 1 and remains the most validated tool in the field of mental capacity assessments (Murphy et al., 2018). The MacCAT-T measures these elements on dimensional scales which have a high degree of inter-rater reliability (Grisso et al., 1997b, Sturman, 2005a).

There have been numerous reviews looking at various aspects of decision-making capacity in different psychiatric populations. For example, Larkin and Hutton (2017) look at the factors that affect treatment decision-making capacity in psychosis; Spencer et al. (2017) review decision making capacity for treatment and research in patients with schizophrenia and non-affective psychosis; Lepping et al. (2015) reviewed the prevalence of lack of mental capacity in patients in both psychiatric and medical settings and Okai et al. (2007) provided a more general review of the clinical and epidemiological factors in the psychiatric population that impact on their mental capacity. More recently Calcedo-Barba et al. (2020) published “A meta-review of literature reviews assessing the capacity of patients with severe mental disorders to make decisions about their health care, which reviewed 11 publications in the area. However, to our knowledge to date there have been no reviews looking specifically at
decision making capacity for treatment decisions in acute psychiatry inpatients alone. Subsequently, a review of studies reporting on decision-making capacity was carried out to answer the following research questions:

1. What is the prevalence of mental capacity to make treatment decisions in those admitted to a psychiatric unit?

2. What is the prevalence of voluntary patients who lack decision-making capacity and what is the prevalence of involuntary patients who have mental capacity to make treatment decisions?

3. Are there studies comparing dimensional decision-making capacity scores (measured using tools such as the MacCAT-T) and a binary clinical judgement? If so, is there a correlation between dimensional decision-making capacity scores and the binary clinical judgement standard measured using legal criteria similar to those in the Assisted Decision-Making (Capacity) Act 2015, Section 3(2) in psychiatry inpatients.

4. What demographic factors are associated with having mental capacity to make treatment decisions in those admitted to a psychiatric hospital?

On a background of the authors original research in mental capacity for treatment decisions in psychiatry inpatients and using these research questions, this systematic review aimed to examine the literature to determine the extent of the research and existing data in this field. The methodology for this was discussed in chapter 2. In summary the population of interest was psychiatry inpatients, the intervention was capacity assessment, and the outcome was mental incapacity for treatment decisions. The search terms were agreed and searches of the databases, Embase, MEDLINE and PsycINFO were carried out. The search was completed in duplicate by two independent
reviewers (The author (AC) and CW) at the same time. Before data extraction, the study
was registered with PROSPERO (an international prospective register of systematic
reviews) on 14th July 2020 (ID CRD42020188284). Therefore, there is a permanent
record of the key features of the protocol. The search was completed on 8th November
2020, with results exported to Endnote X9 and then to Covidence. Covidence
(https://www.covidence.org/home), is a tool used for screening and data extraction in
systematic reviews. A quality analysis out of the papers to be included in the review
was also carried. While there were limitations due to the heterogeneity of the studies
included, quality assessment was performed on the papers using the relevant checklist
from the Critical Appraisal Skills Program (CASP) lists. The diagnostic study checklist
was used as the best fit with the studies included in our review using various tests of
capacity to diagnose mental incapacity.

3.2. Results

3.2.1. Study selection

Figure 3.1 shows the results of the search. 5552 references were imported from the three
databases for screening. 911 duplicates were removed, and 4639 studies were screened
against title and abstract. Of these, 4569 studies were excluded, and 66 studies were
assessed for full-text eligibility. A further 30 of these studies were excluded due to
wrong patient population. Two studies included people under the age of 18, 2 studies
were in those over the age of 65 only, 4 were in the forensic population, 5 were
outpatient based and 3 studies were set in mixed settings. Six papers included medical
or organic illnesses including dementia and ID and 4 papers were the wrong study
design or wrong outcomes. Four were in the wrong language despite an English
abstract. This left 36 papers to be included. The reviewers hand searched bibliographies
which sourced an additional 42 papers of which 9 were included in the final study. This gave a total of 45 papers for inclusion. Some of the studies had published more than one paper on the same population, for example Curley et al. (Curley et al., 2019a, Curley et al., 2019b, Curley et al., 2019c); and Cairns et. al. (Cairns et al., 2005a, Cairns et al., 2005b) These papers were grouped together for results.
3.2.2. Study characteristics

We identified 36 studies across 48 papers. Table 3.3 summarises the methods of assessing mental capacity with some studies using more than one method to assess mental capacity. Eleven studies used the MacCAT-T in its original context to give dimensional scores only (Bilanakis et al., 2013, Bilanakis et al., 2017, Curley et al., 2019a, Grisso et al., 1997b, Howe et al., 2005, Koren et al., 2005, Lapid et al., 2003, Lapid et al., 2004, Mandarelli et al., 2012, Raffard et al., 2020, Wong et al., 2005);
papers used cut-off scores on the MacCAT-T or another assessment tool such as the competency questionnaire (CQ) or Hopkins Competency Assessment Test (HCAT) to give an outcome of mental capacity (Aydin Er and Sehiralti, 2014, Curley et al., 2019b, Fraguas et al., 2007, Di and Cheng, 2013, Hoffman and Srinivasan, 1992, Jones et al., 1998, Kitamura et al., 1998, Mandarelli et al., 2014, Mandarelli et al., 2018, Melamed et al., 1999, Paul and Oyebode, 1999, Vollmann et al., 2003, Roth et al., 1982), however there were multiple cut-off scores and methods used.

Twenty studies gave binary estimates of mental capacity. The estimated proportion of mental capacity in the studies ranged from 5% (Paul and Oyebode, 1999) to 83.7% (Jones et al., 1998). Due to the heterogeneity of the study populations and differing methods of assessing mental capacity, it was not possible to combine the results mathematically.

Nine studies used a four factor approach to determine capacity using legal criteria as set out in the MCA 2005 and The Assisted Decision-Making (Capacity) Act 2015 to give a binary outcome for mental capacity (Beckett and Chaplin, 2006, Cairns et al., 2005a, Cairns et al., 2005b, Curley et al., 2019c, Owen et al., 2008, Owen et al., 2009a, Owen et al., 2009b, Spencer et al., 2018, Tor et al., 2020); three papers determined categorical mental capacity with full, partial and lacking mental capacity to give an even more clinically applicable assessment of mental capacity (Curley et al., 2019b, Hoffman and Srinivasan, 1992, Aydin Er and Sehiralti, 2014);
3.2.3. Two forms of assessment

Four studies used both the MacCAT-T and a legal binary outcome on the same population (Cairns et al., 2005a, Curley et al., 2019c, Owen et al., 2008, Spencer et al., 2018); two papers used both the MacCAT-T and a clinical decision giving a binary outcome (Fernandez et al., 2017, Vollmann et al., 2003); one paper used both the MacCAT-T and a clinical decision giving a categorical outcome (Aydin Er and Sehiralti, 2014); one paper used both the CQ and a binary clinical assessment of mental capacity (Billick et al., 1996); and one paper used both the CIS and a binary clinical assessment of competency (Bean et al., 1996).

Only two studies showed specific correlation between the judgement of decision-making capacity and scores on MacCAT-T (Curley et al., 2019c, Cairns et al., 2005b). One study showed correlation between the MacCAT-T and binary clinical assessment (Fernandez et al., 2017). Other papers used the MacCAT-T to guide their binary judgement (Cairns et al., 2005a, Owen et al., 2009b, Owen et al., 2008, Owen et al., 2009a, Owen et al., 2013, Spencer et al., 2018). However, Aydin Er and Sehiralti (2014) showed no correlation between MacCAT-T and the judgement evaluation carried out by physicians, nurses and relatives. Vollmann et al. (2003) reported substantially more patients with impaired competency as assessed using the MacCAT-T with cut-off binary outcome compared to the clinical assessment.

Billick et al. (1996) used the CQ and a binary clinical assessment to determine competency to consent to psychiatric hospitalisation and treatment. The CQ was validated in this study by comparing results to a blind forensic clinical interview. The
researchers concluded that a CQ score of >7 would be categorised as competent; <5 incompetent and between 5 and 7 would require further clinical review.

### 3.2.4. Admission status and mental capacity

Eight papers gave separate results for decision-making capacity in those who were voluntarily and involuntarily admitted (Table 3.4). The rate of mental capacity in voluntary inpatients ranged from 29% (Beckett and Chaplin, 2006) to 97.9% (Curley et al., 2019c). It is worth noting that the study by Beckett and Chaplin (2006) evaluates patients with acute mania only. The rate of decision making capacity in those admitted on an involuntary basis ranged from 7.7% (Curley et al., 2019c) to 42% (Beckett and Chaplin, 2006). All studies, apart from Beckett and Chaplin (2006), had much lower rates of mental capacity in their involuntary inpatient population. This study also found no association between mental capacity and admission status. Similarly, Billick et al. (1996) found no such association. Other studies reported an association between mental capacity and admission status (Aydin Er and Sehiralti, 2014, Curley et al., 2019a, Curley et al., 2019c, Cairns et al., 2005a, Spencer et al., 2018, Bean et al., 1996).

### 3.2.5. Demographic factors and mental capacity

Some studies reported associations with mental capacity and sociodemographic factors.

*Age:* There were mixed findings with age. Of the studies that looked at age as a factor contributing to mental capacity, increasing age was reported to be associated with mental incapacity by Applebaum et al. (Appelbaum et al., 1998a); Roth et al. (Roth et al., 1982); Jones et al. (Jones et al., 1998); Curley et al. (Curley et al., 2019a); and Lapid et
al. (Lapid et al., 2004), who categorized their patients as geriatric (> 65 years) or non-geriatric (< 65 years of age), found that the geriatric group scored slightly lower on understanding, reasoning, and choice but higher on appreciation at baseline. The other studies showed no association with age (Cairns et al., 2005a, Melamed et al., 1997a, Spencer et al., 2018, Billick et al., 1996, Grisso et al., 1997b, Beckett and Chaplin, 2006, Wong et al., 2005, Di and Cheng, 2013, Mandarelli et al., 2014, Vollmann et al., 2003, Tor et al., 2020, Aydin Er and Sehiralti, 2014).

**Gender:** Only one study by Owen et al. (2009a) found an apparent association between female gender and a lack of mental capacity but once confounding factors were controlled for, this association disappeared.

**Education:** Four studies found an association between lower educational level and mental incapacity (Raffard et al., 2020, Roth et al., 1982, Wong et al., 2005, Jones, 1995). Other studies found no such association (Billick et al., 1996, Beckett and Chaplin, 2006, Cairns et al., 2005a, Paul and Oyebode, 1999, Kitamura et al., 1998, Aydin Er and Sehiralti, 2014).

**Diagnosis:** Some studies found an association between mental capacity and diagnosis. Cairns et al. (2005a) reported an association of mental incapacity with a diagnosis of mania and psychosis in particular delusional beliefs; Curley et al. (2019a), Curley et al. (2019c) found an association between mental capacity and a diagnosis other than schizophrenia or related disorder; Grisso and Appelbaum (1995b) found more significant deficits in understanding, reasoning and appreciation of illness in patients
with schizophrenia than major depression; Mandarelli et al. (2018) reported that patients with bipolar affective disorder generally scored higher on the MacCAT-T than those with schizophrenia spectrum disorder; Owen et al. (2009a) reported that manic episodes of bipolar affective and psychotic disorders were most strongly associated with incapacity. Other studies found no association (Melamed et al., 1997b, Aydin Er and Sehiralti, 2014, Billick et al., 1996, Howe et al., 2005). Two studies did not assess differences in terms of diagnosis due to the small numbers in subgroups (Hoffman and Srinivasan, 1992, Tor et al., 2020).

3.3. Summary of papers

Appelbaum et al. (1998a) assessed 100 voluntary psychiatric patients using the Measuring Understanding of Disclosure—Voluntary Hospitalization (MUD-VH) with 89% achieving scores that indicated good comprehension.

Aydin Er and Sehiralti (2014) used the MacCAT-T with a cut-off of ≤4 for understanding, ≤2 for appreciation and ≤5 for reasoning. Expressing a choice was not included. 73.5% had mental capacity to make treatment decisions. They compared the MacCAT-T results to assessments carried out by physicians, nurses and relatives who deemed patients to be fully, partially or lack mental competency (Table 3.2). The MacCAT-T evaluation statistically differed from the judgement evaluation thus recommending the use of an objective tool such as the MacCAT-T to guide competency assessments (Aydin Er and Sehiralti, 2014).
Papers by Bean and colleagues (Bean et al., 1994, Bean et al., 1996) studied competency in psychiatry inpatients referred for ECT. The study used the CIS comprising of 15 questions covering the four areas of ability - to evidence a choice, to understand information related to the treatment, and to manipulate information with appreciation of the situation and consequences. Results were compared to the physician’s judgment. 78% (n=75) were found to be competent by the physician. Assessment with the CIS revealed that 90.5% (n = 19) of patients were incompetent and 88% (n= 66) of the 75 patients found competent by the attending physician correlated with the CIS assessment.

Beckett and Chaplin (2006) assessed inpatients diagnosed with mania through a clinical interview based on the Code of Practice of the Mental Health Act 1983 and guidance published by the British Medical Association and the Law Society. A second assessment took place using 4 domains (understanding, retention, ability to weigh up and communicate a decision, based on the MCA 2005). 38 % had mental capacity regarding treatment. The study showed no correlation between admission status and mental capacity (p=0.37) but found that a higher IQ predicted mental capacity (p=0.008).

Bilanakis et al. (2013) validated the Greek translation of MacCAT-T. The study used the MacCAT-T without cut-off scores. Symptom severity was shown to be negatively correlated with reasoning, appreciation and expressing a choice. Withdrawal and suspiciousness correlated to reasoning, appreciation and expressing a choice. No correlation was found with demographic characteristics. This was a small study (n=39).
Bilanakis et al. (2017) compared decision making capacity in inpatients with schizophrenia to medical inpatients. The MacCAT-T scores in patients with schizophrenia were significantly lower than medical patients. As assessed by the Brief Psychiatric Rating Scale (BPRS), both negative symptoms (anergia) and positive symptoms (hostility and suspiciousness) were associated with poor performance on MacCAT-T.

Billick et al. (1996) used the CQ to assess competency to consent to psychiatric hospitalisation and treatment. The CQ was validated in this study by comparing results to a blind forensic clinical interview, the MMSE, WAIS-R vocabulary subtest and BPRS. 75% were rated as competent following forensic interview. Patients deemed competent had high scores on the CQ. The researchers found no correlation with competency and demographic factors and no association with admission status.

Cairns et al. (2005a) assessed decision making capacity guided by the MacCAT-T to give a binary judgement based on criteria which now make up the that of the MCA 2005. 43.8% (n=49) lacked decision making capacity. Thirty (61%) of those lacking decision-making capacity were detained. Six (9.5%) of those with mental capacity were detained. Mania (p=0.04) and psychosis, in particular delusional beliefs (0.02), poor insight (<0.001), and black and minority ethnic groups were associated with mental incapacity.

Cairns et al. (2005b) assessed mental capacity in a subset of the patients from the previous study (Cairns et al., 2005a). The assessment was carried out by 2 interviewers
and showed a high level of agreement between them at separate interviews (kappa 0.82). On their binary capacity judgements, they rated 43.6% and 45.5% of patients respectively as lacking decision-making capacity.

Curley and colleagues (Curley et al., 2019a, Curley et al., 2019b, Curley et al., 2019c) assessed decision-making capacity in 215 psychiatry inpatients. On multi-variable linear regression analysis using linear scores of the MacCAT-T, mental capacity was significantly associated with voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age (Curley et al., 2019a).

Using the cut-off method established by Kolva et al. (2014), the MacCAT-T scores were adapted to establish categorical mental capacity. A large portion (50.7%) were found to have partial mental capacity (Curley et al., 2019b).

When decision-making capacity was assessed according to the legal criteria of The Assisted Decision-Making (Capacity) Act 2015, over one third of participants (34.9%) lacked mental capacity for treatment decisions. Patients who lacked mental capacity according to the legislation scored significantly lower on all subscales of the MacCAT-T than patients who had mental capacity. (Curley et al., 2019c)

Di and Cheng (2013) used the semi-structured inventory for competence assessment (SSICA), with a cut off score of ≥15/20. 28.1% were considered competent. They found that those in employment were more likely to be competent to make decisions and the
level of symptoms was the most important factor associated with competency to consent.

Fernandez et al. (2017) used the MacCAT-T dimensional scores and compared with the consultant’s opinion. On admission 37.5% lacked decision-making capacity (consultant assessment) and had significantly lower MacCAT-T scores. This improved to 82.1% at 6 weeks and 94.6% at 12 weeks. The inpatients assessed as lacking mental capacity showed a greater degree of impairment of global functioning and symptom severity.

Fraguas et al. (2007) used the CQ to assess competency to consent to psychiatric hospitalisation and was repeated prior to discharge. Using a cut-off score of 8, 43.8% lacked decision-making capacity on admission and 46.6% of these continued to lack decision-making capacity at time of discharge. On admission, severity of the illness did not predict improvement in mental capacity.

Grisso et al. (1997b) was the initial trial of the MacCAT-T and compared competency in 40 psychiatric inpatients diagnosed with schizophrenia or schizoaffective disorder with 40 matched community subjects without a mental illness. Hospitalised patients scored significantly worse in understanding and reasoning than the community subjects. Poor performance was associated with higher level of symptoms.

Grisso and Appelbaum (1995b) completed a study on 6 groups: patients hospitalised for schizophrenia, major depression and ischaemic heart disease along with the 3 matched community groups. They used what are now seen as the precursors to the MacCAT-T:
understanding treatment disclosures (UTD), Perceptions of Disorder (POD) Thinking Rationally About Treatment (TRAT) and Expressing a Choice (EC) to assess ability to consent to treatment. Significant deficits were found in understanding, reasoning and appreciation of illness in patients with schizophrenia and major depression but were more pronounced in the those with schizophrenia.

Hoffman and Srinivasan (1992) assessed competence to consent to psychiatric treatment using the four criteria set out in the Mental Health Act of Ontario. For a patient to be competent they had to meet all four criteria. 35% were found to be competent; 48% were totally incompetent (no criteria met) 17% were partially competent (met at least one criterion and failed at least one)

Howe et al. (2005) used the MacCAT-T in inpatients with a diagnosis of schizophrenia, schizoaffective disorder and bipolar affective disorder and showed no significant difference in MacCAT-T scores between the groups. Conceptual disorganisation and poor attention were associated with mental incapacity. Negative symptoms and hallucinations did not have a significant relationship with competency.

Jones et al. (1998) assessed competency to consent to treatment using the HCAT as a screening test in an inpatient population diagnosed with chronic mental illness. 84% were judged to be competent to consent to treatment meaning they scored ≥4/10 on the HCAT.
Kitamura et al. (1998) used the Structured Interview for Competency/Incompetency Assessment Testing and Ranking Inventory (SICIATRI). While this study included both psychiatric and medical inpatients, there were separate ratings for the psychiatric population. All were voluntary and 76% were found to be competent.

Koren et al. (2005) used the MacCAT-T to assess competency to consent in first episode of schizophrenia. Metacognitive rather than cognitive deficits per se were more strongly associated with compromised mental capacity.

Lapid and colleagues (Lapid et al., 2003, Lapid et al., 2004) assessed mental capacity in inpatients to consent to ECT and to establish if educational intervention had any impact on their capacity. Participants were further categorized as geriatric (> 65 years) or nongeriatric (< 65 years of age)(Lapid et al., 2004). The geriatric group scored slightly lower on understanding, reasoning, and choice but higher on appreciation at baseline. The depressed geriatric group showed adequate mental capacity to consent to ECT but showed greater improvement in decisional capacity with education than the nongeriatric group (Lapid et al., 2004).

Mandarelli et al. (2012) studied inpatients mental capacity to consent to treatment using the MacCAT-T seeking to find out if there was an association between executive functions and decision-making capacity. They found that poorer performance in the MacCAT-T in understanding, appreciation, and expressing a choice was associated with poor executive function.
Mandarelli et al. (2014) used a cut-off criterion for decision-making capacity of scoring below 50% on two or more of the four subscales of the MacCAT-T in 30 involuntary and 30 matched voluntary inpatients. They found that 73% of involuntary and 30% of voluntary patients lacked decision-making capacity.

Mandarelli et al. (2018) assessed decision-making capacity in 131 involuntary patients using the MacCAT-T. They used the criteria of having high treatment decision-making capacity when patients scored >75% on the first 3 subscales of the MacCAT-T and the maximum score for expressing a choice. 22% of this involuntarily detained population showed high decision-making capacity. Patients with bipolar affective disorder generally scored higher than those with schizophrenia spectrum disorder. Negative symptoms were associated with poorer understanding of treatment. Positive symptoms were associated with poorer ability to reason about and appreciate their disorder.

Melamed and colleagues, (Melamed et al., 1997b, Melamed et al., 1999) assessed competency to consent in psychiatric inpatients using the CQ and assigning a cut-off score of 33% or less meaning that they lacked the ability to consent. 34.9% therefore lacked the ability to consent. Those who had previous hospitalisations scored higher than those on their first admission (p<0.05) (Melamed et al., 1999). Association between competency and insight was found but there was no significant difference in age, sex, marital status, occupational status or diagnosis (Melamed et al., 1997b).

Owen and colleagues (Owen et al., 2008, Owen et al., 2009b, Owen et al., 2009a, Owen et al., 2013) assessed decision-making capacity to consent to treatment using the
MacCAT-T and clinical interview, as described by Cairns et al. (2005a). 200 inpatients were assessed by both methods and 325 were assessed using binary clinical judgement only. 60% lacked decision-making capacity. Manic episodes of bipolar affective disorder and psychotic disorders were most strongly associated with incapacity and in this population, insight was the best discriminator of mental capacity, however not in non-psychotic disorders. In those with a psychotic disorder, cognitive performance did not discriminate capacity status (Owen et al., 2009a).

A subsection of the psychiatry inpatient population (n=125) was compared with medical inpatients. Appreciation was judged to be a better ‘test’ of decision-making capacity in the psychiatry inpatient population (Owen et al., 2013).

In the population assessed using both methods (n=200) 24% were voluntarily admitted but lacked mental capacity. These patients reported feeling more coerced and had higher levels of treatment refusal than those with mental capacity (Owen et al., 2009b).

Paul and Oyebode (1999) assessed competence to consent to neuroleptic medication in voluntary inpatients using the hierarchical Consent Rating Scale (CRS). When assessed at a sophisticated level only two patients (5%) were able to give consent; that is, they were able to understand relevant information, appreciate their own situation and understood their treatment and consequences.

Raffard et al. (2020) aimed to validate the French version of the MacCAT-T with results showing high internal consistency and a high degree of inter-rater reliability. They
found correlation between MacCAT-T and clinical variables where DMC was associated with insight, severity of psychotic symptoms and level of education but no other sociodemographic variables.

Roth et al. (1982) used a Two-Part Consent Form to assess competency to consent to ECT. The patients understanding of the nature, purpose, risks, benefits and alternatives of the ECT, and whether the patient was aware of their right to withdraw from the questionnaire were assessed. Patients who had a higher proportion of correct responses were younger, had higher occupational status, were not psychotic, had education greater than high school level, were able to work on the two-part consent form without help, had consented to ECT, and were diagnosed as neurotic or without organic syndromes (p < 0.01 on each of these variables) (Roth et al., 1982).

Seo et al. (2011) developed the Korean Tool of Competency to Consent to Psychiatric Admission Treatment in Mentally Ill (KATOC) consisting of 22 questions of understanding, appreciation, reasoning and expressing a choice. Estimated IQ, insight and MMSE scores were found to significantly correlate to understanding, appreciation and reasoning.

Spencer et al. (2018) assessed mental capacity to make treatment decisions in inpatients with schizophrenia and related psychoses using an ‘expert judgement’ clinical assessment based on the MCA 2005 criteria guided by the MacCAT-T giving a binary outcome for mental capacity. 31% lacked decision-making capacity for treatment. Lack of insight was most associated with a lack of decision-making capacity for treatment.
Sociodemographic variables did not affect mental capacity for treatment decisions.

Tor et al. (2020) assessed decision-making capacity based on the principles in the Singapore Mental Capacity Act which looks at the 4 key factors of the ability of the patient to understand the information, to weigh up the information, to remember the information and to communicate the decision. 75.1% of 175 patients lacked mental capacity. Those who lacked decision-making capacity overall had poorer cognitive and global functioning pre ECT but higher self-rated quality of life.

Vollmann et al. (2003) compared the assessment of competence of the MacCAT-T using the cut-off scores with clinical assessment in inpatients with dementia (scores separated), depression and schizophrenia. Patients with schizophrenia were more impaired than those with depression. Substantially more patients had impaired competency when assessed using the MacCAT-T compared to the clinical assessment (20.0 v. 2.9% of patients with depression, 53.5 v. 18.4% of patients with schizophrenia). No statistically significant differentiating sociodemographic factors were found.

Wong et al. (2005) assessed mental capacity in inpatients with a diagnosis of schizophrenia using the MacCAT-T. Positive and negative symptoms, in particular lack of insight and judgment, unusual thought content, difficulty in abstract thinking, and conceptual disorganization, were found to be correlated with performance in decision-making abilities, as were cognitive deficits. Negative treatment attitude and decision-making impairments were related to nonadherence to medication.
3.4. Discussion

The primary aim of this systematic review was to ascertain the prevalence of mental capacity to make treatment decisions in those admitted to a psychiatric unit and, where separated within studies, to establish the prevalence of voluntary and involuntary patients who lack decision-making capacity. While it was not possible to group the findings mathematically due to the heterogeneity of the studies, it is clear from the rates highlighted in Table 3.3 that most psychiatry inpatients had mental capacity to make treatment decisions. Unfortunately, there is a paradoxical situation of concern where large portions on voluntary patients lack mental capacity, and some involuntarily detained patients have decision-making capacity. All 8 studies which reported separate figures for mental capacity in voluntary and involuntary patients had a proportion of detained patients who possessed mental capacity. This ranged from 7.7% (Curley et al., 2019c) to 42% (Beckett and Chaplin, 2006).

At present in Ireland for a person to be admitted on a voluntary basis they are not required to have decision-making capacity, and a lack of mental capacity is not in the criteria for an involuntary admission under the MHA 2001. Similarly, in England and Wales prior to the enactment of the MCA 2005, informal admission was often facilitated for non-objecting patients who lacked capacity (Owen et al., 2009b). However, in HL v The UK (2005) these restrictions were deemed to be a deprivation of liberty and in breach of the European Convention on Human Rights (Owen et al., 2009b). Subsequently the Mental Capacity Act was amended in 2007 to provide deprivation of liberty safeguards. There is, therefore, an urgent need for legislative clarity in Ireland regarding the ‘voluntary’ psychiatry patient who lacks decision-making capacity in relation to admission. The Mental Health (Amendment) Act 2018
will define a voluntary patient as one with capacity to consent to an admission once commenced. This and other recommendations in the report of the expert group on the review of the MHA 2001 (Department of Health, 2015) are detailed in chapter one and in a published paper by the author (Curley et al., 2019c).

The next aim of the review was to address if there were studies comparing dimensional scores (measured using tools such as the MacCAT-T) and a binary clinical judgement. Eight studies used both the MacCAT-T and legal criteria (Owen et al., 2013, Owen et al., 2009b, Owen et al., 2008, Owen et al., 2009a, Cairns et al., 2005a, Cairns et al., 2005b, Curley et al., 2019c, Spencer et al., 2018) but only 2 papers reported on the direct correlation between the two methods (Curley et al., 2019c, Cairns et al., 2005b), with one study reporting correlation between MacCAT-T and clinical judgement (Fernandez et al., 2017). Two studies showed no correlation between MacCAT-T and clinical judgement (Vollmann et al., 2003, Aydin Er and Sehiralti, 2014). These mixed results could be related to the heterogeneity of the studies populations, differing jurisdictions and definitions of competency. In the absence of a consistent approach to the assessment of decision-making capacity, which was evident in this review, psychiatry in particular remains vulnerable to being seen as not protecting the rights and autonomy of those who suffer from mental illness (Hoffman and Srinivasan, 1992). However, in more recent years there has been a significant move towards functional assessment of capacity where it is assessed as issue specific and time specific. Standardised tools such as the MacCAT-T can help structure clinical and legal assessments. For example, the strong correlation found by Curley et al. (2019c) between the MacCAT-T (i.e. clinical criteria) and assessments of mental incapacity for treatment decisions based on Ireland's Assisted Decision-Making (Capacity) Act 2015 (i.e. legal
criteria), suggests that the MacCAT-T could reasonably be used in clinical practice assisting assessments of mental incapacity based on legal criteria (Curley et al., 2019c). Cairns et al. (2005b) had similar findings.

It was reassuring to find three studies reporting on categorical mental capacity, detailing the prevalence of full, partial or lack of mental capacity (Curley et al., 2019b, Hoffman and Srinivasan, 1992, Aydin Er and Sehiralti, 2014). This categorisation reflects the move towards decision-making supports to aid those who lack full mental capacity to make autonomous decisions where possible. Hoffman and Srinivasan (1992) found that 48% lacked mental capacity but 17% had partial mental capacity while Curley et al. (2019b) found that a substantial proportion (50.7%) of psychiatry inpatients had partial mental capacity; and Aydin Er and Sehiralti (2014) found that 18% had partial competency when assessed by physician, 22.9% had partial competency when assessed by nurses, and 23.1% had partial competency when assessed by the patients relatives.

In Ireland the Assisted Decision-Making (Capacity) Act 2015 now outlines a range of supports as described in chapter 1 to assist this group who lack or have partial mental capacity, with supports including “decision-making assistants”, “co-decision-makers” (joint decision-makers) and “decision-making representatives” (substitute decision-makers) (Kelly, 2017). Decision-making supports aim to optimise mental capacity and increase autonomy among persons with diminished mental capacity through their graduated approach to providing support (Curley et al., 2019b). Further research studies in Ireland and other jurisdictions on categorical mental capacity would help to clarify the extent of the future requirements for decision-support services.
Next this review looked for any demographic factors which were associated with having mental capacity to make treatment decisions in those admitted to a psychiatric hospital. There were few studies which reported significant associations. However, there were mixed findings for association with age and educational level, but there was no association between gender and mental capacity. It is worth noting that many studies did not report on any associations. Other factors, while not specifically reviewed in this paper, are much more consistently associated with decision-making capacity, these include psychosis, severity of illness and lack of insight.

**Strengths and Limitations:**

There were strengths and limitations to this review. Only 9 studies were rated as high quality using the CASP checklist (diagnostic test study). Methods and tools used to assess mental capacity were clear and validated in most cases, and populations for inclusion were well described. However, participation rates were often not addressed, with few studies giving details about non-participants more often choosing a convenience sample as previously reported by Okai et al. (2007). This leaves a risk of selection bias. Studies included were limited to the English language with the potential of missing some important international papers. Many of the studies reported in this review had small samples and therefore there is a risk that associations may be missed or exaggerated as a result.

There was a large variation in the estimates of mental capacity between the studies. This is likely to have been due to the range of tools used to assess capacity, differing legal criteria and the heterogeneity of the study populations.
To conclude, this review provides a comprehensive synthesis of the results of studies examining mental capacity for treatment decisions in the psychiatry inpatient population. It found that most psychiatry inpatients have mental capacity to make treatment decisions. This is an important finding as, while capacity should be presumed, there is often stigma surrounding mental health and mental incapacity may be presumed.

Although there may be impairments in the decision-making capacity of some with mental illness, they should still be encouraged and facilitated to make autonomous decisions where possible. For example, there remains a significant proportion of psychiatry inpatients, especially those detained involuntarily, who lack mental capacity and would benefit from decision-making supports such as those set out in the Assisted Decision-Making (Capacity) Act 2015. Regarding the voluntary patients who passively acquiesce to admission yet lack mental capacity, this could be regarded as unlawful by way of a deprivation of the patients right to liberty. Clearly the legislation in Ireland needs to be updated to address these matters.
Table 3.1 - Embase Search

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<td>4. Beckett &amp; Chaplin</td>
<td>(Beckett and Chaplin, 2006)</td>
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<tr>
<td>Study</td>
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<tr>
<td>5. Bilanakis et al. 2013</td>
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<td>6. Bilanakis, Peritogiannis &amp; Vratsista</td>
<td>(Bilanakis et al., 2017)</td>
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<tr>
<td>7. Billick et al.</td>
<td>(Billick et al., 1996)</td>
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<td>8. Cairns et al.</td>
<td>(Cairns et al., 2005a)</td>
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<td>(Cairns et al., 2005b)</td>
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<td></td>
<td>(Curley et al., 2019a, Curley et al., 2019b, Curley et al., 2019c)</td>
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<tr>
<td>10. Di &amp; Cheng</td>
<td>(Di and Cheng, 2013)</td>
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<tr>
<td>11. Fernandez, Kennedy &amp; Kennedy.</td>
<td>(Fernandez et al., 2017)</td>
</tr>
<tr>
<td>12. Fraguas et al.</td>
<td>(Fraguas et al., 2007)</td>
</tr>
<tr>
<td>13. Grisso, Appelbaum, &amp; Hill-Fotouhi.</td>
<td>(Grisso et al., 1997b)</td>
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<tr>
<td>15. Hoffman &amp; Srinivasan</td>
<td>(Hoffman and Srinivasan, 1992)</td>
</tr>
<tr>
<td>16. Howe et al.</td>
<td>(Howe et al., 2005)</td>
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<tr>
<td>17. Jones et al.</td>
<td>(Jones et al., 1998)</td>
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<td>18. Kitamura et al.</td>
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<td>19. Koren et al.</td>
<td>(Koren et al., 2005)</td>
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<td>20. Lapid et al.</td>
<td>(Lapid et al., 2003, Lapid et al., 2004)</td>
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<td>22. Mandarelli 2014</td>
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<td>23. Mandarelli 2018</td>
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<td>24. Melamed et al</td>
<td>(Melamed et al., 1999, Melamed et al., 1997b)</td>
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<td>(Owen et al., 2008, Owen et al., 2009a, Owen et al., 2013, Owen et al., 2009b)</td>
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<td>30. Spencer et al.</td>
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<td>31. Tor et al.</td>
<td>(Tor et al., 2020)</td>
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<td>32. Vollmann et al.</td>
<td>(Vollmann et al., 2003)</td>
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<td>33. Wong et al.</td>
<td>(Wong et al., 2005)</td>
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<td>Beckett &amp; Chaplin (Beckett and Chaplin, 2006)</td>
<td>17</td>
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<tr>
<td>Caims (Cairns et al., 2005a)</td>
<td>76</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>Curley (Curley et al., 2019c)</td>
<td>176</td>
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<td></td>
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<tr>
<td>Hoffman &amp; Srinivasan (Hoffman and Srinivasan, 1992)</td>
<td>32</td>
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<tr>
<td>Mandarelli 2014 (Mandarelli et al., 2014)</td>
<td>30</td>
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<tr>
<td>Owen 2008 (Owen et al., 2008)</td>
<td>197</td>
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<tr>
<td>Owen 2009 (Owen et al., 2009b)</td>
<td>120</td>
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<td></td>
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<tr>
<td>Spencer et al. (Spencer et al., 2018)</td>
<td>21</td>
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</tbody>
</table>
Chapter 4

Results: Quantitative Study of Capacity to Consent to Treatment in Psychiatry Inpatients
4. Results: Quantitative Study of Capacity to Consent to Treatment in Psychiatry Inpatients

4.1. Introduction

The results of this work have been published in 3 papers (Curley et al., 2019a, Curley et al., 2019b, Curley et al., 2019c). Large sections of this chapter are taken directly from these papers. Firstly, to ascertain how the results were obtained, a brief recap on the statistics used for analysis is provided. Data were analysed using IBM SPSS Statistics 23.

The Student t and Chi Square tests were used for bi-variable analysis as appropriate. Student t-test was used to compare scores on subscales of the MacCAT-T between patients who had mental capacity for treatment decisions according to the Assisted Decision-Making (Capacity) Act 2015 and those who did not.

A multi-variable linear regression analysis was generated with MacCAT-T score as the dependent variable for the analysis. Independent variables were gender, age, marital status, employment status, ethnicity, admission status at time of assessment, clinical diagnosis and psychiatry unit in which the person was admitted. The p value of 0.05 was divided by the number of variables in the analysis in order to correct for multiple testing. With the 8 variables taken into account, statistical correction for multiple testing would reduce the threshold for statistical significance from $p \leq 0.05$ to $p \leq 0.0062$ (i.e., $p \leq 0.05/8$).
A multi-variable binary logistic regression model was generated with mental capacity for treatment decisions as per the Assisted Decision-Making (Capacity) Act 2015 as the dependent variable and gender, age, marital status, employment status, ethnicity, admission status, primary diagnosis and psychiatry unit of admission (Tallaght Acute Psychiatry Unit, Drogheda Department of Psychiatry, St Brigid’s Hospital (Ardee) or Blanchardstown Department of Psychiatry) as the independent variables. Again, with statistical correction for multiple variables (eight) the threshold for statistical significance was reduced to $p \leq 0.0062$.

A multi-variable regression model was also generated with mental capacity (lack of/partial/full mental capacity) as the dependent variable for the analysis. Independent variables were again gender, age, marital status, employment status, ethnicity, admission status at time of assessment, clinical diagnosis and psychiatry unit in which the person was admitted. Similarly with 8 variables, to correct for multiple testing, the threshold for statistical significance was reduced to $p \leq 0.0062$ (i.e., $p \leq 0.05/8$).

The model was tested for multicollinearity, which is when two or more variables are so closely related to each other that the model cannot reliably distinguish the independent effects of each. To achieve this, we calculated a “tolerance value” for each independent variable; tolerance values below 0.25 indicate possible multicollinearity, and tolerance values below 0.10 indicate significant problems with multicollinearity (Katz, 1999). There were no missing data.
4.2. Sample characteristics of study population

The sample characteristics of the study have been described in three published papers (Curley et al., 2019a, Curley et al., 2019b, Curley et al., 2019c). Two-hundred and fifteen patients participated across the four psychiatry inpatients units studied: 62 patients in the Tallaght Acute Psychiatry Unit (28.8%); 59 in Drogheda Department of Psychiatry (27.4%); 13 in St Brigid’s Hospital, Ardee (6.0%); and 81 in Blanchardstown Department of Psychiatry (37.7%).

A small majority of participants (58.1%; n=125) were male. Mean age was 46.2 years (standard deviation [SD]: 17.2). Almost three quarters of participants (74.0%; n=159) were never married; 14.4% (n=31) were married; 7.0% (n=15) separated or divorced; and 4.7% (n=10) widowed. Majorities were unemployed (64.2%; n=138) and of Irish ethnicity (87.0%; n=187). The most common primary diagnoses were schizophrenia and related disorders (42.8%; n=92) followed by affective disorders (36.7%; n=79), psychoactive substance misuse disorders (including alcohol) (7.9%; n=17), neurotic disorders (7.0%; n=15), personality disorders (3.3%; n=7) and others (2.3%, n=5) (Curley et al., 2019a).

A majority of inpatients were voluntary patients at the time of the study (81.9%; n=176). Voluntary and involuntary patients did not differ in terms of age (mean: 46.9 years, SD 17.1, and 43.0, SD 17.1, respectively; t=1.291, p=0.202), gender, marital status, employment status or psychiatry inpatient unit in which they were admitted, but involuntary patients were more likely to be non-Irish and have a primary diagnosis of
schizophrenia or a related disorder (Curley et al., 2019a). The characteristics of the voluntary and involuntary study population are summarised in Table 4.1.

The mean MacCAT-T score for the entire sample (n=215) was 14.13 (SD: 6.34). The distribution of total MacCAT-T scores for mental capacity for treatment decisions was skewed to the left, with a median value of 17.6 (inter-quartile range [IQR]: 7.65-19.5, with a higher score indicating greater mental capacity) (Curley et al., 2019a).
Table 4.1 - Characteristics of voluntary and involuntary psychiatry inpatients included in the study in four adult psychiatry inpatient units in Ireland (Curley et al., 2019a)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Voluntary inpatients n=176 n (%)</th>
<th>Involuntary inpatients n=39 n (%)</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chi Square</td>
</tr>
<tr>
<td>Gender</td>
<td>Male 102 (58.0)</td>
<td>23 (59.0)</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>Female 74 (42.0)</td>
<td>16 (41.0)</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>Never married 129 (73.3)</td>
<td>30 (76.9)</td>
<td>2.918</td>
</tr>
<tr>
<td></td>
<td>Married 24 (13.6)</td>
<td>7 (17.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Separated or divorced 13 (7.4)</td>
<td>2 (5.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Widowed 10 (5.7)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td>Unemployed 110 (62.5)</td>
<td>28 (71.8)</td>
<td>1.200</td>
</tr>
<tr>
<td></td>
<td>Employed 66 (37.5)</td>
<td>11 (28.2)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Irish 158 (89.8)</td>
<td>29 (74.4)</td>
<td>6.696</td>
</tr>
<tr>
<td></td>
<td>Non-Irish 18 (10.2)</td>
<td>10 (25.6)</td>
<td></td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td>Schizophrenia and related disorders 66 (37.5)</td>
<td>26 (66.7)</td>
<td>13.741</td>
</tr>
<tr>
<td></td>
<td>Affective disorders 68 (38.6)</td>
<td>11 (28.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychoactive substance misuse disorders 15 (8.5)</td>
<td>2 (5.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neurotic disorders 15 (8.5)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personality disorders 7 (4.0)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other disorders 5 (2.8)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Voluntary inpatients n=176 n (%)</td>
<td>Involuntary inpatients n=39 n (%)</td>
<td>Statistic</td>
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</tr>
<tr>
<td>Psychiatry unit in which the person was admitted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tallaght Acute Psychiatry Unit</td>
<td>48 (27.3)</td>
<td>14 (35.9)</td>
<td>4.135</td>
</tr>
<tr>
<td>Drogheda Department of Psychiatry</td>
<td>47 (26.7)</td>
<td>12 (30.8)</td>
<td></td>
</tr>
<tr>
<td>St Brigid’s Hospital, Ardee</td>
<td>13 (7.4)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Blanchardstown Department of Psychiatry</td>
<td>68 (38.6)</td>
<td>13 (33.3)</td>
<td></td>
</tr>
</tbody>
</table>

4.3. Clinical and demographic correlates of mental capacity for treatment decisions (MacCAT-T)

On bi-variable testing, mental capacity was inversely correlated with age (Spearman’s r=-0.192, p=0.005) and significantly associated with being employed, voluntary admission status and having a primary diagnosis other than schizophrenia or a related disorder (Table 4.2) (Curley et al., 2019a). On multi-variable linear regression analysis, mental capacity was significantly associated with, in order of strength of association, voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age (Table 4.3) (Curley et al., 2019a). Taking into account the statistical correction for multiple testing which reduced the threshold for statistical significance from p < or equal to 0.05 to p < or equal to 0.0062 made no difference to the results. That is age, employment status, admission status at time of assessment, and primary diagnosis remained significant. This model was statistically significant (p<0.001) and accounted for 44.4% of the variance in mental
capacity between participants. All tolerance values were greater than 0.25 indicating no problems with multicollinearity.
Table 4.2 - Bi-variable analysis of demographic and clinical correlates of mental capacity for treatment decisions among voluntary and involuntary patients in four adult psychiatry inpatient units in Ireland (Curley et al., 2019a)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Median mental capacity score (inter-quartile range)</th>
<th>Statistic</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>17.00 (7.5250-19.30)</td>
<td>Mann-Whitney U: 5019.0</td>
<td>0.177</td>
</tr>
<tr>
<td>Female</td>
<td>18.45 (7.9625-19.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>17.50 (7.40-19.5)</td>
<td>Kruskal-Wallis: 0.221</td>
<td>0.974</td>
</tr>
<tr>
<td>Married</td>
<td>17.25 (7.55-19.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated or divorced</td>
<td>18.2 (14.5-19.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>17.5 (5.8125-19.1250)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>16.3 (6.3250-19.0)</td>
<td>Mann-Whitney U: 6920.0</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Employed</td>
<td>19.0 (15.750-19.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>18.0 (8.10-19.50)</td>
<td>Mann-Whitney U: 2190.50</td>
<td>0.163</td>
</tr>
<tr>
<td>Non-Irish</td>
<td>14.3250 (6.3875-19.0650)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td>18.6750 (14.5125-19.50)</td>
<td>Mann-Whitney U: 854.0</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Involuntary</td>
<td>6.0 (4.50-8.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Median mental capacity score (inter-quartile range)</td>
<td>Statistic</td>
<td>p</td>
</tr>
<tr>
<td>----------</td>
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</tr>
<tr>
<td><strong>Primary diagnosis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia and related disorders</td>
<td>9.00 (5.50-17.575)</td>
<td>Kruskal-Wallis: 43.884</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Affective disorders</td>
<td>19.0 (16.50-19.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychoactive substance misuse disorders</td>
<td>19.0 (17.850-19.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurotic disorders</td>
<td>19.50 (17.30-19.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personality disorders</td>
<td>19.50 (19.0-20.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other disorders</td>
<td>16.10 (8.0-18.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Psychiatry unit in which the person was admitted</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tallaght Acute Psychiatry Unit</td>
<td>16.25 (2.4375-19.50)</td>
<td>Kruskal-Wallis: 7.90</td>
<td>0.048</td>
</tr>
<tr>
<td>Drogheda Department of Psychiatry</td>
<td>18.30 (6.0-19.30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>St Brigid’s Hospital, Ardee</td>
<td>9.550 (2.6250-17.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blanchardstown Department of Psychiatry</td>
<td>18.60 (9.4250-19.50)</td>
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<td></td>
</tr>
</tbody>
</table>
Note: Mental capacity for treatment decisions was assessed using the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) with a range from 0 to 20 (a higher score indicating greater mental capacity) (see text for more details).
Table 4.3 - Linear regression analysis of demographic and clinical correlates of mental capacity for treatment decisions among voluntary and involuntary patients in four adult psychiatry inpatient units in Ireland (Curley et al., 2019a)

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>B</th>
<th>Standard error</th>
<th>P*</th>
<th>Tolerance value a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-1.238</td>
<td>0.680</td>
<td>0.070</td>
<td>0.959</td>
</tr>
<tr>
<td>Age</td>
<td>-0.105</td>
<td>0.023</td>
<td>&lt;0.001</td>
<td>0.692</td>
</tr>
<tr>
<td>Marital status</td>
<td>0.505</td>
<td>0.480</td>
<td>0.294</td>
<td>0.707</td>
</tr>
<tr>
<td>Employment status</td>
<td>2.542</td>
<td>0.737</td>
<td>0.001</td>
<td>0.866</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-1.867</td>
<td>1.116</td>
<td>0.096</td>
<td>0.765</td>
</tr>
<tr>
<td>Admission status at time of assessment</td>
<td>-8.067</td>
<td>0.897</td>
<td>&lt;0.001</td>
<td>0.903</td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td>0.812</td>
<td>0.292</td>
<td>0.006</td>
<td>0.872</td>
</tr>
<tr>
<td>Psychiatry unit in which the person was admitted</td>
<td>0.222</td>
<td>0.216</td>
<td>0.304</td>
<td>0.870</td>
</tr>
</tbody>
</table>

*Note:* This table presents a linear regression analysis of mental capacity for treatment decisions, with mental capacity score (range: from 0 to 20, with a higher score indicating greater mental capacity) as per the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) as the dependent variable; \( r^2 = 44.4\% \); \( p < 0.001 \).

\( a \) All tolerance values were greater than 0.25 indicating no problems with multicollinearity (Katz, 1999).

*statistical correction for multiple testing reduces the threshold for statistical significance from \( p < \) or equal to 0.05 to \( p < \) or equal to 0.0062. In this case, age,
employment status, admission status at time of assessment, and primary diagnosis remain significant; i.e. no change by using this lower threshold.


Seventy-five (34.9%) participants lacked mental capacity for treatment decisions using the criteria in the Assisted Decision-Making (Capacity) Act 2015. Thirty-nine (52%) of psychiatry inpatients who lacked capacity for treatment decisions were voluntary. Multi-variable binary logistic regression analysis showed that patients who lacked mental capacity under the 2015 Act were more likely to be involuntary patients; unemployed; diagnosed with schizophrenia or a related disorder; and older (p<0.05 in all cases; Table 4.5) (Curley et al., 2019c). However, when taking into account the statistical correction for multiple testing which reduced the threshold for statistical significance from p < or equal to 0.05 to p < or equal to 0.0062, this left that only involuntary admission status and a diagnosis of schizophrenia or related disorder remained significant. Older age (p=0.012) and being unemployed (p=0.02) were no longer statistically associated with mental incapacity. Together, these factors accounted for 40.7% of the variance in mental capacity between participants. There was no statistically significant association between mental capacity and gender, marital status, ethnicity or psychiatry unit to which the patient was admitted even when using the higher threshold of p < or equal to 0.05. All tolerance values were greater than 0.25 indicating no problems with multicollinearity in the model.
A small minority of four patients (5.3%) met all four criteria for mental incapacity according to the 2015 Act; i.e. they were unable to understand the relevant information, retain it, weigh it up and communicate a decision. Among the 75 patients who lacked mental capacity, 48 (64.0%) were unable to understand or retain the information; 75 (100%) were unable to weigh up the information; and four (5.3%) were unable to communicate a decision.

The distribution of total MacCAT-T scores was non-normal (skewed to the left) with a median value of 17.6 (inter-quartile range: 7.65-19.5). Mean MacCAT-T score among patients who had mental capacity according to the 2015 Act was significantly higher than that for those who lacked mental capacity (18.53, SD: 1.58 versus 5.93, SD: 2.62; \( t=43.874, \ p<0.001 \)) but it should be noted that even if a participant had a high overall MacCAT-T score they could still lack mental capacity if they performed poorly on a single subscale. Patients with mental capacity according to the 2015 Act, however, scored significantly higher on all sub-scales of the MacCAT-T compared to those without capacity (\( p<0.01 \) in all cases; Table 4.6) (Curley et al., 2019c).

No patient was deemed to lack mental capacity solely owing to communication problems and no additional supports were required for communication in the study apart from addressing patients using clear, short sentences, which we did for all patients.
Table 4.4 - Psychiatry hospital inpatients in Ireland in whom mental capacity for treatment decisions was assessed as per the Assisted Decision-Making (Capacity) Act 2015. Values are numbers (percentages) unless stated otherwise (Curley et al., 2019c)

<table>
<thead>
<tr>
<th>Variables</th>
<th>All patients (n=215)</th>
<th>Mental capacity status as per the Assisted Decision-Making (Capacity) Act 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Has mental capacity (n=140)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>Has mental capacity</td>
</tr>
<tr>
<td>Women</td>
<td>90 (41.9)</td>
<td>64 (45.7)</td>
</tr>
<tr>
<td>Men</td>
<td>125 (58.1)</td>
<td>76 (54.3)</td>
</tr>
<tr>
<td>Mean (SD) age (years)</td>
<td>46.22 (17.1)</td>
<td>45.04 (16.62)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td>Has mental capacity</td>
</tr>
<tr>
<td>Never married</td>
<td>159 (74)</td>
<td>100 (71.4)</td>
</tr>
<tr>
<td>Married</td>
<td>31 (14.4)</td>
<td>21 (15)</td>
</tr>
<tr>
<td>Divorced or separated</td>
<td>15 (7)</td>
<td>12 (8.6)</td>
</tr>
<tr>
<td>Widowed</td>
<td>10 (4.7)</td>
<td>7 (5)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td>Has mental capacity</td>
</tr>
<tr>
<td>Employed</td>
<td>77 (35.8)</td>
<td>61 (43.6)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>138 (64.2)</td>
<td>79 (56.4)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td>Has mental capacity</td>
</tr>
<tr>
<td>Irish</td>
<td>187 (87)</td>
<td>125 (89.3)</td>
</tr>
<tr>
<td>Non-Irish</td>
<td>28 (13)</td>
<td>15 (10.7)</td>
</tr>
<tr>
<td>Admission Status</td>
<td></td>
<td>Has mental capacity</td>
</tr>
<tr>
<td>Voluntary</td>
<td>176 (81.9)</td>
<td>137 (97.9)</td>
</tr>
<tr>
<td>Involuntary</td>
<td>39 (18.1)</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td></td>
<td>Has mental capacity</td>
</tr>
<tr>
<td>Schizophrenia and related disorders</td>
<td>92 (42.8)</td>
<td>37 (26.4)</td>
</tr>
<tr>
<td>Affective Disorders</td>
<td>79 (36.7)</td>
<td>63 (45)</td>
</tr>
<tr>
<td>Psychoactive substance misuse disorders</td>
<td>17 (7.9)</td>
<td>14 (10)</td>
</tr>
<tr>
<td>Neurotic disorders</td>
<td>15 (7)</td>
<td>15 (10.7)</td>
</tr>
<tr>
<td>Personality disorders</td>
<td>7 (3.3)</td>
<td>7 (3.3)</td>
</tr>
<tr>
<td>Other disorders</td>
<td>5 (2.3)</td>
<td>4 (2.9)</td>
</tr>
<tr>
<td>Psychiatry unit in which the person was admitted</td>
<td>All patients (n=215)</td>
<td>Mental capacity status as per the Assisted Decision-Making (Capacity) Act 2015</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Has mental capacity (n=140)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lacks mental capacity (n=75)</td>
</tr>
<tr>
<td>Tallaght Acute Psychiatry Unit</td>
<td>62 (28.8)</td>
<td>37 (26.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 (33.3)</td>
</tr>
<tr>
<td>Drogheda Department of Psychiatry</td>
<td>59 (27.4)</td>
<td>39 (27.9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 (26.7)</td>
</tr>
<tr>
<td>St Brigid’s Hospital, Ardee</td>
<td>13 (6)</td>
<td>6 (4.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 (9.3)</td>
</tr>
<tr>
<td>Blanchardstown Department of Psychiatry</td>
<td>81 (37.7)</td>
<td>58 (41.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23 (30.7)</td>
</tr>
</tbody>
</table>
Table 4.5 - Binary logistic regression analysis of mental capacity status as per the Assisted Decision-Making (Capacity) Act 2015 in psychiatry hospital inpatients in Ireland (Curley et al., 2019c).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Binary logistic regression analysis of mental capacity status as per the Assisted Decision-Making (Capacity) Act 2015*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.721</td>
</tr>
<tr>
<td>Mean (SD) age (years)</td>
<td>-0.033</td>
</tr>
<tr>
<td>Marital status</td>
<td>0.060</td>
</tr>
<tr>
<td>Employment status</td>
<td>1.179</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-0.341</td>
</tr>
<tr>
<td>Admission Status</td>
<td>-3.894</td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td>0.877</td>
</tr>
<tr>
<td>Psychiatry unit in which the person was admitted</td>
<td>0.059</td>
</tr>
</tbody>
</table>

Notes

* Binary logistic regression analysis of mental capacity for treatment decisions with mental capacity status (yes/no) as per the Assisted Decision-Making (Capacity) Act 2015 as the dependent variable; $r^2=40.7\%$

\textsuperscript{a} statistical correction for multiple testing reduces the threshold for statistical significance from $p < \text{or equal to } 0.05$ to $p < \text{or equal to } 0.0062$. In this case only admission status at time of assessment and primary diagnosis remained significant. Older age and being unemployed no longer show a statistically significant association with mental incapacity.
Table 4.6 - Relationship between mental capacity for treatment decisions in psychiatry inpatients in Ireland assessed using (a) legislation (Ireland’s Assisted Decision-Making (Capacity) Act 2015) and (b) a semi-structured clinical interview (MacArthur Competence Assessment Tool for Treatment). Values are numbers (standard deviation) (Curley et al., 2019c).

<table>
<thead>
<tr>
<th>MacArthur Competence Assessment Tool for Treatment (MacCAT-T) scale</th>
<th>MacCAT-T sub-scale</th>
<th>MacCAT-T sub-scale scores (rated from 0 to 2, with higher scores indicating greater mental capacity)</th>
<th>All patients (n=215)</th>
<th>Patients with mental capacity as per the Assisted Decision-Making (Capacity) Act 2015 (n=140)</th>
<th>Patients without mental capacity as per the Assisted Decision-Making (Capacity) Act 2015 (n=75)</th>
<th>Student t-test comparing MacCAT-T sub-scale scores in patients with and without mental capacity as per the Assisted Decision-Making (Capacity) Act 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding</td>
<td>Disorder</td>
<td>1.48 (0.71)</td>
<td>1.88 (0.37)</td>
<td>0.73 (0.55)</td>
<td>18.163</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>1.63 (0.56)</td>
<td>1.86 (0.29)</td>
<td>1.19 (0.67)</td>
<td>10.242</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Benefit/risks</td>
<td>1.15 (0.60)</td>
<td>1.42 (0.43)</td>
<td>0.67 (0.54)</td>
<td>11.134</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>4.26 (1.60)</td>
<td>5.12 (0.70)</td>
<td>2.60 (1.47)</td>
<td>17.338</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Appreciation</td>
<td>Disorder</td>
<td>1.29 (0.87)</td>
<td>1.82 (0.41)</td>
<td>0.26 (0.50)</td>
<td>24.569</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>1.36 (0.84)</td>
<td>1.88 (0.35)</td>
<td>0.39 (0.59)</td>
<td>23.280</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>2.64 (1.61)</td>
<td>3.71 (0.58)</td>
<td>0.64 (0.82)</td>
<td>31.882</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Reasoning</td>
<td>Consequential</td>
<td>1.33 (0.91)</td>
<td>1.92 (0.34)</td>
<td>0.17 (0.42)</td>
<td>33.175</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Comparative</td>
<td>1.31 (0.91)</td>
<td>1.94 (0.32)</td>
<td>0.20 (0.43)</td>
<td>33.206</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Generate consequences</td>
<td>2.45 (1.79)</td>
<td>3.61 (0.86)</td>
<td>0.27 (0.70)</td>
<td>28.873</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Logical consistency</td>
<td>1.42 (0.85)</td>
<td>2 (0)</td>
<td>0.33 (0.53)</td>
<td>37.392</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>5.27 (3.39)</td>
<td>7.95 (0.30)</td>
<td>0.46 (1.18)</td>
<td>55.352</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Expressing a choice</td>
<td>1.96 (0.27)</td>
<td>2.00 (0.00)</td>
<td>1.89 (0.45)</td>
<td>2.795</td>
<td>0.006</td>
<td></td>
</tr>
</tbody>
</table>
4.5. **Categorical mental capacity using MacCAT-T cut-off scores (Curley et al., 2019b)**

The final analysis involved the assessments of categorical mental capacity where the clinical relevance of the MacCAT-T scores were optimised by determining the proportions of patients with (a) no mental capacity, (b) partial mental capacity and (c) full mental capacity; the results of which were published by Curley et al. (2019b). Overall, 1.9% of participants (n=4) lacked mental capacity for treatment decisions; 50.7% (n=109) had partial mental capacity; and 47.4% (n=102) had full mental capacity. With respect to the ability to understand information about diagnosis and treatment, 10.7% of participants (n=23) lacked this ability; 38.6% (n=83) had partial ability; and 50.7% (n=109) had full ability. In relation to appreciation, 28.8% (n=62) lacked the ability to appreciate information relating to their disorder and its treatment; 8.8% (n=19) had partial ability; and 62.3% (n=134) had full ability. In relation to reasoning, 34% (n=73) lacked the ability to reason; 6.5% (n=14) had partial ability; and 59.5% (n=128) had full ability. Only 1.9% (n=4) lacked the ability to express a choice; none had partial ability; and 98.1% had full ability. These proportions did not differ between female and male participants on bi-variable testing (Table 4.7) (Curley et al., 2019b).

The scoring methodology meant that all participants deemed to have full mental capacity for treatment decisions (n=102) had full ability to understand and appreciate relevant information, reason and express a choice. All four participants who lacked mental capacity lacked all four abilities; i.e. lacked the ability to understand, appreciate, reason and express a choice.
Among participants deemed to have partial mental capacity (n=109); 17.4% (n=19) lacked the ability to understand the information; 76.1% (n=83) had partial ability; and 6.4% (n=7) had full ability. In relation to appreciation, 53.2% (n=58) lacked the ability to appreciate information relating to their disorder and its treatment; 17.4% (n=19) had partial ability; and 29.4% (n=32) had full ability. In relation to reasoning, 63.3% (n=69) lacked the ability to reason; 12.8% (n=14) had partial ability; and 23.9% (n=26) had full ability. All participants with partial mental capacity had full ability to express a choice (Curley et al., 2019b).

Again, in this multi-variable regression analysis with 8 variables, statistical correction for multiple testing would reduce the threshold for statistical significance to p < or equal to 0.0062. Therefore, in this case on multi-variable regression analysis, greater mental capacity was significantly associated with, in order of strength of association, voluntary admission status, being employed and younger age (Table 4.8) (Curley et al., 2019b). Using this higher threshold for statistical significance we lose ethnicity (p=0.014) and gender (p=0.041). Gender would have only shown borderline statistically significant association between greater mental capacity and female gender on multi-variable testing (p=0.041) without this correction.

The regression model was statistically significant (p<0.001) and the variables included together accounted for 27.6% of the variance in mental capacity between participants. All tolerance values were greater than 0.25, indicating no problems with multicollinearity (Curley et al., 2019b).
Table 4.7 - Characteristics of female and male psychiatry inpatients included in the study of categorical mental capacity for treatment decisions in four adult psychiatry inpatient units in Ireland (Curley et al., 2019b).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Female inpatients n=90</th>
<th>Male inpatients n=125</th>
<th>Statistic Chi Square</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>59 (65.6)</td>
<td>100 (80.0)</td>
<td>6.700</td>
<td>0.082</td>
</tr>
<tr>
<td>Married</td>
<td>19 (21.1)</td>
<td>12 (9.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated or divorced</td>
<td>7 (7.8)</td>
<td>8 (6.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>5 (5.6)</td>
<td>5 (4.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>56 (62.2)</td>
<td>82 (65.6)</td>
<td>0.260</td>
<td>0.610</td>
</tr>
<tr>
<td>Employed</td>
<td>34 (37.8)</td>
<td>43 (34.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>80 (88.9)</td>
<td>107 (85.6)</td>
<td>0.500</td>
<td>0.480</td>
</tr>
<tr>
<td>Non-Irish</td>
<td>10 (11.1)</td>
<td>18 (14.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia and related disorders</td>
<td>31 (34.4)</td>
<td>61 (48.8)</td>
<td>13.529</td>
<td>0.019</td>
</tr>
<tr>
<td>Affective disorders</td>
<td>44 (48.9)</td>
<td>35 (28.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychoactive substance misuse disorders</td>
<td>3 (3.3)</td>
<td>14 (11.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurotic disorders</td>
<td>6 (6.7)</td>
<td>9 (7.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personality disorders</td>
<td>4 (4.4)</td>
<td>3 (2.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other disorders</td>
<td>2 (2.2)</td>
<td>3 (2.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td>74 (82.2)</td>
<td>102 (81.6)</td>
<td>0.014</td>
<td>0.907</td>
</tr>
<tr>
<td>Involuntary</td>
<td>16 (17.8)</td>
<td>23 (18.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental capacity (total)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>1 (1.1)</td>
<td>3 (2.4)</td>
<td>2.407</td>
<td>0.300</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>41 (45.6)</td>
<td>68 (54.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>48 (53.3)</td>
<td>54 (43.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Female inpatients n=90</td>
<td>Male inpatients n=125</td>
<td>Statistic</td>
<td></td>
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<tr>
<td>--------------------------------</td>
<td>------------------------</td>
<td>-----------------------</td>
<td>-----------</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>Chi Square</td>
<td>p</td>
</tr>
<tr>
<td>Mental capacity (understanding)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>9 (10)</td>
<td>14 (11.2)</td>
<td>3.234</td>
<td>0.198</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>29 (45.6)</td>
<td>54 (43.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>52 (57.8)</td>
<td>57 (45.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental capacity (appreciation)</td>
<td></td>
<td></td>
<td>1.145</td>
<td>0.564</td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>25 (27.8)</td>
<td>37 (29.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>6 (6.7)</td>
<td>13 (10.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>59 (65.6)</td>
<td>75 (60)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental capacity (reasoning)</td>
<td></td>
<td></td>
<td>3.279</td>
<td>0.194</td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>25 (27.8)</td>
<td>48 (38.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>5 (5.6)</td>
<td>9 (7.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>60 (66.7)</td>
<td>68 (54.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental capacity (expressing choice)</td>
<td></td>
<td></td>
<td>0.476</td>
<td>0.490</td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>1 (1.1)</td>
<td>3 (2.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>89 (98.9)</td>
<td>122 (97.6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.8 - Multi-variable regression analysis of demographic and clinical correlates of categorical mental capacity for treatment decisions among inpatients in four adult psychiatry inpatient units in Ireland (Curley et al., 2019b).

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>B</th>
<th>Standard error</th>
<th>P*</th>
<th>Tolerance value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-0.132</td>
<td>0.064</td>
<td>0.041</td>
<td>0.959</td>
</tr>
<tr>
<td>Age</td>
<td>-0.010</td>
<td>0.002</td>
<td>&lt;0.001</td>
<td>0.692</td>
</tr>
<tr>
<td>Marital status</td>
<td>0.035</td>
<td>0.045</td>
<td>0.437</td>
<td>0.707</td>
</tr>
<tr>
<td>Employment status</td>
<td>0.205</td>
<td>0.070</td>
<td>0.004</td>
<td>0.866</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-0.261</td>
<td>0.106</td>
<td>0.014</td>
<td>0.765</td>
</tr>
<tr>
<td>Admission status at time of assessment</td>
<td>-0.499</td>
<td>0.085</td>
<td>&lt;0.001</td>
<td>0.903</td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td>0.036</td>
<td>0.028</td>
<td>0.190</td>
<td>0.872</td>
</tr>
<tr>
<td>Psychiatry unit in which the person was admitted</td>
<td>0.013</td>
<td>0.020</td>
<td>0.515</td>
<td>0.870</td>
</tr>
</tbody>
</table>

Note: This table presents a multi-variable regression analysis of categorical mental capacity for treatment decisions as per the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) as the dependent variable (lack of/partial/full mental capacity); \( r^2 = 27.6\% \); \( p < 0.001 \).

\[a \] All tolerance values were greater than 0.25 indicating no problems with multicollinearity (Katz, 1999).

*statistical correction for multiple testing reduces the threshold for statistical significance from \( p \leq 0.05 \) to \( p \leq 0.0062 \). In this case, age, employment status and admission status at time of assessment remain significant;
however gender which was borderline significant and ethnicity no longer show a statistically significant association.
Chapter 5

Discussion
5. Discussion

Significant proportions of the discussions of the results of this work have been published in four papers of the author (Curley et al., 2019a, Curley et al., 2019b, Curley et al., 2019c, Curley et al., 2021). Large sections have been taken directly from these papers. The papers have been included as appendices (Appendix 11, 12, 13 and 14).

5.1. Discussion: Systematic Review of Studies of Capacity to Consent to Treatment in Psychiatry Inpatients

The primary aims of this systematic review were to ascertain the prevalence of mental capacity to make treatment decisions among psychiatry inpatients and to focus on specific areas of interest within this population. This included the relationship, if any, between decision-making capacity and legal admission status (voluntary and involuntary) and the correlation, if any, between research tools used to measure decision-making capacity and the binary judgements of clinicians using criteria such as those in mental capacity legislation, which are commonly used in clinical practice.

While it was not possible to group the findings mathematically due to the heterogeneity of the studies, it is clear that most psychiatry inpatients have mental capacity to make treatment decisions (Table 3.3). To summarise, we identified 45 papers from 33 studies. The prevalence of decision-making capacity varied between 5% (Paul and Oyebode, 1999) and 83.7% (Jones et al., 1998). The prevalence of decision-making capacity among involuntary patients ranged from 7.7% (Curley et al., 2019c) to 42% (Beckett and Chaplin, 2006), and among voluntary patients ranged between 29% (Beckett and Chaplin, 2006) and 97.9% (Curley et al., 2019c). This reflects a paradoxical situation
whereby some voluntary patients lack mental capacity, and some involuntary patients have decision-making capacity, despite their involuntary status.

This situation stems, in part, from the fact that many jurisdictions, including Ireland, do not include lack of decision-making capacity in their criteria for involuntary admission. In addition, patients who lack mental capacity, but do not object to admission or treatment, can be ‘voluntary’ patients in some jurisdictions, including Ireland at present, although this is due for reform within the Mental Health (Amendment) Act 2018.

In England and Wales, prior to the enactment of the Mental Capacity Act, 2005, informal (i.e. ‘voluntary’) admission was often facilitated for non-objecting patients who lacked capacity (Owen et al., 2009b). These restrictions were, however, deemed to be a deprivation of liberty and in breach of the European Convention on Human Rights. The 2005 Act was subsequently amended to provide deprivation of liberty safeguards. There is a similar need for legislative clarity in Ireland regarding ‘voluntary’ psychiatry inpatients who lack decision-making capacity (Department of Health, 2015).

The Expert Group on Review of the Mental Health Act 2001 made 165 recommendations for reform of the Mental Health Act in 2015 (Department of Health, 2015). Recommendations included changes to the definition of the voluntary patient. As a result, there have been recent updates to mental health legislation in the form of The Mental Health (Amendment) Act, 2018, however it has yet to be commenced. Within this Amendment Act, the definition of the voluntary patient is set to change such that a ‘‘voluntary patient’ means a person who—
(a) has capacity (within the meaning of section 3 of the Act of 2015),

(b) has been admitted to an approved centre, and

(c) has given consent to his or her admission.” (Mental Health (Amendment) Act, 2018).

This revised definition of a voluntary patient makes the position of the voluntary patient much clearer and adopts the principles of the Assisted Decision-Making (Capacity) Act 2015.

To reflect the 2015 Act, the guiding principles of this Amendment Act which are to replace Section 4 of the Mental Health Act 2001 state:

“It shall be presumed that a person in respect of whom a decision is being made has capacity in respect of the matter concerned unless the contrary is shown in accordance with the provisions of the Act of 2015;

A person shall not be considered as unable to make a decision in respect of the matter concerned unless all practicable steps have been taken, without success, to help him or her to do so”; and

“A person shall not be considered as unable to make a decision in respect of the matter concerned merely by reason of making, having made, or being likely to make, an unwise decision” (Section 4(3-5)).
It was also recommended by the Expert Group on the review of the Mental Health Act 2001 to introduce an ‘intermediate’ category of patient. The ‘intermediate’ category would apply to those patients lacking mental capacity to consent to voluntary admission, but do not meet the criteria for involuntary admission.

Article 12 of the United Nations’ (UN) Convention on the Rights of Persons with Disabilities states that all persons have “legal capacity” on an “equal basis with others” regardless of disability. The UN Committee's General Comment No. 1 on Article 12 states that “the denial of the legal capacity of persons with disabilities and their detention in institutions against their will, either without their consent or with the consent of a substitute decision-maker… constitutes arbitrary deprivation of liberty and violates Articles 12 and 14 of the Convention” (United Nations, 2006, para. 40). In addition, the Committee argues that “support in the exercise of legal capacity must respect the rights, will and preferences of persons with disabilities and should never amount to substitute decision-making” (United Nations, 2006, para. 17). But, as Szmukler reflects, interpreting this law in this fashion is not necessarily in patients’ best interests and has the potential to impact on their well-being (Szmukler, 2019).

Appelbaum (2019) suggests ways of navigating this problem but ultimately sees amending Article 12 as the only way to overcome its extreme interpretation, and in the meantime advises ignoring the legislation when it lacks a common-sense approach to managing a vulnerable person with a disability (Appelbaum, 2019). This is indeed a complex area however it is clear that Ireland’s legislation and recommended amendments need to be expediated. (Curley et al., 2019c).
5.1.1. Systemic review of categorical mental capacity

It was reassuring to find three studies reporting on categorical mental capacity, detailing the prevalence of full, partial or lacking mental capacity (Curley et al., 2019b, Hoffman and Srinivasan, 1992, Aydin Er and Sehiralti, 2014). This categorisation reflects the move towards decision-making supports to aid those who lack full mental capacity to make autonomous decisions where possible. Hoffman and Srinivasan (1992) found that 48% lacked mental capacity but 17% had partial mental capacity while Curley et al. (2019a) found that a substantial proportion (50.7%) of psychiatry inpatients had partial mental capacity; and Aydin Er and Sehiralti (2014) found that 18% had partial competency when assessed by a physician, 22.9% had partial competency when assessed by nurses, and 23.1% had partial competency when assessed by the patient’s relatives. In Ireland the Assisted Decision-Making (Capacity) Act 2015 as detailed in chapter one, outlines a range of supports to assist this group who lack or have partial mental capacity, with supports including “decision-making assistants”, “co-decision-makers” (joint decision-makers) and “decision-making representatives” (substitute decision-makers) (Kelly, 2017).

As previously highlighted, in the Calcedo-Barba et al. (2020) metareview, decision-making capacity impairments in psychotic patients are responsive to interventions which simplify information and encourages interventions such as shared decision-making and supports (Calcedo-Barba et al., 2020). Decision-making supports aim to optimise mental capacity and increase autonomy among persons with diminished mental capacity through its graduated approach to providing support (Curley, Murphy, et al., 2019a). Sound legislation is vital if we are to achieve good practice in relation to decision-making capacity. Further research studies in Ireland and other jurisdictions on
categorical mental capacity would help to clarify the extent of the future requirements for decision-support services.

A consistent finding across studies is that most patients with a severe mental illness are able to make treatment decisions. As our systematic review was on studies which took place in the inpatient population, it is therefore a cohort with the highest level of symptomatology and potentially more treatment resistant. However even in this psychiatric population, the majority had mental capacity to make treatment decisions. Advanced planning and shared decision making may help to improve healthcare outcomes for those with mental illness (Calcedo-Barba et al., 2020). In a clinical trial population Hostiuc et al. (2018), found that there was significant improvement in decision-making capacity through the use of enhanced consent forms compared to standard forms. Similarly Larkin and Hutton (2017), found that decision-making capacity responded favourably to interventions including metacognitive training, simplification of information and shared decision-making.

5.1.2. Demographic factors

Next, we looked for any demographic factors which were associated with having mental capacity to make treatment decisions in those admitted to a psychiatric hospital. There were few studies which reported significant associations however there were mixed findings for association with age and educational level, but there was no association between gender and mental capacity. Studies on those aged 18 and over were included but studies were excluded if they were exclusively in those over the age of 65. The decision to exclude studies that were exclusively in those over 65 years of age was taken as this population was not reflective of the psychiatric inpatient population in
general. According to the Health Research Board in 2018, the mean age at admission was 45 years, with a median age of 43 years (Daly and Craig, 2019). Also examining the older populations would introduce more confounding factors without adding significantly to the review.

It is worth noting that many studies did not report on any associations. Similarly, a systematic review by Spencer et al. (2017), found that decision-making capacity is not related to socio-demographic factors but was associated with clinically related factors not covered in our review such as neurocognitive performance and insight (Spencer et al., 2017). These non-demographic factors such as psychosis, severity of illness and lack of insight, while not specifically examined in our review, are much more consistently reported to be associated with decision-making capacity. In a systemic review by Larkin and Hutton (2017), they reported an association between mental capacity to understand information relative to a treatment decision and psychotic symptoms. They also found a correlation between the ability to appreciate information with respect to the treatment decision and symptoms (Larkin and Hutton, 2017). In a study assessing decision-making capacity in clinical trials Hostiuc et al. (2018) found that odds of decreased appreciation and understanding were five times higher in those with a diagnosis of schizophrenia compared to controls who did not have a mental illness. They similarly had a decreased ability to reason and to express a choice. In a metareview by Calcedo-Barba et al. (2020) they reported that psychiatric inpatients who experienced a stressful life event such as hospitalisation, had a higher degree of both positive and negative symptoms, and were adversely affected with respect to their cognition.
5.1.3. Dimensional assessments and binary clinical judgements

Our systematic review aimed to identify studies comparing dimensional assessments of capacity (using tools such as the MacCAT-T) with binary clinical judgements. This is an area that was not addressed in the 2020 Calcedo- Barbra metareview, adding to the importance of our systematic review and study. We found that eight studies used both the MacCAT-T and legal criteria (Owen et al., 2013, Owen et al., 2009b, Owen et al., 2008, Owen et al., 2009a, Cairns et al., 2005a, Cairns et al., 2005b, Curley et al., 2019c, Spencer et al., 2018), but only two papers reported significant correlation between the two methods (Curley et al., 2019c, Cairns et al., 2005b). Another study reported a significant positive correlation between MacCAT-T and clinical judgement (Fernandez et al., 2017), but two others showed no correlation between MacCAT-T and clinical judgement (Vollmann et al., 2003, Aydin Er and Sehiralti, 2014). These mixed results could be related to the heterogeneity of study populations, different reasons for admission, different definitions of capacity, different timing of assessments following admission and different practices or legislation across jurisdictions.

The absence of a consistent approach to the assessment of decision-making capacity, evident in this review, places psychiatry at risk of being seen to not protect the rights and autonomy of people with mental illness, or at least not doing so in a systematic, predictable or reliable way (Hoffman and Srinivasan, 1992). Recent years have seen a significant move towards functional assessments of capacity, where capacity is now regarded as both issue- and time-specific. This is a positive development and will hopefully be implemented consistently across jurisdictions in the coming years and help to resolve this problem.
Standardised tools such as the MacCAT-T can help structure both clinical and legal assessments of capacity and increase consistency. The strong correlation we found between the MacCAT-T and capacity assessments based on Ireland's Assisted Decision-Making (Capacity) Act, 2015, suggests that the MacCAT-T could reasonably be used in clinical practice to assist with capacity assessments that meet legal criteria (Curley et al., 2019c). Cairns and colleagues (2005b) report similar findings. There is a need for more research on tools used to assess mental capacity and their correlation with other tools, clinical judgements and legal criteria in different jurisdictions. Future work could usefully address this issue.

5.1.4. **Strengths and limitation of the systematic review**

There were strengths and limitations to this systematic review. Only nine studies were rated as high quality using the CASP checklist (diagnostic test study). Methods and tools used to assess mental capacity were clear and validated in most cases, and populations for inclusion were well described. However, participation rates were often not addressed, with few studies giving details about non-participants more often choosing a convenience sample as previously reported by others (Okai et al., 2007). This leaves a risk of selection bias. Studies included were limited to the English language with the potential of missing some important international papers. Many of the studies reported in this review had small samples and therefore there is a risk that significant associations might be missed, and random associations might appear significant or exaggerated as a result.
A potential limitation in the systematic review was the relatively large number of studies (n=9) which were only found through the hand searching of bibliographies of included studies. This suggests that there may have been some level of shortfall within the search strategy of the databases despite consultation with the subject librarian. This could perhaps have been improved by doing a search in a further database.

There was a large variation in the estimates of mental capacity between the studies. This is likely to have been due to the range of tools used to assess capacity (MacCAT-T, Hopkins Competency Assessment Test, Competency Interview Schedule, Competency Questionnaire), differing legal criteria and the heterogeneity of the study populations.

Some studies did not specify reasons for admission (e.g., diagnoses) which might have an influence on issues relating to capacity; further study is needed to clarify this issue further. There was also variation in the specificity of the treatment, with most studies assessing mental capacity to consent to treatment; some studies specifying medication or ECT while some chose hospitalisation. There was variation in the timing of assessments. These limitations are common to all systematic reviews of this topic.

This systematic review provides a comprehensive synthesis of the results of studies examining mental capacity for treatment decisions in the psychiatry inpatient population. It was very helpful to have this information to compare with the findings of our research study. We found that most psychiatry inpatients have mental capacity to make treatment decisions. This is an important finding as, while capacity should be
presumed, there is often stigma surrounding mental health and mental incapacity may be presumed.

5.2. Discussion: Quantitative Study of Capacity to Consent to Treatment in Psychiatry Inpatients

5.2.1. Linear mental capacity, sociodemographic factors and comparison with the broader literature (Curley et al., 2019a)

On bi-variable testing, when assessed using the MacCAT-T, mental capacity for treatment decisions in psychiatry inpatients was found to be significantly associated with voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age (Table 4.2). Together, these factors account for almost half (44.4%) of the variance in mental capacity between psychiatry inpatients. On multi-variable linear regression analysis, mental capacity was significantly associated with voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age (Table 4.3).

To date there have been varying results from studies where sociodemographic variables have not been consistently associated with capacity. This is in contrast to clinical variables (Owen et al., 2009a). Okai et al. (2007) also found that socio-demographic variables did not have a major impact on mental capacity, but clinical factors did. Another systematic review found that decision making capacity was not related to socio-demographic factors (Spencer et al., 2017).
Age

The broader literature on age and mental capacity in psychiatry inpatients is decidedly mixed, with some, chiefly older studies (Roth et al., 1982, Norko et al., 1990, Appelbaum et al., 1998b), showing an association between increasing age and mental incapacity and others showing no association for example studies by Melamed et al. (1997a), Cairns et al. (2005a), Beckett and Chaplin (2006). The association that we found between increasing age and mental incapacity was statically significant but relatively small in magnitude (Spearman’s $r=-0.192$, $p=0.005$ on bi-variable testing; $\beta=-0.105$, $p<0.001$ on multi-variable testing). Similarly in this work on multi-variable regression analysis of categorial mental capacity for treatment decisions as per the MacCAT-T as the dependent variable (lack of/partial/full mental capacity) there was an association between younger age and mental capacity ($B=-0.010$, $p<0.001$) (Curley et al., 2019b). However, in our other study mental capacity was not associated with age ($p=0.012$) when capacity was assessed using the Assisted Decision-Making (Capacity) Act 2015 (Curley et al., 2019c) once the threshold for statistical significance was adjusted for multiple testing ($p<\text{equal to } 0.0062$). Multi-variable binary logistic regression analysis did not show statistical association with age in patients who lacked mental capacity under the 2015 Act ($p=0.012$)(Table 4.5) (Curley et al., 2019c).

All three other factors associated with diminished mental capacity in this study of linear capacity assessed using the MacCAT-T had greater effect sizes: involuntary admission status, being unemployed, and having a primary diagnosis of schizophrenia or a related disorder (Table 4.3). Multi-variable binary logistic regression analysis showed that patients who lacked mental capacity under the 2015 Act were more likely to be, involuntary patients and diagnosed with schizophrenia or a related disorder (Table 4.5)
There was no statistically significant association between mental capacity and gender, marital status, ethnicity or psychiatry unit to which the patient was admitted.

**Involuntary admission status**

As already reported, our work found that mental incapacity was associated with involuntary admission in all 3 studies. However mental incapacity was not a characteristic of all those detained to psychiatric units. This is in keeping with results from other studies (Mandarelli et al., 2018, Mandarelli et al., 2014, Cairns et al., 2005a, Owen et al., 2008).

The association between involuntary status and diminished mental capacity that we found is interesting in light of the fact that mental incapacity is not an explicit criterion for involuntary admission in Ireland (or many other countries, such as England). It is, however, likely that involuntary as opposed to voluntary admission status is associated with a greater level of symptoms or diminished insight, and these or similar factors likely mediate the relationship between involuntary admission status and diminished mental capacity identified in this study.

**Employment status**

The association we identified between unemployment and diminished mental capacity might be mediated by educational status, but the overall literature on this relationship is very inconsistent and further study is required to clarify the roles of education and socio-economic variables in relation to mental capacity in this population (Okai et al.,
2007). This finding of association between mental capacity and being employed was also found on regression analysis of categorial capacity (p=0.004). The association that was found on multi-variable binary logistic regression analysis of capacity assessment using the Assisted Decision-Making (Capacity Act) 2015 between capacity and being employed (p=0.02) if p < 0.05, was lost when adjusted for multiple testing (p< or equal to 0.0062) (Curley et al., 2019c).

**Diagnosis**

There is more consistent evidence linking a diagnosis of psychotic illness with impaired decision-making capacity in relation to treatment, although not necessarily in relation to research (Spencer et al., 2018). The results from Mandarelli et al. (2018) also suggest that patients in acute psychiatric units with schizophrenia spectrum disorder patients are at greater risk of impaired decision-making capacity to make treatment decisions. We too found that having a primary diagnosis of schizophrenia or a related disorder was significantly associated with diminished mental capacity for treatment decisions, but the effect of diagnosis was not as strong as the effect of admission status or employment (although it was independent of them) when using the MacCAT-T for linear assessment of mental capacity. There was also a statistically significant association found with a diagnosis of schizophrenia or related disorder on binary logistic regression analysis with capacity assessed using the Assisted Decision-Making (Capacity) Act 2015 (p=0.002) (Curley et al., 2019c).

Larkin and Hutton (2017) found an association between mental capacity to understand information relative to a treatment decision and psychotic symptoms. They found that
psychotic symptoms had a small association with appreciation, a moderate association with understanding and strong associations with reasoning abilities. Research has shown that schizophrenia and related psychotic illnesses are more common in those admitted on an involuntary basis. For example Feeney et al. (2019) found that when looking at male and female involuntary patients, schizophrenia group disorders and affective disorders were the most common diagnoses but schizophrenia group disorders accounted for a greater proportion of male than female involuntary admissions. Curley et al. (2016) reported that diagnosis was significantly related to admission status where 33.6% of admissions with schizophrenia were involuntary. At a rate of 40.9 involuntary admissions per 100,000 population per year, schizophrenia also had the highest involuntary admission rate of any diagnosis (Curley et al., 2016). In their study Owen et al. (2009a) found that insight was the best discriminator in terms of capacity status, in particular in those suffering with a psychotic illness. Insight was less strongly associated with capacity in patients with non-psychotic disorders (Owen et al., 2009a). Ghaemi and Pope (1994) found that insight is associated with voluntary versus involuntary admission and medication compliance. By virtue of the link found in other studies between capacity with insight and psychosis, and involuntary admission, mental incapacity and diagnosis, it stands to reason that it would be acceptable to expect the result of an association in our study of mental incapacity in patients admitted involuntarily and with a diagnosis of schizophrenia or related disorder.

Insight into illness, delusions or requirement for treatment may respond to psychoeducational or cognitive methods of treatment according to research by Ghaemi and Pope (1994). Larkin and Hutton (2017) reported that duration of education and verbal cognitive functioning had small to moderate associations with reasoning and
understanding. Their systematic review reported that better insight and metacognitive ability were associated with better capacity but observed no linear relationship with depression (Larkin and Hutton, 2017).

**Gender**

There was no association found between mental capacity and gender, in line with most other research. The same result of no statistically significant association between gender and mental capacity was found in our studies using other methods of assessment (legal criteria (Curley et al., 2019c) and categorical mental capacity (Curley et al., 2019b)). Owen et al. (2009a) did report a small apparent association between being both female and non-White and lacking capacity. However, when they tested whether these associations could be explained by known confounders, they found that the excess of women lacking mental capacity could be explained once confounding factors were addressed (Owen et al., 2009a). Interestingly in Ireland males generally had higher rates of inpatient psychiatry admission. The results from The Dublin Involuntary Admission Study reported an association between male gender and involuntary status (Curley et al., 2016, Gilhooley et al., 2017, Feeney et al., 2019, Umama-Agada et al., 2018). In 2019, 51% of all admissions were males with rates of admission at 361.4 per 100,000 compared with 340.7 for females. Over half (55%) of first admissions were male with higher rates of admission again at 124.2 per 100,000 compared with 97.7 for females (Daly and Craig, 2019). However, in 2021, 51% of all admissions were female with a slightly higher rate of admission at 331.3 per 100,000 compared with 329.0 for males. But 52% of first admissions in 2021 were male with a higher rate of first admissions, at 127.6 compared with females at 114.4 (Daly and Craig, 2021). Results from Health Research Board’s Annual Report on the Activities of Irish Psychiatric Units and
Hospitals, 2022 found that males accounted for a higher proportion of admissions to general hospital psychiatric units at 53% however 61% of admissions to independent/private and private charitable centres were female (Daly and Lynn, 2022). Therefore, the association between gender and psychiatric admission is not quite clear.

A clearer understanding of the relationships, if any, between gender or other factors that may be linked to various aspects of mental capacity and psychiatric admission could help ensure that patient needs are met, guide more evidence-based service planning, and ensure the rights of both men and women are protected equally in particular their right to treatment and liberty (Feeney et al., 2019).

**Psychiatric Admission Unit**

The finding of no statically significant difference is between the psychiatric admission units is worth noting especially with respect to The St. Brigid’s Hospital, Ardee cohort. These participants were medium to long term residents in an approved centre in contrast to the other 3 units where the majority would have shorter admissions. According to data provided by the Health Research Board, 30% of discharges in 2018 occurred within one week of admission, 17% within 1-2 weeks, almost 20% occurred within 2-4 weeks and 28% occurred within 1-3 months of admission. 94% of all discharges occurred within three months of admission. Within a year of admission, 99% of patients were discharged (Daly and Craig, 2018).

These long stay patients in St. Brigid’s Ardee were all voluntary but many likely fit into the category who passively agree to admission. Many of this particular cohort are more
likely to fall into the category of patients who although voluntarily admitted would benefit from assistance in making decisions and would require deprivation of liberty safeguards or fall into the intermediate category proposed in The Report of the Expert Group on the Review of the Mental Health Act 2001 (Department of Health, 2015).

On 28 November 2018 the Mental Health Commission conducted an in-patient census across all of its regulated in-patient approved centres. This census found that 52% of inpatients had been admitted for less than 3 months, with 41% being admitted for more than 6 months. While this figure is still high it includes figures for medium or longer stay approved centres and it is significantly less than the 100% figure of patients in St. Brigid’s Ardee. Only 10% of the acute inpatient beds were occupied for more than 6 months (Mental Health Commission, 2018). Despite the difference in this small long stay population, there was no statistically significant difference with respect to their mental capacity to make treatment decisions.

Marital Status

There was no statistically significant association found between mental capacity and being married when mental capacity was assessed using the MacCAT-T (Curley et al., 2019(a)), the legal criteria of the Assisted Decision-Making (Capacity) Act 2015 (Curley et al., 2019(c)) or categorical mental capacity (full, partial or lacks capacity using cut-off with MacCAT-T) (Curley et al., 2019(b)). However, in a similar study to our work in the medical inpatient population in Ireland, Murphy et al. (2018) found an association between mental capacity and marital status. Marriage has typically been seen as protective in terms in health, where married adults show better physical health and psychological adjustment than their counterparts who are separated/divorced or those who have never been married (Horn et al., 2013). Studies have shown that
married people in the United States have a better outcome in terms of wellbeing than single people do on a variety of wellbeing measures (Waite and Lehrer, 2003). In 2022, 59% of those admitted to a psychiatric unit in Ireland were single (Daly and Lynn, 2022). However, in terms of mental capacity there has been no significant correlation noted between being single and mental incapacity in psychiatry inpatients.

5.2.2. Categorical mental capacity (Curley et al., 2019b)
Adopting the Kolva et al. (2014) method of using the MacCAT-T to assess for categorical mental capacity, 1.9% of psychiatry inpatients lacked mental capacity for treatment decisions; 50.7% had partial mental capacity; and 47.4% had full mental capacity. Greater mental capacity was significantly associated with voluntary admission status, being employed and younger age. However, while these relationships are statistically significant (i.e. are unlikely to have occurred by chance), they together account for just 27.6% of the variance in mental capacity between participants and leave most of the variance (72.4%) unexplained.

Including the psychiatric unit into which a patient was admitted into the regression analysis was important. Although there was no statistically significant difference found it is worth noting this important result especially in the context of one of the units, St. Brigid’s in Ardee being a medium to long stay unit. It therefore accommodates a particularly complex cohort of patients with longstanding illness. Also, there was no statistically significant difference between the urban units (Tallaght and Blanchardstown) and rural units (Drogheda Department of Psychiatry and St. Brigid’s Ardee).
The previous literature on this topic from a variety of countries shows that between 29% and 45% of psychiatry inpatients lack mental capacity for treatment decisions (Okai et al., 2007; Lepping et al., 2015). When using the categorical mental capacity standard, we found that only 47.4% of psychiatry inpatients in our study had full mental capacity but we sought to develop this literature by identifying patients with “partial” mental capacity, as well as those who lacked mental capacity and had full mental capacity. We took this approach in order to identify the characteristics of patients most likely to benefit from different levels of decision-making supports and to estimate the need for such services to optimise mental capacity among psychiatry inpatients.

The selection of the method used by Kolva et al. (2014) and Murphy et al. (2018) adopted a different method of cut-off in the MacCAT-T as described in Section 2.4.4 to give a categorical outcome to capacity whereby a patient had full, partial or lacked mental capacity. This contrasted to most other mental capacity studies which used cut-offs to arrive at a binary judgement. Examples include Mandarelli and colleagues (2014) who used a cut-off criterion for decision-making capacity of scoring below 50% on two or more of the four subscales of the MacCAT-T; Mandarelli and colleagues (2018) used the criteria of having high treatment decision-making capacity when patients scored >75% on the first 3 subscales of the MacCAT-T and the maximum score for expressing a choice; and Vollman and colleagues (2003) defined impaired capacity as those scoring less than or equal to 4 for reasoning, less than or equal to 3 for reasoning and a score of zero for appreciation of disorder and treatment benefit. However, by identifying this cohort with partial mental capacity and those who lacked mental in this work, was of vital importance given the new supports now available within the Assisted Decision-Making (Capacity) Act 2015. This allowed the author to
identify the cohort of patients who will likely benefit from the provisions within the 2015 Act. Had the author used a more traditional method of using a MacCAT-T cut-off to come to a binary outcome of capacity it is likely that the results would have been closer to those arrived at with the use of the Assisted Decision-Making Capacity Act 2015. Where this study found that 34.9% lacked decision-making capacity under this legislation, the categorical outcome of the MacCAT-T cut-off showed that many of this cohort would likely have partial capacity and benefit from assistance in helping them to make autonomous decisions. Future studies could usefully explore a standardised cut-off for the MacCAT-T, ideally allowing for a categorical outcome so as to keep in line with the less rigid and present-day outlook where mental capacity is no longer an all or nothing phenomenon.

This study found that a substantial proportion (50.7%) of psychiatry inpatients have partial mental capacity. This finding likely highlights the need for decision-making supports in this group, especially among involuntary patients, to assist them in increasing and exercising their mental capacity. As previously described Ireland’s new Assisted Decision-Making (Capacity) Act 2015 outlines three levels of support to assist this group, including “decision-making assistants”, “co-decision-makers” (joint decision-makers) and “decision-making representative” (substitute decision-makers) (Kelly, 2017). This legislation aims to optimise mental capacity and increase autonomy among persons with diminished mental capacity through its graduated approach to providing support (Curley et al., 2019b).
Among the psychiatry inpatients in our study with partial mental capacity (50.7%), all had full mental capacity to express their choice. Smaller proportions were capable of understanding the disorder and its treatment (6.4%), appreciating the disorder and its treatment (29.4%) and reasoning (23.9%). This suggests that majorities of patients with partial mental capacity would likely benefit from support across all three of these areas, especially in relation to understanding the disorder and its treatment.

Our decision to divide mental capacity into three categories (no, partial and full mental capacity) is consistent with Kolva et al. (2014), among others, but contrasts with the approach in Ireland’s Assisted Decision-Making (Capacity) Act 2015 which regards mental capacity as either absent or present, although the constituent elements of mental capacity in the Act (understanding, retention, using or weighing up, and communicating) overlap significantly with those in the MacCAT-T (understanding, appreciation, reasoning and expressing a choice). In our study, patients we categorised as having no or partial mental capacity would be regarded as having no mental capacity according to the 2015 Act’s binary definition.

In the original study using this method of categorisation of mental capacity using the MacCAT-T, Kolva et al. (2014) assessed mental capacity for decision making at the end of life. They found impairment in understanding in 25% of participants; impaired appreciation in 20.8%; impaired reasoning in 62.5%; and impaired expression of choice in 8.3% of participants (Kolva et al., 2014). There have been no other studies to date using this particular method in the psychiatry population however Murphy et al. (2018) assessed mental capacity in three hundred medical and surgical inpatients in hospitals in
Ireland using this approach. In this study mean MacCAT-T score was reported as 14.80 (SD: 8.40). With respect to mental capacity for treatment decisions, 27.7% (n= 83) lacked mental capacity; 1.7% (n=5) had partial mental capacity and 70.7% (n= 212) had full mental capacity (Murphy et al., 2018). This research showed that in the subscales of the MacCAT-T, there was less than acceptable mental capacity for medical decisions as follows: understanding (28.7%), appreciation (24.6%), reasoning (29.0%) and expressing a choice (26.6%).

When Kolva et al. (2014) assessed decision-making, they found that all participants were able to express a treatment choice, only two participants (8.3%) had borderline capacity, the remainder were unimpaired (n = 22, 91.7%). However, a significant limitation of this study was its small numbers (n=24). A further study of terminally ill patients by Kolva et al. (2018) found that there was full or partial impairment on the understanding (44.2%), appreciation (49.0%) and reasoning (84.4%) subscales of the MacCAT-T in this specific subgroup of hospital inpatients (Kolva et al., 2018). This highlights the importance of assistance for decision making in a wider population; medical or surgical patients, those suffering with a terminal illness or a mental illness.

Table 5.1 portrays a significant finding that a greater portion of medical inpatients (71%) had mental capacity to make treatment decisions at the time of assessment compared to psychiatry inpatients (47%), with a portion of these assessments taking place on different wards in the same hospital (Tallaght University Hospital, Dublin). In the medical inpatients those who lacked mental capacity were more likely to be older, unmarried, not working outside home and have more diagnoses (Murphy et al., 2018).
For the psychiatry inpatients those who lacked capacity were more likely to be involuntarily admitted, unemployed and older (Curley et al., 2019b).

There were more patients with partial insight into the treatment of their mental illness and less psychiatry inpatients lacked mental capacity. As previously stated, assistance for those with partial mental capacity to make decisions about their treatment is essential. Supports may also help those who lack mental capacity to make informed decisions in keeping with their will and preferences.
Table 5.1 - Comparison of categorical mental capacity for treatment decisions using cut-off scores with MacCAT-T as described by Kolva et al. (2014) in medical (Murphy et al., 2018) versus psychiatry (Curley et al., 2019b) inpatients in Irish hospitals

<table>
<thead>
<tr>
<th></th>
<th>Medical &amp; Surgical inpatients (n=300)</th>
<th>Psychiatry inpatients (n=215)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full mental capacity</td>
<td>71%</td>
<td>47%</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>2%</td>
<td>51%</td>
</tr>
<tr>
<td>Lack mental capacity</td>
<td>28%</td>
<td>2%</td>
</tr>
</tbody>
</table>

The 2015 Act takes a more nuanced approach when it outlines decision-making supports compared to its binary outcome with the capacity assessment whereby capacity with respect to a particular decision is either present or absent. However, the 2015 Act implicitly recognises a middle category in which impaired mental capacity can be restored by a decision-making assistant or co-decision-maker. For example, the involvement of a co-decision-maker as a joint decision-maker would result, according to the Act, in a capacitous decision by the person themselves (the “appointer”). More specifically, Section 21(4)(f) states that an “application to register a co-decision-making agreement” must be accompanied by “a statement by a registered medical practitioner and a statement by [another] healthcare professional” that “the appointer has capacity to make the relevant decisions specified in the co-decision-making agreement with the assistance of the co-decision-maker”.

Overall, in terms of the interaction between our findings of categorical mental capacity and the 2015 Act, patients we identified as having full mental capacity for treatment decisions (47.4%) would not require any supports under the legislation; those with
partial mental capacity (50.7%) would likely benefit from decision-making assistants or co-decision-makers; and those who lacked mental capacity (1.9%) might require a “decision-making representative” for treatment decisions (i.e. substitute decision-making), especially if decision-making assistants or co-decision-makers did not appear appropriate or did not prove sufficient.

The distribution of mental capacity scores in this part of the study assessing categorical mental capacity for treatment decisions was non-normal and skewed to the left. Our decision to divide mental capacity into three categories (no, partial and full mental capacity) was decided prior to data collection, based on the criteria used for mental capacity in the MacCAT-T and the methodology of Kolva et al. (2014), among others. Other divisions or categorisations could, however, usefully be investigated in the future, based more closely on distributions of mental capacity scores in relevant populations, such as that demonstrated in this study.

At the time of writing this thesis there were no other studies using this method of categorisation of mental capacity in psychiatry inpatients in Ireland or in other jurisdictions. Aydin Er and Sehiralti (2014) used cut-off scores for MacCAT-T dimensions: \( \leq 4 \) for understanding, \( \leq 2 \) for appreciation and \( \leq 5 \) for reasoning. These cut-off scores were in keeping with Grisso and Appelbaum (1995a) who had applied this method. A patient who was assessed to be incompetent in one of the dimensions was considered incompetent to make a treatment decision. Aydin Er and Sehiralti (2014) compared results of physicians, nurses and relatives but just for the purpose of comparison with our study at this point we looked at the results of physicians which
showed 43 (51.8%) were competent, 15 (18.1%) were partially competent and 25 (30.1%) were incompetent. A demographic characteristic which our work didn’t consider but showed significantly improved decision-making competence was the patient’s living arrangements. Patients who lived with their families demonstrated poorer competence in decision making than those living alone (Aydin Er and Sehiralti, 2014). They also found that patients hospitalised who were admitted voluntarily and were admitted for the first time, were more competent to make treatment decisions than patients involuntarily admitted or had a previous admission. In contrast to our work and that of others, diagnosis was not found to impact on decision-making capacity. But most importantly, this study recognised the existence of this partial capacity group who would benefit from decision-making assistance.

In Turkey, Hoffman and Srinivasan (1992) assessed competence to consent to psychiatric treatment using the four criteria set out in the Mental Health Act of Ontario. For a patient to be competent they had to meet all four criteria. 35% were found to be competent; 48% were totally incompetent (no criteria met) 17% were partially competent (met at least one criterion and failed at least one). In this way they used the legal criteria not to come to the usual binary outcome adopted in the legislative approach but formed 3 categories of competent, partially competent and incompetent. If we compare to the method other studies used when assessing within legislation in Ireland and England, where if a person falls short on one of the areas (understanding, retention, weighing up information or communication a decision) they are seen as incompetent, the Ontario study would have resulted in 65% of patients being incompetent. Both this study, our study and that of Aydin Er and Sehiralti (2014) highlight this middle category of patient (Table 5.2) which require decision-making
supports to help them to improve and regain mental capacity. The next section will
discuss the findings of assessments using the legal criteria in Ireland and England to
come to a binary decision regarding mental capacity for treatment decisions.
Table 5.2 - Comparison of categorical mental capacity assessed using different methods in 3 countries

<table>
<thead>
<tr>
<th></th>
<th>Psychiatry inpatients in Ireland (n=215)</th>
<th>Psychiatry inpatients in Turkey (n=83)</th>
<th>Psychiatry inpatients in Canada (n=60)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full mental capacity</td>
<td>47%</td>
<td>51.8%</td>
<td>35%</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>51%</td>
<td>18.1%</td>
<td>18%</td>
</tr>
<tr>
<td>Lack mental capacity</td>
<td>2%</td>
<td>30.1%</td>
<td>48%</td>
</tr>
</tbody>
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5.3. Mental incapacity for treatment decisions using legal criteria (Assisted Decision-Making (Capacity) Act 2015) (Curley et al., 2019c)

Over one third (34.9%) of psychiatry inpatients lacked the mental capacity for treatment decisions according to Ireland’s legal criteria for mental incapacity in the Assisted Decision-Making (Capacity) Act 2015. Again, this high rate of mental incapacity highlighted the underlying need for Ireland’s new mental capacity legislation and emphasises the importance of the recent commencement of the 2015 Act. The finding of high rates of mental incapacity in this population is consistent with studies from other jurisdictions which report similar rates of mental incapacity among psychiatry inpatients and highlight the importance of devoting renewed attention to mental incapacity in psychiatry settings (Okai et al., 2007; Lepping et al., 2015).
5.3.1. Mental incapacity in voluntary psychiatry inpatients (Curley et al., 2019c)

Over half (52%) of psychiatry inpatients who lacked mental capacity in our study were voluntary as opposed to involuntary patients. This paradoxical situation is of particular concern. Ireland’s Mental Health Act 2001 primarily legislates for involuntary admission and the definition of voluntary patient does not require mental capacity for treatment decisions. As discussed in Section 5.1 there is an urgent need for the legislative amendment for the ‘voluntary’ patient and clarity regarding ‘voluntary’ psychiatry admission and mental capacity, to address in particular the situation of the ‘voluntary’ patient who lacks decision-making capacity in relation to admission and treatment but passively acquiesces to both.

Ironically, patients involuntarily admitted under the Mental Health Act 2001 benefit from free, automatic legal representation, free, independent second opinions, and automatic external review through mental health tribunals, but there are no equivalent provisions to protect the ‘voluntary’ patient. The Assisted Decision-Making (Capacity) Act 2015 usefully reiterates that there is a presumption of mental capacity for all, but there is also a need to ensure that voluntary inpatients who lack mental capacity are identified in order to better promote their rights and dignity.

5.3.2. Mental capacity in involuntary psychiatry patients (Curley et al., 2019c)

A person may be involuntarily admitted under Ireland’s Mental Health Act 2001 if they are found to be ‘suffering from a mental disorder’ (Section 8(1)) and meet the criteria of Section 3(1)(a) (risk criterion) and/or Section 3(1)(b) (treatment criterion), as previously outlined in Chapter 1. A lack of mental capacity for treatment decisions is not among
these criteria, however it is commonly assumed in practice that involuntary patients lack such mental capacity. While our finding was that the majority of involuntary patients (92.3%) indeed lacked mental capacity for treatment decisions, we also found that a small but significant minority (7.7%) retained mental capacity despite their involuntary status.

It is possible that these patients did not have that mental capacity on admission but had regained it by the time of our study, or that they were due for consultant review and potential revocation of their involuntary admission order in the days following our assessment. As this was a cross-sectional study however, we did not have any other assessments to establish mental capacity at other time-points and so could not elucidate these possibilities to explain our finding. Future research could usefully do so.

Another useful factor which could have added to the value of this work would have been to note whether an involuntary admission was due to the ‘risk’ criterion (Section 3 (1)(a)) or the ‘treatment’ criterion (Section 3(1)(b)). This may have enhanced our understanding of the population of patients who were involuntarily admitted but were assessed to have mental capacity (7.7%). It would be interesting to see if any patients in that cohort were detained based on risk only, with no reciprocal requirement for treatment. Were these patients detained due to risk of suicide? Were any of these patients wrongfully detained due to risk of violence which could have perhaps been better dealt with under criminal as opposed to mental health legislation? I will discuss this idea further in this section.
Section 57(1) of the Mental Health Act, 2001 referring to the involuntary patient states that ‘consent of a patient shall be required for treatment except where, in the opinion of the consultant psychiatrist responsible for the care and treatment of the patient, the treatment is necessary to safeguard the life of the patient, to restore his or her health, to alleviate his or her condition, or to relieve his or her suffering, and by reason of his or her mental disorder the patient concerned is incapable of giving such consent’.

A significant concern here is that it separates treatment without consent from involuntary admission. With respect to treatment without consent, it creates a ‘capacity test’ where there is no such test for involuntary admission under Section 3(1) (Reidy and Kelly, 2021). Although unlikely, our research has shown that it is possible that a patient could have the mental capacity to decline treatment but still fulfil criteria for involuntary admission (7.7% of involuntary admissions, 1% of all admissions (Curley et al., 2019c)). Therefore, a patient such as this could technically be involuntarily admitted but would only receive treatment if they so choose and give consent.

However, if this patient was admitted involuntarily under Section 3(1)(b), and chose not to take medication, this inability to provide treatment would probably mean that the patient would not fulfil the requirement that ‘the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent’. Therefore, such an involuntary admission order would have to be revoked by the consultant psychiatrist (Reidy and Kelly, 2021).
If, however, the patient was admitted under Section 3(1)(a), the ‘risk’ criterion, where there is no legal obligation of benefit from treatment for the patient, theoretically there is potential for such a patient to remain indefinitely without treatment or benefit as an involuntary patient. This situation is unlikely to occur and would likely be seen as a violation of rights and ethics but is still permitted as the legislation stands (Reidy and Kelly, 2021). This could be problematic for the 7.7% of the involuntary patients from our study who were assessed to have mental capacity to make treatment decisions depending on which criteria (‘risk’ or ‘treatment), they were originally admitted under.

In 2015, a review of Ireland’s Mental Health Act 2001 considered the issue of whether criteria for involuntary admission should include a ‘capacity test’ but decided instead that mental capacity should be assessed under the Assisted Decision-Making (Capacity) Act 2015 separately to assessment for involuntary admission under the Mental Health Act 2001. The Expert Group (2015) suggested that ‘if on admission of a patient, the admitting mental health professional forms the view that the person may lack capacity to understand and give his/her informed consent to the proposed admission, they must refer the person for formal capacity assessment to be completed within 24 hours’.

If, following the capacity assessment, ‘it is deemed that a person has capacity to admit themselves, a voluntary admission may proceed. If it is deemed that they need support to understand, to make, or to convey their decision, that support must be provided to assist in the voluntary admission process [using the mechanisms of the 2015 Act; i.e. decision-making assistants, co-decision makers, etc.]. If it is deemed that they do not have mental capacity in relation to this decision, and the person has a mental illness,
they may only be admitted on an involuntary basis provided they satisfy all the criteria for detention. A person who lacks capacity and has a mental illness but does not fulfil the criteria for detention may, in specified circumstances, be admitted as an ‘intermediate’ patient’ (which would be a new category of patient).(Department of Health, 2015)

An ‘intermediate’ patient ‘will not be detained but will have the review mechanisms and protections of a detained person. Such patients would not have the capacity to consent to admission and equally do not fulfil the criteria for involuntary detention’(Department of Health, 2015). For decision-making, the supports of the Assisted Decision-Making (Capacity) Act 2015 would be required for ‘intermediate’ patients.

While these recommendations from the Expert Group have yet to be acted upon, they were designed to address the complex relationship between mental incapacity and psychiatry admission status, ensuring that patients who lack mental capacity but are compliant with treatment have their rights protected. It is hoped that keeping mental capacity assessments separate to involuntary admission criteria will also help ensure that criteria for involuntary admission are not applied discriminatorily to people who lack mental capacity, consistent with the Convention on the Rights of Persons with Disabilities (CRPD) (Curley et al.,2019c).

With the commencement of the Assisted Decision-Making (Capacity) Act 2015, rights for the person whose capacity is in question have improved significantly. However there remains a regrettable shortfall when it comes to protecting the rights of people with
mental illness within Mental Health Act 2001 and careful reconsideration is required in several areas (Reidy and Kelly, 2021). Within the criteria for involuntary admission Section 3(1)(a), there is no mention of treatment. In this case in providing for involuntary admission based solely on the ‘risk criterion’ without the requirement of benefit from treatment, it would be possible legally that a person could have an involuntary admission on the basis of risk only ignoring the prospect of therapeutic benefit from either admission or treatment (Reidy and Kelly, 2021). The Expert Group report noted that ‘the principle of reciprocity demands if someone’s liberty is taken away, there is a parallel duty on the health services to provide appropriate treatment for the person’s mental illness’ (Department of Health, 2015, p.21). It is clear that Section 3(1)(a) does not meet this requirement, and there is also a lack of clarity here between criminal and mental health law. Another limitation in this section is the lack of definition or guidelines regarding what the term ‘harm’ means. Is it in the form of physical violence towards themselves or others or does it extend to psychological harm, even reputational harm? Although some inpatients, in particular those detained involuntarily may regard inpatient psychiatric facilities as prisons, they should not be used for this purpose. A recommendation by Reidy and Kelly (2021) is such that even if there is to be continued detention on the basis of so-called ‘risk’ in Ireland, it should not be possible for such admission to occur within acute psychiatric units which are primarily designed for the treatment of illness and not for the prevention of violence or crime. There has been an example of this application of law in 2020 involving an 18-year-old woman with a personality disorder. The young woman was on bail from the District Court in relation to charges of alleged assault and it was reported that she had recently stated that she might kill her mother or another woman. Irvine J. ordered the disclosure of material to Gardaí regarding her ‘imminent’ risk on the grounds that there
was no basis for her continued detention or wardship proceedings (Carolan, 2020). Despite the potential risk she allegedly posed, as assessed by psychiatrists, she did not meet the criteria for a mental disorder as defined in the Mental Health Act 2001 and therefore was not detaineable. In the reports by psychiatrists, she was found to have the mental capacity to make decisions about her person and finances. The wardship system in operation at the time was not utilised. It was acknowledged that the right to autonomy includes the right to make one’s own choices, even if they appear to be unwise or ill-informed. Therefore, in the absence of mental disorder as defined in the 2001 Act where the actions of a person place others at risk, it is criminal law, rather than mental health law that provides for these situations (Reidy and Kelly, 2021).

Future recommendations for mental health and capacity will be addressed in the final chapter.

5.4. **Comparison with results using the legal criteria in England**

Owen et al. (2009b) used the Mental Capacity Act 2005 to assess mental capacity in 200 psychiatry inpatients in England. They divided the participants into 4 groups based on their decision-making capacity status (capacity/incapacity) and status under the Mental Health Act 1983 (criteria as amended by the Mental Health Act 2007) (detained/informal). Groups were informal/capacity, informal/incapacity, detained/capacity, detained/incapacity. As previously described the criteria within the Mental Capacity Act 2005 are very similar to those of the Assisted Decision-Making (Capacity) Act 2015. In this study, the largest group was capacity/informal (37%) (voluntary with capacity) followed by incapacity/detained (34%). This left approximately a third falling into the
groups of incapacity/informal and capacity/detained (6%) which could be seen as ethically and legally problematic categories (Owen et al., 2009b). Seeing this as an interesting area Owen and colleagues looked in more detail into the 12 people who were detained and had capacity at the time of their assessment by looking at their case records to ascertain the circumstances surrounding their admission. These patients fell into three broad groups. The first group (n=5) likely lacked capacity on admission but improved rapidly. Three of these were psychotic. The second group again with five people of whom 2 were psychotic had presented with behaviour recently that was suggestive of future self-harm or violence. They were unable to ascertain the individual’s intentions.

Finally, the third group of two people both with a psychosis, had considerable contact with the mental health services previously. Owen and colleagues reported that it appeared as if there was a level of engineering of an involuntary admission on the patients part, likely in an attempt to have respite from problems in the community (Owen et al., 2009b).

A review of the breakdown of factors such as diagnosis, treatment if any administered, any high-risk behaviour or violence, and point in time during admission at which assessment took place for example that may impact on this particular group of patients would be helpful in future research to gain more knowledge about this cohort of people. A noticeable difference between the Irish and English legislation is the inclusion of personality disorders as grounds for involuntary treatment in England and Wales. Owen et al. (2009b) noted that their capacity assessments were not carried out at the exact time
of clinical assessment when the decision to admit the patient to a psychiatric unit was made. However, the majority did take place within 3 days. Owen and colleagues, comment that this time lag could pose a problem in terms of missing those with rapidly fluctuating capacity, however, they felt this would likely only be a factor in those with drug or alcohol problems or those in emotional crises. They reported that the majority of individuals admitted were not done on the basis of such disorders but had psychotic or affective illnesses therefore less likely to involve significant capacity fluctuation in such a short time (Owen et al., 2009b).

For the treatment of those who fall into the category of incapacity/informal group, the principles of the Mental Capacity Act 2005 would be applied, therefore any treatment provided must be the least restrictive option and in in the person’s best interests. However, should this treatment involve deprivation of liberty under article 5 of the European Convention on Human Rights, then a decision would need to be reached between the deprivation of liberty safeguards under the amended Mental Capacity Act and detention under the Mental Health Act (Owen et al., 2009b).

In another study based in England using the legal binary assessment guided by the MacCAT-T Cairns and colleagues (2005a) found that 56.2% of psychiatry inpatients had mental capacity as assessed using the proposed definition of ‘inability to make decisions’ within the Draft Mental Incapacity Bill (England and Wales)(which was soon to become the criteria of the Mental Capacity Act 2005), compared to 65.1% of those in Irish psychiatry units as assessed using the Criteria of the Assisted Decision-Making (Capacity) Act 2015. Sixty-one percent of patients lacking mental capacity
were detained under the Mental Health Act 1983. Nine-point-five percent (n=6) of those assessed to have mental capacity, were detained in psychiatric units in England. Those with a psychotic illness or bipolar affective disorder, who more likely to experience delusions, be involuntarily detained under the Mental Health Act 1983 and be of Black-African or African Caribbean ethnicity, were more likely to lack mental capacity. Looking further at the effect of ethnicity, which may have been due to several factors, however the most important one was diagnosis (Cairns et al, 2005a). Multi-variable binary logistic regression analysis of our work showed that patients who lacked mental capacity under the 2015 Act were more likely to be involuntary patients and diagnosed with schizophrenia or a related disorder (Curley et al., 2019c). We can see some similarities in the findings of the associations in the Irish legislation criteria study, with involuntary admission status and diagnosis of psychotic illness but there was no association found with ethnicity in this work. Cairns and colleagues (2005a) also noted the concerning group of 19 patients who lacked mental capacity but were non-objecting, and as such, because of a lack of safeguards for them, fell into the ‘Bournewood Gap’ (Rv. Bournewood Community and Mental Health NHS Trust, 1999). Since then, the Mental Capacity Act 2005 now legislates for the provision of treatment in such cases (Cairns et al., 2005a).

A more recent study completed by Spencer and colleagues (2018) assessed mental capacity to make treatment decisions in inpatients with schizophrenia and related psychoses using an ‘expert judgement’ clinical assessment based on the MCA 2005 criteria guided by the MacCAT-T giving a binary outcome for mental capacity. 31% lacked decision-making capacity for treatment. Lack of insight was most associated with a lack of decision-making capacity for treatment. Results of these studies using the
Mental Capacity Act 2005 criteria with separation of voluntary and involuntary patients’ results are detailed in Table 4.2 and Table 4.3. The study by Spencer and colleagues (2018) in particular, which was carried out within a year of our own work in Ireland, showed similar prevalence, 31% in England (Spencer et al., 2018) and 34.9% in Ireland lacked mental capacity to make treatment decisions (Curley et al., 2019c).

5.5. **Concordance of mental capacity based on clinical and legal criteria for mental incapacity** (Curley et al., 2019c)

Similar to a study carried out in medical and surgical patients by Murphy et al. (2019), we found that among psychiatry inpatients, assessments of mental incapacity for treatment decisions based on Ireland’s Assisted Decision-Making (Capacity) Act 2015 (i.e. legal criteria) accord very closely with assessments using the MacCAT-T (i.e. clinical criteria). This suggests that the MacCAT-T could reasonably be used both in clinical practice and for assessments of whether or not patients meet the legal criteria for mental incapacity. The MacCAT-T is, however, considerably longer than the legal criteria for mental incapacity outlined in Irish legislation and similar legislation in other jurisdictions (e.g. England and Wales). While this permits a more nuanced exploration of different aspects of mental incapacity with the MacCAT-T, and also possibly helps deepen therapeutic understandings, the MacCAT-T is more time-consuming than the legislative test and also requires training.

It is also worth noting that, despite the similarity in outcomes, the MacCAT-T will not necessarily always accord with legal criteria in every way; for example, the MacCAT-T includes ‘appreciation’ in its criteria while the Assisted Decision-Making (Capacity)
Act 2015 does not. Nonetheless, we still recommend use of the MacCAT-T in clinical practice once it is used following appropriate training, with an awareness of its strengths and limitations, and with an understanding of its relationship with legal criteria (which, in Ireland at least, is a very close relationship).

Table 5.3 compares the results in medical and surgical inpatients in Ireland compared to psychiatry inpatients. A significant majority in both groups had mental capacity (72.3% in medical / surgical and 65.8% in psychiatry inpatients) to make treatment decisions.
Table 5.3 - Mental Capacity as assessed using legislation (Ireland’s Assisted Decision-Making (Capacity) Act 2015) in medical (Murphy et al., 2019) versus psychiatry inpatients in Ireland (Curley et al., 2019c)

<table>
<thead>
<tr>
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<th>Medical &amp; Surgical inpatients (n=300)</th>
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<tbody>
<tr>
<td>Mental Capacity</td>
<td>72.3%</td>
<td>65.1%</td>
</tr>
<tr>
<td>Lacks Mental Capacity</td>
<td>27.7%</td>
<td>34.9 %</td>
</tr>
</tbody>
</table>

5.6. **Strengths of the present work**

This work has several strengths. It is the first significant study of mental incapacity among psychiatry inpatients in Ireland; we included both voluntary and involuntary patients; and the study is comparable in size with leading studies in the field. It also addressed an important and under-studied topic, mental capacity among psychiatry inpatients, despite the ethical challenges inherent in conducting research among patients who might lack mental capacity for both research and treatment decisions, and some of whom are involuntary patients under mental health legislation. To address these issues, a detailed consent procedure was developed, and the study was approved by three research ethics committees before commencement.

This is the first quantitative study of mental incapacity to use the new criteria outlined in the Assisted Decision-Making (Capacity) Act 2015 among psychiatry inpatients in Ireland. It is also, to our knowledge, the first to compare assessments of mental incapacity in psychiatry inpatients based on a legal definition of mental incapacity with assessments based on structured clinical assessment (the MacCAT-T). The study also included both voluntary and involuntary patients and is comparable in size with leading studies in the broader field, thus optimising generalisability. In addition, our post-hoc
power calculation indicated that our sample of 176 voluntary and 39 involuntary patients had adequate power to detect the differing prevalence of mental incapacity across these groups. The finding of the close correlation identified in our work between mental capacity as assessed using the Assisted Decision-Making (Capacity) Act 2015 and MacCAT-T scores (total and all four sub-scales) help to highlight the validity of the assessment criteria for use in clinical practice. This close relationship identified between the definition of mental incapacity in the Assisted Decision-Making (Capacity) Act 2015 and the MacCAT-T subscales highlight the significant external validity in the context of the fact that the four key elements of mental incapacity are highly consistent with those in other jurisdictions (e.g. England and Wales). Based on this, the findings of our work can be generalized to other jurisdictions with comparable definitions of capacity within their legislation.

5.7. Limitations of this work

Limitations include the fact that our analysis was a cross-sectional, observational study and did not take account of changes in mental capacity over time. This was to establish point prevalence of mental capacity that is, what proportion of hospital inpatients lack mental capacity at a given time.

To reduce potential risks, there were no patient identifiers gathered and all data was irrevocably anonymised at point of collection. While this was an ethically responsible choice, it left it such that there was no option to go back to repeat assessments or amalgamate other studies that may have been carried out in the study population. For example, assessment of insight, cognitive functioning or psychotic symptoms.
It would have been a useful addition to have noted the number of days into the admission that the assessment was carried out as this could certainly have impacted on the outcome. It is evident from other studies which included more than one capacity assessment, that decision making mental capacity improved later in the admission or prior to discharge. For example, a study in Dublin by Fernandez et al. (2017) found that on admission to a psychiatric unit, 37.5% lacked decision-making capacity (consultant assessment) and had significantly lower MacCAT-T scores. This improved to 82.1% at 6 weeks and 94.6% at 12 weeks.

This work as previously mentioned was a cross-sectional study and we did not have ethical approval to re-assess patient’s mental capacity, however it would be useful for future research to include this and look at potential factors that impact on this improvement. What, if any, medications work better at improving mental capacity to make treatment decisions? Are there certain treatments that help more than others? A study by Dornan et al. (2015) in the forensic psychiatry population in Ireland found improved mental capacity with the treatment of clozapine compared to other antipsychotic medication. A study by Loughran et al. (2022) of 24 patients hospitalised with a major depressive episode showed that treatment with ECT improved patient’s MacCAT-T understanding scores but there was no overall improvement in their decision-making capacity or cognition scores. These factors would be worth exploring further and on a larger scale and in the general adult psychiatry population.

The author is aware that in clinical practice non-urgent treatment decisions may be postponed if there is potential for the patient to regain mental capacity as recommended
in the 2015 Act. Also, it is imperative that information is provided in format appropriate to the patient and anything that can be done to improve mental capacity should be addressed especially for non-urgent matters. Changes in mental capacity are common with improvement noted with treatment and time (Fernandez et al., 2017), and usually consent is deferred where possible to allow for mental capacity to be optimised. This work did not look at all associations between mental illness and mental capacity, however, our study did provide the important outcome of prevalence of mental capacity in the inpatient psychiatry population at the time.

A further limitation in this study was the inconsistency in diagnosis and treatment information that was given to the participants. It would be a useful addition in future research to be able to repeat information to patients, ensuring a clear presentation of information to the patient with options for assistance. It would be beneficial to know how many times relevant information was repeated. This study was reliant on the treating team to provide the information and assessment of the patient’s retention of this information until our review which may have been hours or days after the information was originally relayed to them. This is a limitation. Studies have shown that the way in which information is presented with interventions directed at simplifying information can impact patients’ mental capacity (Calcedo-Barba et al., 2020). Unfortunately, this was not possible as it was not within the ethics approval of this work.

As highlighted above the time point of assessment in terms of admission varied between the patients also. On days when the researcher was assessing patients all those eligible and consenting to participate were approached. This led to a situation where some
patients were assessed on day 1 while for others it may have been much further into their admission. Within the involuntary cohort, a participant could have just been detained or may have been about to have their admission order revoked. There was also the possibility that participants may have had extensive consultation and explanation of treatment with their treating team or very little at time of assessment. However, in order to limit any distress to the patient we had to stick rigidly to not disclosing or repeating any of the treatment information. Again, it was felt that this was an ethically appropriate choice even though there are some limitations for study results in this method.

There was a potential sampling bias with respect to likely omission of some patients impaired by significant mental illness such as severe cognitive impairment and thus likely older patients; those who were very agitated or aggressive and in seclusion; and patients undergoing ECT where many of the patients would not be able to complete a research assessment. This could lead to potential limitations for the generalisability of the study findings and underestimate of mental incapacity. However, as the researcher returned to inpatient units on multiple occasions many who had settled and were no longer in seclusion or had improved somewhat due to treatment may have had the opportunity in participate at another time. It is also worth noting again that with respect to the sample characteristics of our study population they were relatively consistent with those of the Mental Health Commission inpatient census 2018 and Health Research Board report on admissions to psychiatric inpatient facilities for 2018 (Daly and Craig, 2019).
It is customary for consent to be taken by the clinician involved in the proposed treatment or procedure. As per the Irish Medical Council, “as the treating doctor, you should usually give information and seek the patient’s consent yourself as you will have a full understanding of the procedure or treatment, how it is carried out and the risks attached to it” (Irish Medical Council, 2019, para 13.1). These guidelines also note that “taking consent is not a one-off event. It involves a continuing dialogue with the patient, keeping them up-to-date with any changes in their condition and the treatments or investigation proposed”.

According to Hermann et al. (2017) a prerequisite to consent is decision-making capacity. Therefore, a similar sentiment could be applied to a capacity assessment regarding a patient’s treatment, to allow for a treating clinician to give the full information with respect to the proposed treatment. The patient would be required to understand, retain and weigh up this information before communicating their decision about such treatment to demonstrate mental capacity. This work was carried out by a researcher not linked to the treating clinical team. While the researcher had access to the required information to assess capacity it could be argued that this would not have been the same strength of relationship as with their own treating doctor, where a relationship of trust and mutual respect may have developed over time (Hermann et al., 2017, Supady et al., 2011).

A useful addition in future research in the area could be to repeat capacity assessments by the same researcher to allow for the development of a clinical relationship and to compare it to assessments carried out by the treating psychiatrist. This would allow also
to examine the effects of time and treatment in improving mental capacity. However, in keeping with our consent protocol and given that there is presumption of mental capacity in Ireland’s legislation within the Assisted Decision-Making (Capacity) Act 2015, repeated or follow-up capacity assessments of mental capacity for treatment decisions in the psychiatry inpatients of our study were not performed. A longer assessment period similar to Fernandez et al. (2017) could prove useful in future research with the potential to add to existing findings rather than those based on a single assessment. Fernandez et al. (2017) also used the treating consultant’s assessment for the binary outcome of mental capacity. Therefore, a study involving repeated assessments of mental capacity over time would be a valuable addition to the field.

The same rater was used for both clinical and legal assessments of mental capacity in order to facilitate simultaneous assessment (as mental capacity can fluctuate over time) and in order to reflect clinical practice (where it is common for the same doctor to perform both clinical and legal assessments of mental capacity, although this is, arguably, not ideal). The use of a single rater for both assessments, however, had the potential to introduce assessment bias, and while careful training and supervision was provided to minimise this possibility, it is possible that residual bias remained.

Only one diagnosis per patient was recorded (their primary diagnosis) when some patients might have had two significant diagnoses (e.g. schizophrenia and a comorbid psychoactive substance misuse disorder).
In addition, it is important to note that cognitive performance is central to the MacCAT-T assessment of mental capacity and we did not assess cognition in the present study. There is an ultimate need to expand our understanding of factors which may impact on mental capacity for treatment decisions. Future study in the area would benefit from including other assessments such as cognition and insight.

As a consequence, the results of this work as a cross-sectional study, are unable to take account of some of the factors in determining mental capacity for treatment decisions.

The MacCAT-T was chosen as the gold standard, most widely used and reliable tool in assessing mental capacity. However, a drawback with the MacCAT-T is that it does not take emotions into consideration which are important factor in decision making process. A study by Supady et al. (2011) showed an empirical relationship between informed consent and decision-making as assessed using the MacArthur Competence Assessment Tool for Clinical Research (MacCAT-CR), on the one hand, and empathy and emotions on the other. Hermann et al. (2017) questioned the adequacy of reasoning criterion in particular in the capacity assessment. They note that in addressing rational deliberation only within what is referred to as a ‘dual-process model of decision making’, it is failing to take intuitive decision making into account. They outline the potency of intuition in health care decisions and how the current reasoning standard (in both legislative criteria and MacCAT-T) fails to take patient’s decision-making preferences and of deficits in intuitive reasoning into consideration (Hermann et al., 2017).
Although our work categorising capacity into full, partial or lack of mental capacity was based on similar published research (Murphy et al., 2018, Kolva et al., 2014), it would be valuable to have further evaluation into the use MacCAT-T using this method, especially within the psychiatry inpatient population. This would further enhance its use in terms of its reliability and validity in research and clinical practice.

As mentioned, this study did not measure cognitive performance, which is important in the MacCAT-T assessment. That said, while controlling for cognition may have added another dimension to the study, it would have risked 'over-controlling', because cognition is so closely correlated with the MacCAT-T.

5.8. Conclusion

This is the first significant study of mental incapacity among psychiatry inpatients in Ireland. It is an under-studied and important topic which was assessed despite the ethical challenges inherent in conducting research among patients who may lack mental capacity for both research and treatment decisions. This chapter discussed the results of our systematic review, “Decision-Making Capacity to consent to treatment in psychiatry inpatients” (Curley et al., 2021). To our knowledge to date, there were no reviews looking specifically at decision making capacity for treatment decisions in acute psychiatry inpatients alone. This was carried out to examine the literature to determine the extent of the research and existing data in this field. The results of the review are in keeping with the results our of own study show that the majority of psychiatry inpatients have the mental capacity to make treatment decisions.
This research examined the legal criteria for mental incapacity proposed in the Assisted Decision-Making (Capacity) Act 2015, comparing it to scores of a standardised test for clinical assessment of mental capacity (the MacCAT-T). The finding of close correlation between mental capacity assessments based on legal and clinical criteria supports the 2015 Act’s current legal definitions of mental incapacity. This study was first direct comparison of outcomes of legal and clinical assessments of mental incapacity in psychiatry inpatients.

The issue of logistics in implementing the supports described in the Assisted Decision-Making (Capacity) Act 2015 is critical. By having an estimate of the prevalence of mental incapacity for treatment decisions in this population it helps to clarify the extent of the demand for such supports and circuit court hearings which are beginning to take place. In terms of the interaction between our findings of categorical mental capacity and the 2015 Act, patients we identified as having full mental capacity for treatment decisions (47.4%) would not require any supports under the legislation; those with partial mental capacity (50.7%) would likely benefit from decision-making assistants or co-decision-makers; and those who lacked mental capacity (1.9%) might require a “decision-making representative” for treatment decisions (i.e. substitute decision-making), especially if decision-making assistants or co-decision-makers did not appear appropriate or did not prove sufficient. The final chapter in this thesis will review our findings in light of the commencement of the Assisted Decision-Making (Capacity) Act 2015, with recommendations for future directions of research and legislative changes.
Chapter 6

Epilogue
6. Epilogue

6.1. Recap of capacity legislation in Ireland

This research began in 2017, a time when although the Assisted Decision-Making Capacity Act 2015 had been signed by President Michael D Higgins in December 2015, it had not been commenced. This did not take place until April 2023 and was long awaited. The legislative framework, The Lunacy Regulation (Ireland) Act 1871, which Ireland had been working with in terms of capacity was outdated, whereby the wardship system of an all or nothing approach to capacity was utilised in the absence of other systems. Under this legislation, the wardship court gained jurisdiction over all matters in relation to the ‘person and estate’ of an individual who was deemed to lack mental capacity. The ward of court framework did not adequately define “capacity”; had insufficient review mechanisms for existing wards of court and was poorly responsive to changes in capacity. Ireland had signed up to the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in 2007 but did not ratify it until March 2018. The Assisted Decision-Making (Capacity) Act 2015 and the changes with respect to decision making and supports of those who have impaired decision-making capacity have gone a long way towards this ratification and ensured that Ireland was compliant with its obligations under the CRPD in particular Article 12. This allows for “equal recognition before the law”, ensuring “that persons with disabilities enjoy legal capacity on an equal basis with others in all aspects of life” (United Nations, 2006, Article 12).

From a legal perspective, standards for capacity to consent differ between jurisdictions, however the principles are generally similar to the functional approach adopted within the Assisted Decision-Making (Capacity) Act 2015. The Act has followed the approach used in the Mental Capacity Act 2005 in England and Wales which also tests a person’s
ability to understand, retain, use or weigh up information and communicate a decision.

Using this functional approach, a clinician comes to a binary decision regarding a person’s decision-making capacity for treatment.

To summarise the Assisted Decision-Making (Capacity) Act 2015, the aim of the Act is to reform the law for people whose capacity is in question and who need help making decisions.

Within the Assisted Decision-Making (Capacity) Act 2015 “A person lacks the capacity to make a decision if he or she is unable -

(a) To understand the information relevant to the decision,

(b) To retain that information long enough to make a voluntary choice,

(c) To use or weigh that information as part of the process of making the decision, or

(d) To communicate his or her decision (whether by talking, writing, using sign language, assistive technology, or any other means) or, if the implementation of the decision requires the act of a third party, to communicate by any means with that third party” (Assisted Decision-Making (Capacity) Act, 2015, Section 3(2))

The general principles of the 2015 Act provide that capacity should be presumed unless there is evidence to the contrary, even if the patient comes to an unwise decision. Part one of the Assisted Decision-Making (Capacity) Act 2015, looks at the assessment of capacity which is ‘to be construed functionally’, is issue and time specific, and looks at the way in which a decision is reached (Part 1, Section 3)). A person cannot be deemed
to lack capacity “unless all practicable steps have been taken, without success, to help him or her”. Any intervention must be necessary “having regard to the individual circumstances of the relevant person”. It must also minimise restriction of rights and freedom of action and must “respect the right of the relevant person to dignity, bodily integrity, privacy, autonomy and control over his or her financial affairs and property” (Part 1, Section 8(6)). Any intervention must be proportionate to the significance and urgency of the matter and be as limited in duration as possible. In Section 8(7) the intervener, defined as a person who makes an intervention shall “permit, encourage and facilitate, in so far as is practicable, the relevant person to participate, or to improve his or her ability to participate, as fully as possible, in the intervention”. An intervenor must consider the person’s “past and present will and preferences” in so far as they are “reasonably ascertainable”, take account of their “beliefs and values” and “act at all times in good faith and for the benefit of the relevant person”.

New models of supported decision-making are addressed within the Assisted Decision-Making (Capacity) Act (Kelly, 2017). The 2015 Act articulates three levels of supported decision-making: “decision-making assistant”, “co-decision-maker” (joint decision-making) and “decision-making representative” (substitute decision-making), which will be applicable to psychiatry inpatients whose capacity is in question, allowing them to retain as much autonomy as possible. There are also the options of creating an Enduring Power of Attorney or making an Advance Healthcare Directive.
**Decision-making assistant**

A "decision-making assistant" is the lowest level for supported decision making provided in part 3 of the 2015 Act, where the individual appoints someone to help them with specific decisions regarding their “personal welfare or property and affairs, or both”, and to assist them to communicate their “will and preferences” (Part 3, Section 14(1)). The decision-making assistant helps “the appointer to make and express a relevant decision” (Part 3, Section 14(1)) and “ensure that the appointer’s relevant decisions are implemented” (Part 4, Section 23(2)). The “decision-making assistant” cannot make a decision either jointly or on behalf of the person, therefore is an assistant role to support and advise the appointer in making their own decision. There is no procedure for registration of a decision-making assistance agreement.

**Co-decision-maker**

A “co-decision-maker” is appointed either in the same manner as a “decision-making assistant” or via the Circuit Court. For a person to require a “co-decision-maker” the individual is seen to be of reduced capacity but can make a specific decision with the joint authority of a co-decision-maker. The co-decision-maker explains relevant information, ascertains the appointer’s “will and preferences”, and makes the decision jointly with the appointer. “Where a co-decision-making agreement stands registered, a relevant decision made otherwise than jointly by the appointer and the co-decision-maker is null and void” (Part 4, Section 23(2)). For a co-decision-making agreement, a statement is required by a registered medical practitioner or another registered healthcare professional to the effect that: the appointer has the decision-making capacity to enter into the agreement; that they require assistance with the relevant decisions
within the agreement; and that “the appointer has capacity to make the relevant
decisions specified in the co-decision-making agreement with the assistance of the co-
decision-maker” (Part 4, Section 21(4)). The relevant person does not have the capacity
to make the decisions with a decision-making assistant.

Alternatively, an application can be made to the circuit court. In these circumstances, it
is thought that the person does not have the capacity to make the decision about
appointing a co-decision maker. The court will then declare if the person has the
capacity to make these decisions with or without the assistance of a co-decision maker,
or whether despite assistance they lack the capacity to make the decision (Part 5).

**Decision-making representative**

“Decision-making representatives” have the task of substitute decision-making and is
the highest level of supported decision-making. The 2015 Act recognises that a point
may be reached where a person lacks the capacity to make certain decisions even with
support. In this case, where there is no Enduring Power of Attorney or Advance
Healthcare Directive with regard to the decision to be made, the court can appoint a
“decision-making representative”, or in urgent matters make the decision itself (Health
Service Executive, 2017). There are limitations to the decisions a decision-making
representative can make. For example, they “shall not refuse consent to the carrying out
or continuation of life-sustaining treatment or consent to the withdrawal of life-
sustaining treatment for the relevant person” (Part 5, Section 44(4)).
6.2. **As it stands today- The Assisted Decision-Making (Capacity) Act 2015 since commencement:**

We are just over 7 months following the commencement of the Assisted Decision-Making (Capacity) Act 2015. According to the latest update on activity up to 7th November 2023 as per Office of Human Rights and Equality Policy, there have been 6 decision making assistance agreements with 28 pending; 6 co-decision making agreements and 20 pending; there have been 53 decision making representative orders with 51 decision making representative orders pending registration and 180 decision making representative orders going through court processes. There have been 2 discharges from wardship completed. Since April 2023 there were 118 new Wards of Court with 80 more due. These applications were in progress prior to the commencement if the Assisted Decision-Making (Capacity) Act 2015. There have been 12 Enduring Power of Attorney registered with 226 pending (HSE National Office of Human Rights and Equality, 2023).

Progress is slow with respect to current wards of court. There are approximately 2,500 to be processed within 3 years of commencement of the Act taking us up to April 2026 (Decision Support Service, 2023). According to their Autumn Newsletter, The HSE National Office for Human Rights and Equality Policy has continued to provide daily guidance and advice to staff and services in order to facilitate their understanding and enabling them to comply with the 2015 Act requirements. There are now 13 codes of practice which are; Code of Practice for Attorneys, Code of Practice for Co-Decision Makers, Code of Practice for Decision-Making Assistants, Code of Practice for Decision-Making Representatives, Code of Practice for Designated Healthcare Representatives, Code of Practice for Financial Service Providers, Code of Practice for

The Experience of the HSE Office of Human Rights and Equality is that most queries are in relation to Older Persons Services. With respect to a person who lacks decision-making capacity but requires admission to a residential care unit or a nursing home but does not wish to be admitted, an application must be made to the High Court under ‘inherent jurisdiction’ to authorise such an admission. Only the High Court has this authority. This represents a current gap in legislation. The Department of Health has ongoing work to develop a Protection of Liberty Safeguards Scheme to address this (National Office for Human Rights and Equality Policy, 2023).

There is a right to free legal aid for a ‘relevant person’ under the 2015 Act in cases where there is an application being made to appoint a Decision-Making Representative for a relevant person. The person or their supporter can make contact locally with their legal aid centre. In the cases where the HSE intends, on the behalf of a relevant person, to make an application for a Decision-Making Representative, an application must go through the Circuit Court seeking the courts consent first. Should this consent be granted, the application can then proceed by the HSE. It is imperative that the relevant person’s rights are safeguarded, and they are informed of the procedure for free legal
aid. An independent advocate may also be beneficial (National Office for Human Rights and Equality Policy, 2023).

Under Part 5 of the 2015 Act, with respect to applications to the circuit court, the DSS is not a party to applications. For the registration and supervision of the orders, the court sends its decision-making representation orders on to the DSS. With respect to the orders that have been initiated to date, many of them have been in relation to the Nursing Home Support Scheme. It is no longer an option to apply for the appointment of a care representative due to amendments to the Nursing Home Support Scheme Act 2009. When other supports are insufficient, applications to the Circuit Court should be as a last resort.

Since the launch of the Decision Support Service’s ‘My Decision. My Rights’ media campaign, there has been significant increase in demand for information. Up to September, there had been 1,200 queries to the Decision Support Service (DSS) in relation to Enduring Power of Attorney. According to the Autumn Newsletter, the DSS managed over 9,000 queries from the public via telephone and email between 26 April and mid-September 2023. The DSS aims to be accessible and available to stakeholders to ensure the provision of reliable information. The DSS director Áine Flynn commented that there has been encouraging engagement with the DSS online portal by the public. “The legislation facilitates a ‘digital first’ approach” (National Office for Human Rights and Equality Policy, 2023, p.4) therefore documentation that has been digitally created, registered, and retained is essentially treated as original. However Áine Flynn emphasises that the DSS is not ‘digital only’ and to help with accessibility
requirements for some people they will facilitate manual ways of working around the submission of applications and ID verification (National Office for Human Rights and Equality Policy, 2023). By the middle of September 2023, just under 2,500 online accounts which were fully verified had been created. Of the applications in progress at that time, 767 of the 851 applications were to register for the new form of enduring power of attorney legislated within the Assisted Decision-Making (Capacity) Act 2015 (National Office for Human Rights and Equality Policy, 2023). According to the 2015 Act, DSS registers may be accessed by those who satisfy the Director as having a ‘legitimate interest’ or by ‘a body or class of persons prescribed by regulation’, which includes healthcare professionals. The online functionality of this part of the service is under development. The DSS will hold a register of decision-making representative agreements, co-decision making agreements and Enduring Power of Attorneys, but this register will not be live until early 2024, all going to plan. The process of accessing the register still has to be piloted at test sites. As it stands if people have queries, they are to contact the DSS directly and they will manually check the register for example if there is a question regarding the scope of an agreement (National Office for Human Rights and Equality Policy, 2023).

On the 7th September 2023 The Assisted Decision-Making Mentorship Programme was formally launched. In response to feedback and consultations with social and health care staff, the programme was developed to help meet the need for various tools and support for staff to help in the implementation of the changes which are required under the Assisted Decision Making (Capacity) Act 2015. This programme aims to provide specific resources and support for healthcare workers; to build competence and confidence locally. It endeavours to capture and record cases and case studies; to help
find solutions to common problems arising day to day; and to provide data and information which will be used to address broader systemic issues that arise in practice (National Office for Human Rights and Equality Policy, 2023).

Covering acute and community services there are 46 mentors and over 500 mentees. There will be monthly learning for each mentor and mentee where they work through anonymised cases with the aim of enhancing knowledge in practice. The anonymised case studies will be collated in the form of a ‘toolkit’ to support ongoing learning within and beyond the mentorship programme. For example, they will be utilised to inform responses to policy and systemic issues along with future training for social and health care staff (National Office for Human Rights and Equality Policy, 2023).

As Áine Flynn Director of the DSS reported in September 2023, challenges were to be expected across many sectors with the commencement of complex and ambitious legislation which was replacing a 150-year-old system. In general, there has been a positive reception to the 2015 Act. In-keeping with its duty, the DSS review the operation of the Assisted Decision-Making (Capacity) Act 2015 and reports its recommendations to the Government (National Office for Human Rights and Equality Policy, 2023).

6.3. The practical impact of this research:

Using the legal criteria as per the Assisted Decision-Making (Capacity) Act 2015 to assess mental capacity in our study we found that over a third (34.9%, n=75) of psychiatry inpatients lacked mental capacity. The figures from the Health Research
Board (HRB) showed that there were 15,790 admissions to psychiatry units in 2022 (Daly and Lynn, 2022). This ultimately could leave approximately 5,511 psychiatry inpatients who potentially require supports as provided by the 2015 Act.

When assessed for categorical mental capacity using the MacCAT-T and cut-off scores, 1.9% of participants (n=4) lacked mental capacity for treatment decisions; 50.7% (n=109) had partial mental capacity. Again, using the rates of admission for 2022, this could leave over 8,300 psychiatry inpatients who would benefit from assistance in making decisions about the treatment of their mental health in hospital. Using this method to establish categorical mental capacity enabled us to see that there may only be a minority who require substitute decision-making, in the form of a decision-making representative. In the case of our study most likely the 1.9% and a proportion of those with partial mental capacity may require that level of support, others may benefit from lower level of assistance.

This provides a better picture of the inpatient population however the people who are receiving treatment for their mental health in the community must also be taken into account, many of whom may also benefit from decision-making supports. They should be encouraged to make plans for the future should they become unwell and lack capacity to make decisions. In the format of an AHD, it would be useful to know a person’s will and preferences for such a time when they lack capacity. Future research could usefully explore the prevalence of mental capacity for treatment decisions in the community: in those living in mental health hostels, people under the care of home-based treatment teams for mental health, those attending mental health rehabilitation
services or outpatient departments. However, it was a reassuring outcome of our study, where despite the people being assessed having the highest level of mental illness requiring admission to a psychiatric unit, the majority (65.1%) had mental capacity to make treatment decisions (Curley et al., 2019c).

6.4. Recommendations from this work

Stemming from this work there are key areas that I feel would help progress this field of capacity in particular in those with a mental illness.

6.4.1. Use of the MacCAT-T in clinical practice

Assessments of mental incapacity for treatment decisions based on Ireland’s Assisted Decision-Making (Capacity) Act 2015 (i.e. legal criteria) accord very closely with assessments using the MacCAT-T (i.e. clinical criteria). This suggests that the MacCAT-T could reasonably be used both in clinical practice and for assessments of whether or not patients meet the legal criteria for mental incapacity. While the MacCAT-T is considerably longer than the legal criteria for mental incapacity outlined in Irish legislation and similar legislation in other jurisdictions (e.g. England and Wales), it permits a more nuanced exploration of different aspects of mental incapacity, and also possibly helps deepen therapeutic understandings. Although there is need for training to use the MacCAT-T, following the capacity assessments of 215 psychiatry inpatients by the author, its advantages are clear, especially in light of the results which show its close relationship with the legal criteria within the Assisted Decision-Making (Capacity) Act 2015. I therefore recommend the use of the MacCAT-T in clinical
practice once it is used following appropriate training, with an awareness of its strengths and limitations, and with an understanding of its relationship with legal criteria.

6.4.2. Revision of the Mental Health Act to keep in line with the progressive Assisted Decision-Making (Capacity) Act 2015 and CRPD

It is evident that Ireland’s Mental Health Act, 2001 requires revision. As the results of this work demonstrate, mental capacity and psychiatric admission can create some uncertainties regarding rights and ethical issues. These recommendations for change have been discussed at length throughout this thesis, in particular with respect to the ‘voluntary’ patient who lacks capacity but also concerns with respect to a minority of involuntary patients who may have mental capacity for treatment decisions. I encourage the commencement of the Mental Health (Amendment) Act 2018, for the purpose of addressing some of these problems with respect to the voluntary patient admission, capacity and bringing the Mental Health Act 2001 in line with the 2015 Act, with its principles of ‘will and preference’ as opposed to ‘best interests’. In the absence of clear guidance in the approach to ‘best interests’, there is nothing to prevent its paternalistic interpretation.

That said with respect to the extensive recommendations (165 in total) in the report of the Expert Group on the Review of the Mental Health Act 2001 (Department of Health, 2015), it would seem most appropriate that such a revision of mental health legislation would come in the form of a single comprehensive piece of legislation rather than multiple amendments (Reidy and Kelly, 2021). At present we await the commencement of the Mental Health (Amendment) Act 2018, this follows on from amendments in the
Mental Health (Amendment) Act 2015. These amendments are needed in themselves and improve specific areas within the 2001 Act. However, this continued commencement of small pieces of amending legislation is exactly what Reidy and Kelly (2021) see as unwise, with the potential to create problems. My recommendation in line with this, would be to provide a single comprehensive revision ensuring that any changes are consistent with the Assisted Decision-Making (Capacity) Act 2015 in particular when looking at Sections 3, 4 and 57 of the Mental Health Act 2001.

6.4.3. **Keep capacity assessment separate to the involuntary admission criteria**

As this work has confirmed there is a complex relationship between mental incapacity and psychiatry admission status. It is important to ensure that patients who lack mental capacity but are compliant with treatment (22% of voluntary patients in this study) (Curley et al., 2019c)) have their rights protected by way of proposed amendments. By keeping mental capacity assessments separate to involuntary admission criteria it is hoped that this will help ensure that criteria for involuntary admission are not applied discriminatorily to people who lack mental capacity, consistent with the Convention on the Rights of Persons with Disabilities (CRPD).

6.5. **Future Research**

6.5.1. **Expansion of this study to include other potential factors contributing to mental incapacity in Psychiatry Patients.**

In keeping with the ethics approval for the study, the patient information that I gathered included sociodemographic and some clinical factors. Analysis of the results showed an association between mental capacity and voluntary admission status, being employed,
having a primary diagnosis other than schizophrenia or a related disorder, and younger age (Curley et al., 2019a). Other dimensions that have been assessed and linked with mental capacity in other jurisdictions include insight, degree of symptoms and cognition, all of which would add to work of this study. As discussed in Chapter 5, insight has been found to be associated with capacity in psychiatry inpatients (Larkin and Hutton, 2017, Owen et al., 2009b, Cairns et al., 2005a). Information regarding insight in this population in Ireland would add to our understanding of capacity. Standardised tools to measure insight could be used to guide this, for example Spencer et al. (2018) used Positive and Negative Syndrome Scale (PANSS) which includes a measure of insight (PANSS item G12) or the Expanded Schedule for the Assessment of Insight (SAI–E) as used by Owen et al. (2009b) and Cairns et al. (2005a). The SAI-E is a semi-structured interview which is clinically based. It has 3 main dimensions (awareness of illness, treatment adherence and relabelling of symptoms as pathological) (Owen et al., 2009b).

Exploration of the symptoms experienced by those who lack capacity would be a welcome inclusion in future research. The results of this work, which are in keeping with most other studies, show that there is an association between mental incapacity and schizophrenia or related disorders. Therefore, scales to measure these symptoms could be added for example PANNS, Scale for the Assessment of Positive Symptoms (SAPS), Scale for the Assessment of Negative Symptoms (SANS) or Brief Psychiatric Rating Scale (BPRS).
This study did not measure cognitive performance, which is important in the MacCAT-T assessment (Breden and Vollmann, 2004, Mandarelli et al., 2012). Cognitive deficits have been noted in those experiencing mental health difficulties, in particular schizophrenia. There is no single pattern that is specific to patients with this diagnosis however, deficits in executive function, working memory, attention and ability to learn new information have been frequently observed (Palmer and Jeste, 2006, Heaton et al., 1994). A recent systematic review by Parmigiani et al. (2022) found that there was higher risk of impairment in mental capacity for treatment decisions in patients with mild cognitive impairment compared to healthy subjects. Therefore, it stands to reason that those with schizophrenia or related disorders, displaying cognitive deficits would also be at risk of impaired mental capacity. The results of a study by Mandarelli et al. (2012) in acute psychiatric inpatients showed that decision making with respect to informed consent was associated with executive functions as assessed using the complete range of the Wisconsin Card Sorting Tests (WCST). Mandarelli et al. (2012) found that patients who performed worse in MacCAT-T (understanding, appreciation, and expression of a choice) had poor executive function compared to those who performed well on the MacCAT-T. It is important for researchers and clinicians to consider cognitive functioning when seeking informed consent (Parmigiani et al., 2022). It would be advantageous to further assess for potential associations between mental capacity, cognition and related measures such as executive function and concentration that may impact on the person’s ability to retain or process information required for capacity. However as highlighted by the HSE in September 2023 it is essential that the test for capacity under the 2015 Act is the functional test. The use of the Mini Mental State Exam (MMSE) or other assessments of cognition are not appropriate to use as the means of establishing a person’s decision-making capacity (National Office for Human
Rights and Equality Policy, 2023). This is certainly a multi-factorial and complex subject matter. All of these additional measures would serve to provide us with more information about those at greater risk of experiencing mental incapacity in the psychiatry setting. Advocate support, education and resources would be best directed towards these high-risk groups initially, with special emphasis on the provisions within the Assisted Decision-Making (Capacity) Act 2015 to optimise their mental capacity.

6.5.2. **Timing of the capacity assessment**
This research did not look at the stage of admission at which the capacity assessment was carried out. This of course could have an impact on the outcome, for many who lack mental capacity to make treatment decisions, have the potential for improvement in their mental illness and to regain capacity with treatment. This study found a paradoxical situation whereby some voluntary patients lacked capacity while some involuntary inpatients possessed mental capacity. Knowledge regarding the point in time of the admission at which the assessment took place could help our understanding of the impact of this on mental capacity.

6.5.3. **Repeat Capacity Assessments**
This work did not take account of changes in mental capacity over time; this was to establish what proportion of hospital inpatients lack mental capacity at a given time. However, in clinical practice and as per the principles of the Assisted Decision-Making (Capacity) Act 2015, non-urgent treatment decisions may be postponed if there is
potential for the patient to regain mental capacity. Therefore, a study involving repeated assessments of mental capacity over time would be a valuable addition to the field.

Also, comparing the capacity assessments completed by a researcher to that of a member of the treating team of the person could usefully explore any benefit from the rapport and trust a patient may have with a key worker as a factor in their decision-making ability.

6.6. Education regarding the findings of this work

Mental health professionals should be made aware of the findings of this study. Of course, with the Assisted Decision-Making (Capacity) Act 2015 commencement and campaigns from the DSS, capacity is very topical at present. However, it is important for both professionals and other stakeholders to be aware that not only is capacity to be presumed but even in the sickest cohort of those who suffer with mental illness, there is still a high rate of capacity to make treatment decisions and with the decision-making supports also available to psychiatry inpatients, there is the potential to improve this even more.
References:

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Appendices
Appendix 1: Ethics Approval- Tallaght University Hospital/St James’s Hospital

Joint Research Ethics Committee

3rd October 2016

Re: Mental Capacity for Medical Treatment Decisions in Hospital Inpatients in Tallaght Hospital

REC Reference: 2016-10 List 39 (1)

(please quote REC reference on all correspondence)

Dear Prof. Kelly,

Thank you for your recent correspondence in which you responded to the conditions as requested by SJH/AMNCH Research Ethics Committee.

The Chairman of the Committee has reviewed this correspondence, is satisfied with the response and advises that full ethical approval is in place for this study.

The following documents were reviewed and approved:

- A revision letter
- Revised ethics application form
- Revised patient information leaflet
- Revised relative information leaflet
- Application Checklist
- Patient Consent Form
- Relative Assent Form
- CV of Principal Investigator
- Questionnaire ('Capacity Macc-T Tool')
- Insurance Letters (2)
- Capacity Study Protocol
- Capacity Letter

Yours sincerely,

[Signature]

Claire Hartin
Secretary
SJH/AMNCH Research Ethics Committee

The SJH/AMNCH Joint Research and Ethics Committee operates in compliance with and is constituted in accordance with the European Commission's Clinical Trials on Medicinal Products for Human Use Regulations 2004 & ICH GCP guidelines.
Appendix 2: Ethics Approval: RCSI- Connolly Hospital Blanchardstown

Royal College of Surgeons in Ireland
The Research Ethics Committee
121 St. Stephens Green, Dublin 2, Ireland.
Tel: +353 1 4002205 Email: recadmin@rcsi.ie

Dr David Smith, Acting Chair
Dr Shonead Healy, Convener
28th September 2017

Professor Brendan Kelly
Department of Psychiatry
Tallaght Hospital
Dublin 24

<table>
<thead>
<tr>
<th>Ethics Reference No:</th>
<th>REC14/21 (Accepted approval from SJH/AMNCH)</th>
</tr>
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<tbody>
<tr>
<td>Project Title:</td>
<td>Mental Capacity for Medical Treatment Decisions in Hospital Inpatients</td>
</tr>
<tr>
<td>Researchers Name (PI):</td>
<td>Professor Brendan Kelly (TCD Department of Psychiatry)</td>
</tr>
<tr>
<td>Researchers Name (lead applicant):</td>
<td>Dr Acolfe Curley (TCD &amp; Louth Meath Mental Health Service)</td>
</tr>
<tr>
<td>Other individuals Involved:</td>
<td>Dr Roisin Plunkett (East Blanchardstown MHS), Dr Aileen Moran (North Dublin MHS, Connolly Hospital, Blanchardstown), Dr Catherine McDonagh (Louth/ Meath Mental Health Services), Dr Sean Fleming (Midland Regional Hospital)</td>
</tr>
</tbody>
</table>

Dear Prof. Kelly,

Thank you for your Research Ethics Committee (REC) application. The RCSI HREC accepts the ethical approval granted by Tallaght Hospital (SJH/AMNCH) for the research study (details above) submitted by Prof. Kelly.

This letter provides approval for data collection for the time requested in your application and for an additional 6 months. This is to allow for any unexpected delays in progressing with data collection. Therefore, this research ethics approval will expire on 01/04/2019.

Where data collection is necessary beyond this point, approval for an extension must be sought from the Research Ethics Committee.

This ethical approval is given on the understanding that:

- All personnel listed in the approved application have read, understand and are thoroughly familiar with all aspects of the study.
- Any significant change which occurs in connection with this study and/or which may alter its ethical consideration must be reported immediately to the REC, and an ethical amendment submitted where appropriate.
- A final report will be submitted to the REC upon completion of the project.

We wish you all the best with your research.

Yours sincerely,

[Signature]
PP Dr Shonead Healy (Convener)
Dr David Smith (Acting Chair)
Appendix 3: Ethics Approval HSE North East -Drogheda Department of Psychiatry and St. Brigid’s Ardee

Ref: Research Study Proposal:
“Mental Capacity for Medical Treatment Decisions in Hospital Inpatients in the Drogheda Department of Psychiatry, Tallaght Hospital, Dublin and Midland Regional Hospital”

Dear Dr. Curley,

I refer to your email correspondence of the 5/7/17 in response to issues raised by the HSE North East Area Research Ethics Committee (REC) in connection with the above study. I wish to advise that I have had an opportunity to review same.

I can confirm that you have met all the conditions of the Committee and you may commence the above study.

This will be formally noted at the next REC meeting.

Yours sincerely,

[Handwritten Signature]

Dr. Brendan MacMahon
Chair, HSE North East Area
Research Ethics Committee

Copied to: Gar McCormack, Business Manager, St. Brigids Hospital, Ardee, Co. Louth
Amir Niazi, ECD, St. Brigids Hospital, Ardee, Co. Louth
Appendix 4: Hospital Participant Information Leaflet

HOSPITAL PARTICIPANT INFORMATION LEAFLET

Mental Capacity for Medical Treatment Decisions in Hospital Inpatients
Professor Brendan Kelly (Tallaght Hospital and Trinity College Dublin)

You are being invited to participate in a research study. Thank you for taking time to read this.

WHAT IS THE PURPOSE OF THE STUDY?
This study examines how well patients in hospital understand the treatment choices they face and how well they can make decisions. We know that many people who are sick in hospital find information difficult to understand and remember, and find it difficult to make decisions about treatment.

Often, people rely on family members and hospital staff members to help with these decisions. This study will help plan supports for people to make good decisions about treatment in hospital in the future.

WHY HAVE I BEEN CHOSEN TO PARTAKE IN THIS STUDY?
You have been invited to participate in this study because you are an inpatient in Tallaght Hospital, Dublin and you are aged 18 years or over.

How will the study be carried out?

WHAT WILL HAPPEN IF I VOLUNTEER TO PARTICIPATE?
This study involves a 20-minute discussion with a researcher to figure out the extent of your ability to understand your treatment choices in hospital and to make a decision. This is an entirely anonymous study.

Beforehand, the researcher will look at your clinical file in order to understand why you are in hospital and record this information, along with your gender and the year you were born. Your 20-minute discussion with the researcher will explore your understanding of why you are in hospital, what treatment options are available to you, and your understanding of the pros and cons of these treatment options. In the event that clinically relevant information comes to light, this information will be conveyed back to your treating team.

The researcher will not provide additional information about your treatment, but will discuss your understanding of the treatment options for you.

You can stop the discussion at any point or ask for it to be broken into shorter periods, if you wish.

An tÎde Scríbhneoir: Brendan Kelly
MB BCh BAO, MA MD MA, MD PRO DGM PhD, FRCPsych FRCPI
Department of Psychiatry
Trinity Centre for Health Sciences
Tallaght Hospital
Dublin 24
Ireland

Professor Brendan Kelly
MB BCh BAO, MA MD MA, MD PRO DGM PhD, FRCPsych FRCPI
Professor of Psychiatry
Department of Psychiatry
Trinity Centre for Health Sciences
Tallaght Hospital
Dublin 24
Ireland

Collette Angellov
Secretary
Department of Psychiatry
Trinity Centre for Health Sciences
Tallaght Hospital
Dublin 24
Ireland
The researcher will keep an anonymous record of why you are in hospital, what your treatment options are, your understanding of the treatment options, and how you weigh the options up. The researcher will process this information afterwards and perform an analysis of all the information collected in the study in order to write and publish research papers and reports.

No identifying material will be used in any reports of this study. All data will be entirely anonymous and will be destroyed after analysis is complete. Confidentially will be maintained at all times.

ARE THERE ANY RISKS INVOLVED IN PARTICIPATING?
There are minimal risks involved in this study. If you become upset or unwell during the discussion, the discussion will cease and care will be provided.

ARE THERE ANY BENEFITS INVOLVED IN PARTICIPATING?
This study will not affect your care in any way. This study examines how well patients understand the treatment choices they face and how well they can make decisions. The results will help plan better supports for people to make good decisions in hospital in the future.

WHAT HAPPENS IF I DO NOT AGREE TO PARTICIPATE?
If you do not wish to participate, there are no consequences whatsoever for you. Your treatment will not be affected in any way.

WILL MY PARTICIPATION OR WITHDRAWAL HAVE ANY IMPACT ON MY ROUTINE CARE? No.

WILL I BE TOLD THE OUTCOME OF THE STUDY? You will not be told your individual outcome. An anonymous record of your results is processed with those of other participants (approximately 200). However once data is analysed you can be informed of the collective result of the study and read results in published papers. Please feel free to contact at the details provided below if you would like to be updated on results at any time.

Anonymised data will be presented at national and international conferences and published in medical journals.

Part 2: DATA PROTECTION
WHAT INFORMATION ABOUT ME (PERSONAL DATA) WILL BE USED AS PART OF THIS STUDY? WILL MY MEDICAL RECORDS BE ACCESSED? We will record your gender, age, employment status, marital status, ethnicity (Irish or non-Irish), your clinical diagnosis and the medication/treatment you are receiving. We will get this information from your medical records.
We collect this data to better understand factors that may affect mental capacity to make treatment decisions. This data will be anonymised.

WHAT WILL HAPPEN TO MY PERSONAL DATA?
An anonymous record of your assessment is transferred to a password protected research computer for analysis. A copy of your consent form will be kept in a locked drawer until the analysis is complete (5 years).

No identifying material will be used in any reports of this study and no identifying material (personal data collected) will leave the country. Anonymous results will be presented at conferences nationally and internationally.
WHO WILL ACCESS AND USE MY PERSONAL DATA AS PART OF THIS STUDY? Only Professor Brendan Kelly and Dr. Aoife Curley will have access to your personal data.

WILL MY PARTICIPATION BE CONFIDENTIAL? Yes.

HOW WILL MY DATA BE KEPT SAFE?
Your privacy is important to us. We take many steps to make sure that we protect your confidentiality and keep your data safe. Here are some examples of how we do this:

- All data recorded will be entirely anonymous and will be destroyed after analysis is complete.
- Only anonymous presentations and publication of results in relation to the study will be made.
- The doctors carrying out the research are bound by a professional code of confidentiality (secrecy) that would mean disciplinary action for any unnecessary disclosure or allowing unauthorised access to the personal data.
- Training in data protection law and practice has been provided to those individuals involved in carrying out the research.

WHAT IS THE LAWFUL BASIS TO USE MY PERSONAL DATA?
By law, we can use your personal information for scientific research (in the public interest). We need your explicit consent to use your data. This is a requirement of the Irish Health Research Regulations. This study falls under article 6 of GDPR whereby your consent is required to process your personal data.

WHAT ARE MY RIGHTS?
You are entitled to:

- The right to access to your data and receive a copy of it
- The right to restrict or object to processing of your data
- The right to object to any further processing of the information we hold about you (except where it is de-identified)
- The right to have inaccurate information about you corrected or deleted
- The right to request deletion of your data

By law you can exercise the following rights in relation to your personal data, unless the request would make it impossible or very difficult to conduct the research. You can exercise these rights by contacting your study Doctor (details below) or the Trinity College Data Protection Officer, Secretary's Office, Trinity College Dublin, Dublin 2, Ireland. Email: dataprotection@tcd.ie.

PART 3 – COSTS, FUNDING & APPROVAL
WILL IT COST ME ANYTHING IF I AGREE TO TAKE PART? No

INDEMNITY Your doctors are insured by the State Claims Insurance Service and the research is covered by Trinity College Dublin insurance.

WHO IS ORGANISING AND FUNDING THIS RESEARCH?
This research is organised and funded by Trinity College Dublin in collaboration with Tallaght Hospital. This is part of an unfunded PhD study. The researcher is not paid to recruit
to the study. No grants have been received. The study results will not be used for commercial purposes.

**WAS THIS STUDY REVIEWED BY AN ETHICS COMMITTEE?** Yes. This study was approved by the Tallaght/St. James’ Hospital Research Ethics Committee in October 2016.

**IS THERE ANY PAYMENT FOR TAKING PART?**
No, we are not paying patients to take part in the study.

**PART 4 – FUTURE RESEARCH**

**WILL I BE CONTACTED AGAIN?** No

**WILL MY PERSONAL DATA BE USED IN FUTURE STUDIES? NO**

**WHAT HAPPENS IF I WISH TO MAKE A COMPLAINT?**
If you have any concerns or questions, you can contact:

**Contact Details** Professor Brendan Kelly or Dr. Aoife Curley, Trinity Centre for Health Sciences, Tallaght Hospital, Dublin 24. Telephone: 01 896 3799.  

**Data Protection Officer. TUH details to be confirmed**

Under GDPR, if you are not satisfied with how your data is being processed, you have the right to lodge a complaint with the Office of the Data Protection Commissioner, 21 Fitzwilliam Square South, Dublin 2, Ireland. Website: [www.dataprotection.ie](http://www.dataprotection.ie)
Appendix 5: Relative Information Leaflet

Trinity College Dublin
Coláiste na Tríonóide, Balle Átha Cliath
The University of Dublin

1st June 2017, Version 1

RELATIVE INFORMATION LEAFLET

Mental Capacity for Medical Treatment Decisions
Professor Brendan Kelly (Tallaght Hospital and Trinity College Dublin)

Your relative is being invited to participate in a research study. Thank you for taking time to read this.

WHAT IS THE PURPOSE OF THE STUDY?
This study examines how well patients understand the treatment choices they face and how well they can make decisions. We know that many people in hospital find information difficult to understand and remember and find it difficult to make decisions about treatment. Often, people rely on family members and medical staff to help with these decisions. This study will help plan supports for people to make good decisions about their medical treatment in the future.

WHY HAS MY RELATIVE BEEN CHOOSEN TO PARTAKE IN THIS STUDY?
Your relative has been invited to participate in this study because he or she is an inpatient in Tallaght Hospital and are aged 18 years or over.

WHAT WILL HAPPEN IF MY RELATIVE IS INCLUDED IN THIS RESEARCH STUDY?
This study involves a 20-minute discussion with a researcher to figure out the extent of your relative’s ability to understand his or her treatment choices and to make a decision. This is an entirely anonymous study.

Beforehand, the researcher will look at your relative’s clinical file in order to understand why your relative is in hospital and record this information regarding diagnosis and treatment, along with your relative’s gender and year of birth. Your relative’s 20-minute discussion with the researcher will explore your relative’s understanding of why he or she is in hospital, what treatment options are available, and your relative’s understanding of the pros and cons of these treatment options.

The researcher will not provide additional information about your relative’s treatment, but will discuss your relative’s understanding of the treatment options.

Your relative can stop the discussion at any point or ask for it to be broken into shorter periods, if he or she wishes.

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Assistant Professor
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Ireland

Colette Angier
Secretary
Department of Psychiatry
T +353 086 896 3179
The researcher will keep an anonymous record of why your relative is in hospital, what the treatment options are, your relative’s understanding of the treatment options, and how your relative weighs the options up. The researcher will process this information afterwards and perform an analysis of all the information collected in the study in order to write and publish research papers and reports. All data will be entirely anonymous and will be destroyed after analysis is complete. Confidentially will be maintained at all times.

**ARE THERE ANY RISKS INVOLVED IN MY RELATIVE’S PARTICIPATION?**
There are minimal risks involved in this study. If your relative becomes upset or unwell during the discussion, the discussion will cease and care will be provided.

**ARE THERE ANY BENEFITS FROM MY RELATIVE’S PARTICIPATION?**
This study will not affect your relative’s care in any way. This study examines how well patients in hospital understand the treatment choices they face and how well they can make decisions. The results will help plan better supports for people to make good decisions in hospital in the future.

**WHAT HAPPENS IF I DO NOT AGREE TO MY RELATIVE’S PARTICIPATION?**
If your relative is not included in this study, his or her treatment will not be affected in any way.

**WILL MY PARTICIPATION OR WITHDRAWAL HAVE ANY IMPACT ON THEIR ROUTINE CARE?** No.

**WILL I BE TOLD THE OUTCOME OF THE STUDY?** You will not be told your relative’s individual outcome. An anonymous record of results is processed with those of other participants (approximately 200). However, once data is analysed you can be informed of the collective result of the study and read results in published papers. Please feel free to contact at the details provided below if you would like to be updated on results at any time. Anonymised data will be presented at national and international conferences and published in medical journals.

**Part 2: DATA PROTECTION**
**WHAT INFORMATION ABOUT MY RELATIVE (PERSONAL DATA) WILL BE USED AS PART OF THIS STUDY? WILL HIS/HER MEDICAL RECORDS BE ACCESSED?** We will record your relative’s gender, age, employment status, marital status, ethnicity (Irish or non-Irish), clinical diagnosis and the medication/treatment they are receiving. We will get this information from their medical records. We collect this data to better understand factors that may affect mental capacity to make treatment decisions. This data will be anonymised.

**WHAT WILL HAPPEN TO MY RELATIVE’S PERSONAL DATA?**
An anonymous record of the assessment is transferred to a password protected research computer for analysis. A copy of your consent form will be kept in a locked drawer until the analysis is complete (5 years). No identifying material will be used in any reports of this study and no identifying material (personal data collected) will leave the country. Anonymous results will be presented at conferences nationally and internationally.
WHO WILL ACCESS AND USE THE PERSONAL DATA AS PART OF THIS STUDY? Only Professor Brendan Kelly and Dr. Aoife Curley will have access to your personal data.

WILL MY RELATIVE’S PARTICIPATION BE CONFIDENTIAL? Yes.

HOW WILL MY RELATIVE’S DATA BE KEPT SAFE?
Your relative’s privacy is important to us. We take many steps to make sure that we protect their confidentiality and keep the data safe. Here are some examples of how we do this:

- All data recorded will be entirely anonymous and will be destroyed after analysis is complete.
- Only anonymous presentations and publication of results in relation to the study will be made.
- The doctors carrying out the research are bound by a professional code of confidentiality (secrecy) that would mean disciplinary action for any unnecessary disclosure or allowing unauthorised access to the personal data.
- Training in data protection law and practice has been provided to those individuals involved in carrying out the research.

WHAT IS THE LAWFUL BASIS TO USE MY RELATIVE’S PERSONAL DATA?
By law, we can use your relative’s personal information for scientific research (in the public interest). We need your explicit consent to use the data. This is a requirement of the Irish Health Research Regulations. This study falls under article 6 of GDPR whereby consent is required to process your relative’s personal data.

WHAT ARE MY RELATIVES RIGHTS?
You relative is entitled to:
- The right to access to their data and receive a copy of it (prior to being anonymised)
- The right to restrict or object to processing of their data
- The right to object to any further processing of the information we hold about them (except where it is de-identified)
- The right to have inaccurate information about them corrected or deleted
- The right to request deletion of their data

By law they can exercise the following rights in relation to their personal data, unless the request would make it impossible or very difficult to conduct the research. You can exercise these rights by contacting your study Doctor (details below) or the Trinity College Data Protection Officer, Secretary’s Office, Trinity College Dublin, Dublin 2, Ireland. Email: dataprotection@tcd.ie.

PART 3 – COSTS, FUNDING & APPROVAL
WILL IT COST ME ANYTHING IF I AGREE TO TAKE PART? No

IS THERE ANY PAYMENT FOR TAKING PART?
No, we are not paying patients to take part in the study.

WILL MY RELATIVE’S PARTICIPATION BE CONFIDENTIAL?
Yes.
INSURANCE Your relative’s doctors are adequately insured by the clinical indemnity scheme and the research is covered by Trinity College Dublin insurance.

WHO IS ORGANISING AND FUNDING THIS RESEARCH?
This research is organised and funded by Trinity College Dublin in collaboration with the Tallaght Hospital. This is part of an unfunded PKD study. The researcher is not paid to recruit to the study. No grants have been received. The study results will not be used for commercial purposes.

CONFIDENTIALITY
No identifying material will be used in any reports of this study.

WAS THIS STUDY REVIEWED BY AN ETHICS COMMITTEE?
Yes. This study was approved by the Tallaght/ St. James’ Hospital Research Ethics Committee in October 2016.

PART 4 – FUTURE RESEARCH
WILL I BE CONTACTED AGAIN? No.

WILL MY RELATIVE’S PERSONAL DATA BE USED IN FUTURE STUDIES? No.

WHAT HAPPENS IF I WISH TO MAKE A COMPLAINT?

CONTACT DETAILS
Professor Brendan Kelly/ Dr. Aoife Curley
Trinity Centre for Health Sciences, Tallaght Hospital, Dublin 24.
Telephone: 01 896 3799.

Data Protection Officer TUII details to be confirmed

Under GDPR, if you are not satisfied with how your data is being processed, you have the right to lodge a complaint with the Office of the Data Protection Commission, 21 Fitzwilliam Square South, Dublin 2, Ireland. Website: www.dataprotection.ie
Appendix 6: Patient Consent Form

PATIENT CONSENT FORM

Mental Capacity for Medical Treatment Decisions

PLEASE TICK YOUR RESPONSE IN THE APPROPRIATE BOX
To be completed by the PARTICIPANT

<table>
<thead>
<tr>
<th>Statement</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have read and understood the information leaflet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have had the opportunity to discuss the study, ask questions about the study and I have received satisfactory answers to all my questions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have received enough information about this study.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understand that I am free to withdraw from the study at any time without giving a reason and this will not affect my future medical care.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I agree to allow the researchers use my information (personal data) as part of this study as outlined in the information leaflet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I agree to allow the researchers access my medical records as part of this study.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I consent to take part in this research study having been fully informed of the risks, benefits and purpose of the study.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I give my explicit consent to have my data processed as part of this research study.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understand that I am free to withdraw from the study at any time without giving a reason and without this affecting my future medical care.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Participant’s Name (Block Capitals):

Participant’s Signature:

Date:

---

An Tólamh Brendan Kelly
MB BCh BAO, MA MSc MA, MD PhD DGeas MO, FRCPsych FFCHI
Coláiste Iognaidh Chorcaí
Professor Brendan Kelly
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---

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e: brendan.kelly@tcd.ie
w: www.trinitycollege.ie/psychiatry
To be completed by the **RESEARCHER**.

<table>
<thead>
<tr>
<th>I have fully explained the purpose and nature (including benefits and risks) of this study to the participant in a way that he/she could understand. I have invited him/her to ask questions on any aspect of the study.</th>
<th>YES ☐</th>
<th>NO ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>I confirm that I have given a copy of the information leaflet and consent form to the participant.</td>
<td>YES ☐</td>
<td>NO ☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Researcher’s Name (Block Capitals):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher’s Title &amp; Qualifications:</td>
<td></td>
</tr>
<tr>
<td>Researcher’s Signature:</td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 7: Relative Assent Form

RELATIVE ASSENT FORM

Mental Capacity for Medical Treatment Decisions

PLEASE TICK YOUR RESPONSE IN THE APPROPRIATE BOX

| I have read and understood the relative information leaflet. | YES □ | NO □ |
| I have had the opportunity to discuss the study, ask questions about the study and I have received satisfactory answers to all my questions. | YES □ | NO □ |
| I have received enough information about this study. | YES □ | NO □ |
| I understand that I can withdraw my relative from the study at any time without giving a reason and this will not affect their future medical care. | YES □ | NO □ |
| I agree to allow the researchers use my relative’s information (personal data) as part of this study as outlined in the information leaflet. | YES □ | NO □ |
| I agree to allow the researchers access my relative’s medical records as part of this study. | YES □ | NO □ |
| I consent to for my relative to take part in this research study having been fully informed of the risks, benefits and purpose of the study | YES □ | NO □ |
| I give consent to have my relative’s data processed as part of this research study | YES □ | NO □ |
| I understand that I am free to withdraw my relative from the study at any time without giving a reason and without this affecting their future medical care | YES □ | NO □ |

Participant's Name (Block Capitals):

Participant's Signature:

Date:

An tIomácht Brendan Kelly
MB Bch BAO, MA MSc MA, MD PhD DGov PhD, FRCPsych FRCP
Éireannais Sláinte
Roinn na Láirigheachta
Insititut Éasaíochta na hÉireanní Sláinte
diáleachtála Thriúnta.
Baile Átha Cliath 14
Eire

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T: +353 (0)1 856 3709
brendan.kelly@tcd.ie
angilew@fcd.ie
www.medicine.tcd.ie/psychiatry
To be completed by the **RESEARCHER**:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have fully explained the purpose and nature (including benefits and risks) of this study to the participants relative in a way that he/she could understand. I have invited him/her to ask questions on any aspect of the study.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I confirm that I have given a copy of the relative information leaflet and consent form to the participants relative.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher’s Name (Block Capitals):</td>
</tr>
<tr>
<td>Researcher’s Title &amp; Qualifications:</td>
</tr>
<tr>
<td>Researcher’s Signature:</td>
</tr>
<tr>
<td>Date:</td>
</tr>
</tbody>
</table>
Appendix 8: MacArthur Competence Assessment Tool for Treatment (MacCAT-T) - guidance and record form

I. PREPARATION

Prior to meeting with the patient, the clinician prepares the information that will be disclosed to the patient. When the clinician is the patient’s doctor, the clinician will already be well informed about the patient’s disorder and treatment needs. If the clinician who is performing the assessment is not the treating clinician, the information necessary for preparing the disclosure and assessment process must be obtained from the treating clinician and/or the patient’s chart.

1. **Diagnosis of Disorder.** Determine the patient’s diagnosis, and write its name in Disclosure space #1 on page 1 of the Record Form.

2. **Features of Disorder.** Select three features of the disorder that are most important for the patient to understand in order to make an informed decision about treatments. Write descriptions of these features in Disclosure spaces #2-4 on page 1 of the Record Form. “Features” of a disorder that are appropriate to disclose will vary considerably across disorders and circumstances, and will depend in part on whether the symptoms of the disorder are primarily biological or psychosocial in nature. Possibilities include descriptions of critical biological mechanisms, causes, signs, and symptoms.

3. **Course of Disorder.** Determine the probable course of the disorder if no treatment were to be provided. Write a description of the untreated consequences of the disorder in Disclosure space #5 on page 1 of the Record Form.

4. **Recommended Treatment.** Determine the treatment that, in the judgment of the treating clinician, is in the best medical interest of the patient, and write it in Disclosure space #1 on page 2 of the Record Form.
5. **Features of Recommended Treatment.** Select two or three features of the treatment that are important for the patient to understand in order to make an informed decision, and write the descriptions in Disclosure spaces #2-4 on page 2 of the Record Form. Features of a treatment disclosed at this point should not include benefits or risks. The focus here is on the treatment process — for example, what preparation is required, the medical procedure itself, follow-up procedures, and duration of treatment.

6. **Benefits/Risks of Recommended Treatment.** Determine two of the most important expected benefits of the treatment, as well as the best possible estimate of their likelihood to occur. Write the descriptions, including their likelihood, in the Disclosure spaces #1-2 on page 3 of the Record Form. Then determine the most important expected risks, discomforts, and/or side-effects of the treatment, as well as the best possible estimate of their likelihood to occur. Write the descriptions, including their likelihood, in Disclosure spaces #3-4 on page 3 of the Record Form.

7. **Alternative Treatments.** (OPTIONAL) Repeat Steps 4 to 6 for any alternative treatments to be disclosed to the patient, recording the information on the Alternative Treatments (AT) Form.

**NOTE:** Step 7 is not essential for performing an assessment of the patient’s decision-making capacities; the patient’s performance related to the treatment chosen in Step 4 may be representative of the patient’s functioning in making treatment decisions in general. Step 7 may be useful, however, in cases in which documentation of patients’ understanding of all options is desirable — for example, in complex cases that may require judicial (court) review.
II. INTERVIEW

PROCEDURE

The MacCAT-T interview procedure combines the disclosure of informed consent information with assessment of patients' abilities to comprehend the information and make decisions about their treatment. The interview should proceed in the sequence described on the next page. Some flexibility is allowable, however, to meet the needs of specific patients, as long as all parts of the interview procedure are completed by the end of the interview.

STYLE

Throughout the interview, it is important for clinicians to adapt their disclosure and questioning (vocabulary, sentence lengths, pace) to the verbal abilities, level of intelligence, and emotional needs of the patient.

RECORDING

The patient's responses to inquiries throughout the interview should be recorded in the spaces on the Record Form marked "Response." Ratings of the patient's Understanding, Appreciation, Reasoning, and Choice will be made later on the basis of the clinician's notes in these spaces. The Record Form also provides brief prompts to the clinician that are related to the more lengthy description of the interview on the following pages.
Introduction

Describe to the patient the purpose of the present interview, framing it as a consultation and discussion. Indicate that you will describe what you believe is the patient's medical problem and possible courses of treatment, and that you will want to discuss the patient's understanding of the information. Encourage the patient to ask questions as the interview proceeds.

1. **Disclose.** Using the information prepared in the Disclosure spaces, describe the disorder and its elements. Ask if there are any questions; if there are, answer them.

2. **Inquire.** Tell the patient that you wish to make sure that he or she has understood what you have described. Ask the patient to describe to you his or her understanding of the information: what the disorder is called, what is wrong, what will happen if it is not treated, and so forth. Write down responses in the appropriate space on page 1 of the Record Form.

3. **Probe.** When a patient's description omits information for any of the important elements, use a prompt to make inquiry about what he or she recalls and understands concerning that portion of the disclosure. For example, if the patient does not describe the probable untreated course of the disorder, say "Tell me what will happen if we don't treat the problem - if we just let it go." Write responses on the Record Form.

4. **Re-Disclose and Re-Inquire.** For any of the important elements that the patient (a) has not described after Inquire and Probe or (b) has described incorrectly, explain those elements to the patient again, and again inquire concerning the patient's comprehension of the information. Write responses on the Record Form.

**NOTE:** During the inquiry, some patients might respond, not by describing the disorder, but by describing their beliefs or disbeliefs regarding the information that was disclosed as it pertains to their own situation (e.g., "Why are you saying I have angina - I'm sure it's just heartburn"). In such cases, the clinician can move ahead to explore the patient's appreciation (described in the next section). However, it is very important to return eventually to the Understanding-Disorder discussion, in order to assure that the patient does comprehend the disclosure, despite perhaps believing that it is not applicable to his or her own situation. Patients' beliefs, in contrast to their understanding of what they have been told, are the focus of the next section of the interview.
MacCAT-T RECORD FORM

Patient:   Clinician:  Time:   Unit:  
Date:   

UNDERSTANDING-DISORDER

**Disclosure:**  "Now please explain in your own words what I've said about your condition."
**Probe (if necessary):**  Re-Disclose and Re-Inquire (if necessary).

<table>
<thead>
<tr>
<th>Disclosure</th>
<th>Patient Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Diagnosis</td>
<td>Rating</td>
</tr>
<tr>
<td>#2 Feature of Disorder</td>
<td>Rating</td>
</tr>
<tr>
<td>#3 Feature of Disorder</td>
<td>Rating</td>
</tr>
<tr>
<td>#4 Feature of Disorder</td>
<td>Rating</td>
</tr>
<tr>
<td>#5 Course of Disorder</td>
<td>Rating</td>
</tr>
</tbody>
</table>

Understanding-Disorder (Sum)  

Other  

MacArthur Competence Assessment Tool For Treatment (MacCAT-T);  
Copyright © 1998 Professional Resource Exchange, Inc.  
Thomas G. Inouye and Paul S. Appelbaum / University of Massachusetts Medical School  
Developed with support from the John D. and Catherine T. MacArthur Foundation
APPRECIATION-DISORDER

_Inquire:_ “Now that is what we think is the problem in your case. If you have any reason to doubt that, I'd like you to tell me so. What do you think?”

☐ Agrees  ☐ Disagrees  ☐ Ambivalent

_Probe:_ If patient disagrees or is ambivalent, description of disagreement and patient’s explanation.

Explanation

Appreciation-Disorder

UNDERSTANDING-TREATMENT

_Disclose:_ “Now please explain in your own words what I’ve said about this treatment.”

_Probe (if necessary):_ Re-Disclose and Re-Inquire (if necessary).

<table>
<thead>
<tr>
<th>Disclosure</th>
<th>Patient Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Name of Treatment</td>
<td>Rating</td>
</tr>
<tr>
<td>#2 Feature of Treatment</td>
<td>Rating</td>
</tr>
<tr>
<td>#3 Feature of Treatment</td>
<td>Rating</td>
</tr>
<tr>
<td>#4 Feature of Treatment</td>
<td>Rating</td>
</tr>
</tbody>
</table>

Understanding-Treatment (Sum)

Other
**UNDERSTANDING-BENEFITS/RISKS**

*Disclosure:*  
"Now please explain in your own words what I've said about benefits and risks of this treatment."

*Probe (if necessary):* Re-Disclose and Re-Inquire (if necessary).

<table>
<thead>
<tr>
<th>Disclosure</th>
<th>Patient Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Benefit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating</td>
</tr>
<tr>
<td>#2 Benefit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating</td>
</tr>
<tr>
<td>#3 Risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating</td>
</tr>
<tr>
<td>#4 Risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rating</td>
</tr>
</tbody>
</table>

Understanding-Benefits/Risks (Sum)  

Other:  

<p>| | |</p>
<table>
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</thead>
</table>
APPRECIATION-TREATMENT

Inquire: “You might or might not decide that this is the treatment you want - we'll talk about it later. But do you think it's possible that this treatment might be of some benefit to you?”

☐ Agrees ☐ Disagrees ☐ Ambivalent

Probe: “So you feel that it is/isn't possible for that treatment to be of some help for your condition. Can you explain that to me? What makes it seem that the treatment would/wouldn't be of possible benefit to you?”

ALTERNATIVE TREATMENTS

See Alternative Treatment (AT) Forms, one for each Alternative Treatment.

FIRST CHOICE AND REASONING

Choice: “Now let’s review the choices that you have. First … second … and so on (name each treatment option reviewed earlier, including no-treatment option). Which of these seems best for you? Which do you think you are most likely to want?”

Choice

Inquire: “You think that (state patient’s choice) might be best. Tell me what it is that makes that seem better than the others.”

Probe: Discuss explanation to explore reasoning process.

Explanation

Consequential ☐ Comparative ☐
GENERATE CONSEQUENCES

Inquire-1: "I told you about some of the possible benefits and risks or discomforts of (name the patient’s preferred treatment option). What are some ways that these might influence your everyday activities at home or at work?"

Consequences-1

Inquire-2: "Now let’s consider (name of any other treatment or the no-treatment option). What are some ways that the outcomes of that option might influence your everyday activities at home or at work?"

Consequences-2

Generate Consequences (Sum)

FINAL CHOICE

Inquire: "When we started this discussion you favored (insert ‘First Choice’ from earlier inquiry, or note that the patient seemed to be having difficulty deciding). What do you think now that we have discussed everything? Which do you want to do?"

Choice

Express Choice

LOGICAL CONSISTENCY OF CHOICE

Examiner’s Explanation

Logical Consistency
<table>
<thead>
<tr>
<th></th>
<th>Sum of Ratings</th>
<th>Number of Items</th>
<th>Subtotal Rating</th>
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</thead>
<tbody>
<tr>
<td><strong>UNDERSTANDING</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Disorder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits/Risks</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Understanding</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPRECIATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disorder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Appreciation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>REASONING</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Consequential</td>
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<tr>
<td>Comparative</td>
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<td></td>
<td></td>
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<tr>
<td>Generate Consequences</td>
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<tr>
<td>Logical Consistency</td>
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<tr>
<td><strong>Reasoning</strong></td>
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<tr>
<td><strong>Expressing A Choice</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OPTIONAL:** Summary scores for Understanding of each alternative treatment

Alternative 1:                Alternative 3:
Alternative 2:                Alternative 4:
Appendix 9- Assisted Decision Making (Capacity) Act 2015 Assessment Form

Assisted Decision-Making (Capacity) Act 2015 Criteria

(a) Understand the information relation to the decision

(b) Retain the information long enough to make a voluntary choice

(c) Use or weigh that information

(d) To communicate his or her decision
Appendix 10: CASP checklist for diagnostic test study

CASP Checklist: 12 questions to help you make sense of a Diagnostic Test study

How to use this appraisal tool: Three broad issues need to be considered when appraising a trial:

- Are the results of the study valid? (Section A)
- What are the results? (Section B)
- Will the results help locally? (Section C)

The 12 questions on the following pages are designed to help you think about these issues systematically. The first three questions are screening questions and can be answered quickly. If the answer to both is “yes”, it is worth proceeding with the remaining questions. There is some degree of overlap between the questions, you are asked to record a “yes”, “no” or “can’t tell” to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

About: These checklists were designed to be used as educational pedagogic tools, as part of a workshop setting, therefore we do not suggest a scoring system. The core CASP checklists (randomised controlled trial & systematic review) were based on JAMA ‘Users’ guides to the medical literature 1994 (adapted from Guyatt GH, Sackett DL, and Cook DJ), and piloted with health care practitioners.

For each new checklist, a group of experts were assembled to develop and pilot the checklist and the workshop format with which it would be used. Over the years overall adjustments have been made to the format, but a recent survey of checklist users reiterated that the basic format continues to be useful and appropriate.

Referencing: we recommend using the Harvard style citation, i.e.: Critical Appraisal Skills Programme (2018). CASP (insert name of checklist i.e. Diagnostic Test Study) Checklist. [online] Available at: URL. Accessed: Date Accessed.

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### Section A: Are the results of the trial valid?

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>Can't Tell</th>
<th>No</th>
<th>HINT:</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Was there a clear question for the study to address?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Was there a comparison with an appropriate reference standard?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is it worth continuing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Did all patients get the diagnostic test and reference standard?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**HINT:**
- A question should include information about:
  - the population
  - the test
  - the setting
  - the outcomes

**HINT:** Is this reference test(s) the best available indicator in the circumstances?

**HINT:** Consider:
- were both received regardless of the results of the test of interest
- Check the 2x2 table (verification bias).
4. Could the results of the test have been influenced by the results of the reference standard?

   Yes  
   Can’t Tell  
   No

   HINT: Consider
   • was there blinding
   • were the tests performed independently
   • review bias

   Comments:

5. Is the disease status of the tested population clearly described?

   Yes  
   Can’t Tell  
   No

   HINT: Consider
   • presenting symptoms
   • disease stage of severity
   • co-morbidity
   • differential diagnoses (spectrum bias)

   Comments:

6. Were the methods for performing the test described in sufficient detail?

   Yes  
   Can’t Tell  
   No

   HINT: Consider
   • was a protocol followed

   Comments:

Section 3: What are the results?
7. What are the results?

HINT: Consider
• are the sensitivity and specificity and/or likelihood ratios presented
• are the results presented in such a way that we can work them out

Comments:

8. How sure are we about the results?

HINT: Consider
• could they have occurred by chance
• are there confidence limits
• what are they

Comments:

Section C: Will the results help locally?

Consider whether you are primarily interested in the impact on a population or individual level

9. Can the results be applied to your patients/population of interest?

Yes

Can’t Tell

No

HINT: Do you think your patients/population are so different from those in the study that the results cannot be applied, such as age, sex, ethnicity and spectrum bias

Comments:
10. Can the test be applied to your patient or population of interest?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Can't Tell</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HINT:** Consider
- resources and opportunity costs
- level and availability of expertise required to interpret the test
- current practice and availability of services

**Comments:**

11. Were all outcomes important to the individual or population considered?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Can't Tell</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HINT:** Consider
- will the knowledge of the test result improve patient wellbeing
- will the knowledge of the test result lead to a change in patient management

**Comments:**

12. What would be the impact of using this test on your patients/population?

**Comments:**
Appendix 11: Publication: Age, Psychiatry admission status and linear mental capacity for treatment decisions

Age, psychiatry admission status and linear mental capacity for treatment decisions

Aoife Curley1, Ruth Murphy2, Sean Fleming2, Brendan D. Kelly3*

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2 Department of Medicine, Midland Regional Hospital, Roscommon, County Roscommon, Ireland
3 Department of Medicine, Midland Regional Hospital, Roscommon, County Roscommon, Ireland

ARTICLE INFO

Keywords:
Mental health
Legislation
Mental disorder
Mental capacity
Age
Other issues

ABSTRACT

The relationship between age and mental capacity among psychiatry inpatients is not fully understood. We aimed to assess mental capacity for treatment decisions in voluntary and involuntary psychiatry inpatients in Ireland and, in this analysis of our dataset, to elucidate the linear relationship, if any, between linear (as opposed to categorical) mental capacity and age. We used the MacMillan Competence Assessment Tool for Treatment (MacCAT-T) to assess mental capacity for treatment decisions in 315 psychiatry inpatients (176 voluntary and 139 involuntary) from four psychiatry admission units in Ireland. Mean age was 46.2 years and majorities were male (58.3%) and single (74.8%), unemployed (64.2%) and of Irish ethnicity (87.9%). The most common primary diagnoses were schizophrenia and related disorders (38.3%) followed by affective disorders (36.7%). On multi-variable linear regression analysis, mental capacity was significantly associated with voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age. Together, these factors accounted for 44% of the variance in mental capacity between participants. Overall, while increased age is associated with diminished mental capacity, other factors appear more significant, including involuntary admission status which is likely an indicator of symptom severity. There is a need for further research in (a) elucidate the relationships between the significant factors identified in this study and the cognitive status of patients (which impacts on assessments of mental capacity); (b) identify and elucidate other factors of likely relevance to mental capacity (e.g. medical illness, medication use); and (c) examine these findings in targeted interventions to support decision-making in clinical practice among psychiatry inpatients, especially those with involuntary status.

1. Introduction

Decision-making capacity is a legal concept with a direct role in clinical practice (Duffy & Kelly, 2017; Kelly, 2015; Larkin & Hutton, 2017). Estimates of the rate of mental incapacity for treatment decisions among psychiatry inpatients vary considerably between studies. One systematic review found the medium proportion of psychiatry inpatients who lack mental capacity is 20% (Knaï et al., 2007) while another found that 45% lack mental capacity (Kemp, Stanley, & Turner, 2015). Some studies show an association between increasing age and mental incapacity in psychiatry inpatients (Appelbaum, Appelbaum, & Gross, 1998; Norton, Billik, McGarrick, & Schwartz, 1996; Roll et al., 1982), while others show no association (Cairns et al., 2009; Melamed, Kimchi, Shmit, Maldonaki, & Elazar, 1997; Spencer, Gogol, Kemp, & Owen, 2015). We know that increasing age correlates with mental incapacity in medical and surgical inpatients (Murphy, Fleming, Curley, Duffy & Kelly, 2016) but the relationship, if any, between mental incapacity and age in psychiatry inpatients is unclear and requires further study.

In Ireland, as in many other jurisdictions (e.g., England), lack of mental capacity does not form an explicit part of the legal criteria for involuntary psychiatric admission (Kelly, 2010). Ireland’s Mental Health Act 2001 permits involuntary admission when a person has a “mental disorder”, which means “mental illness, severe dementia or significant intellectual disability where: (a) because of the illness, disability or dementia, there is a serious likelihood of the person concerned causing immediate and serious harm to himself or herself or to other persons, or (b) because of the severity of the illness, disability or dementia, the judgment of the person concerned is so impaired that failure to admit the person to an approved centre (i.e. psychiatry inpatient unit) would be likely to lead to a serious deterioration in his or her condition or would prevent the administration of appropriate treatment”.

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treatment that could be given only by such admission, and (iii) the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent” (Section 21).

The legislation also defines mental illness, severe dementia and significant intellectual disability (Section 2(i)). Mental illness is “a state of mind of a person which affects the person's thinking, perceiving, emotion or judgment and which seriously impairs the mental function of the person to the extent that he or she requires care or medical treatment in his or her own interest or in the interest of others persons”. Severe dementia is “a state of arrested or incomplete development of mind of a person which includes significant impairment of intelligence and social function and an abnormal or seriously irresponsible conduct on the part of the person”.

In 2017, there was a total of 16,743 admissions to Irish psychiatric inpatient units and hospitals (a rate of 251.6 per 100,000 population), of which 1.9% were involuntary admissions under the 2001 Act (Daly & Craig, 2018). This yields an involuntary admission rate of 4.54 per 100,000 population, which is less than half the rate in England but still represents a significant number of patients each year (Gilmounay & Kelly, 2010).

Ireland’s criteria for involuntary admission do not, however, explicitly require a lack of mental capacity and therefore a person with full mental capacity can be an involuntary patient in Ireland. The aim of the present analysis of our dataset (Curley, Murphy, Plunkett, & Kelly, 2016a) was to assess lengths (as opposed to categorical) mental capacity (Curley, Murphy, Plunkett, & Kelly, 2019) in voluntary and involuntary psychiatry inpatients in Ireland and elucidate the linear relationship, if any, between linear mental capacity and age.

2. Material and methods

2.1. Setting

This cross-sectional observational study was based in four psychiatry inpatient units in the eastern part of Ireland: the acute psychiatry unit in Tallaght University Hospital, Dublin; the Drogheda Department of Psychiatry, Coslanes, Drogheda, County Louth; St Brigid’s Hospital, Ardee, County Louth; and the Department of Psychiatry, Connolly Hospital, Blanchardstown, Dublin. All of these units provide inpatient mental health care for public (i.e. non-breathing) adult patients and are operated by the Health Service Executive (HSE), Ireland’s governmental provider of public mental health care (i.e. free at point-of-use).

Tallaght University Hospital is one of Ireland’s largest acute teaching hospitals, located in suburban Dublin, and is one of the two main teaching hospitals of Trinity College Dublin. The acute psychiatry unit comprises 52 beds and associated facilities, and provides inpatient mental health care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection by the Inspector of Mental Health Services in 2017, this unit had 51 inpatients of whom 3 were involuntary (Inspector of Mental Health Services, 2017a).

The Drogheda Department of Psychiatry serves the more rural catchment area of counties Louth and Meath. It comprises 46 beds and associated facilities and provides inpatient mental health care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection in 2017, this unit had 44 inpatients of whom 12 were involuntary (Inspector of Mental Health Services, 2017b).

St Brigid’s Hospital in Ardee, County Louth is a dedicated, stand-alone psychiatry hospital currently comprising 20 beds and associated facilities. It provides medium- to long-term care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection in 2017, this unit had 15 inpatients of whom 11 were in the hospital and all but one of whom were aged over 65 years (Inspector of Mental Health Services, 2017c). All were voluntary.

Conolly Hospital Blanchardstown is a university teaching hospital for the Royal College of Surgeons in Ireland (RCSI) which provides acute medical and surgical services to north-west Dublin and surrounding areas of north Kildare and south county Meath. The Department of Psychiatry, Connolly Hospital comprises 47 beds and associated facilities. It provides inpatient mental health care to adults aged 18 years or over as both voluntary and involuntary patients under the Mental Health Act 2001. At the time of its inspection in 2017, this unit had 38 inpatients of whom 6 were involuntary (Inspector of Mental Health Services, 2017d).

2.2. Participants and recruitment

We recruited patients at all four psychiatry inpatient units from 21 July 2017 to 5 October 2018 (inclusive). For consideration for inclusion in the study, a patient had to be an inpatient in one of the four inpatient psychiatry units during the study period, aged 18 years or over; and proficient in the English language. We identified patients from inpatient census lists and recruited patients randomly from each unit over the study period. We included both voluntary and involuntary patients under Ireland’s Mental Health Act 2001.

This study did not compare outcomes across groups so, in place of a statistical power calculation, we selected a sample size of approximately 200 participants so that our study would be comparable with, or larger than, other key studies in the field (Cahill et al., 2005; Owen et al., 2006; Standardi et al., 2014, 2019). Approximately 200 participants was also a pragmatically achievable sample size in the study setting, proportionately and pragmatically divided between the participating psychiatry units.

2.3. Data collection

For each participant, we recorded their gender, age, marital status, employment status, ethnicity, admission status at time of assessment (voluntary or involuntary), and clinical diagnosis derived from each participant’s case file and coded using the World Health Organisations (WHO) International Classification of Mental and Behavioural Disorders (ICD-10) (World Health Organization, 1992).

The key outcome variable of interest was mental capacity assessed using the MacCarthy Competence Assessment Tool for Treatment (MacCAT-T) (Grillo, Applebaum, & Illi, 2017; Grillo & Applebaum, 1998; Murphy et al., 2019). The MacCAT-T is a semi-structured interview that yields scores on four scales (with higher scores indicating greater mental capacity): (1) understanding of the disorder and its treatment, including associated benefits and risks (rated from 0 to 6, comprising three sub-scales, each rated from 0 to 2: appreciation of the disorder and appreciation of treatment); (2) reasoning, which assesses the patient’s ability to analyse and compare different perspectives (rated from 0 to 2, comprising four sub-scales, each rated from 0 to 2: consequential reasoning, comparative reasoning, generating consequences and logical consistency); and (3) the ability to express a choice (rated from 0 to 2).

The MacCAT-T measures these elements of mental capacity on continuous scales with a high degree of inter-rater reliability (ranging between 0.99 for ‘understanding’ and 0.87 for ‘appreciation’) (Grillo et al., 1997; Stommel, 2008). Added together, these scores yield an
overall MacCAT-T score ranging from 0 to 20, with a higher score
broadly indicating greater mental capacity (although someone with
a high total score can lack categorial mental capacity if they score poorly
on a single subscale).

In our study, all ratings were performed by a trained clinician
with more than five years training in psychiatry and membership of
the Royal College of Psychiatrists (RCPs), consistent with established
methodology (Owen et al., 2003) and with appropriate ongoing supervision
by another trained assessor (BID). For additional quality control, there
were joint assessments of certain patients with another trained clinician
with more than five years training in psychiatry and membership of the
Royal College of Psychiatrists (RCPs), also under supervision (BID).

2.4. Consent

For the purposes of the present study, it was imperative that all
patients eligible to participate were approached and invited to partic-
cipate regardless of level of mental capacity, in order to gain a complete
picture of the prevalence of mental incapacity and avoid selection bias.
As a result, we developed a detailed, multi-step consent procedure as
follows:

- Any patient (with or without mental capacity) who indicated in any
  way that he or she did not wish to participate was excluded from
  the study immediately.

- We obtained written informed consent from patients with mental
capacity to provide such consent. There is a legal presumption of
mental capacity in Ireland so it was only in cases where we had
prima facie reason to believe that the patient lacked mental capacity
to consent to the study that we could question the presumption of
mental capacity to participate.

- For patients who lacked mental capacity to consent to the study, we
developed a next-of-kins/relative information leaflet and assent
form, and we obtained assent in this fashion from their next-of-kins
or relative when feasible; i.e., when a next-of-kins or relative was
named and available. On receiving such assent, we proceeded with
our assessments provided the patient assented and did not object at
any point. In these cases, we sought “deferred consent” if the patient
regained mental capacity during the study period. If, on regaining
mental capacity, any patient had declined to provide such “deferred
consent”, we would have destroyed the data relating to that patient,
but this situation did not arise in the study.

- For patients who lacked mental capacity to consent to the study and
there was no next-of-kins or relative named or available, we were to
proceed with our assessments provided the patient assented and did
not object at any point. In these cases, we were to seek “deferred
consent” if the patient regained mental capacity during the study
period. If, on regaining mental capacity, any patient had declined to
provide such “deferred consent”, we would have destroyed the data
relating to that patient, but this situation did not arise in the study.

2.5. Ethics

This study was approved by the Tallaght University Hospital/Step
Janes Hospital Joint Research Ethics Committee, Dublin, Ireland, the
HSE North East Area Research Ethics Committee, Bective Street, Kells,
County Meath, and the RCSI Research Ethics Committee, Dublin.
Steps to ensure patient confidentiality were taken to ensure
data were protected. Data was stored in a password-protected
computer in a locked research office. Data protection legislation was
adhered to and patient confidentiality protected at all times.

2.6. Statistics

Data were scored, described and analysed using IBM SPSS Statistics
23. For bi-variable analysis, we used the Student t-test, Chi Square test,
Mann-Whitney U test and Kruskal-Wallis test, as appropriate. For multi-
variable analysis, we generated a linear regression model with MacCAT-
T score (out of 20) as the dependent variable. Independent variables
were gender, age, marital status, employment status, ethnicity, admis-
sion status at time of assessment (voluntary or involuntary), clinical
diagnosis (classified according to IC10-10) and psychiatric unit in which
the patient was admitted (Tallaght Acute Psychiatry Unit, Droguba
Department of Psychiatry, St Bricgids Hospital, Ardee and Blanchardtown
Department of Psychiatry).

We tested for multicollinearity, which is when two or more vari-
ables are so closely related to each other that the model cannot reliably
distinguish the independent effects of each. For this, we calculated a
“tolerance value” for each independent variable; tolerance values below
0.25 indicate possible multicollinearity, and tolerance values below
0.10 indicate significant problems with multicollinearity (Katz, 1999).
There were no missing data.

3. Results

3.1. Sample characteristics

Two hundred and fifteen patients participated across the four psy-
chiatric inpatient units studied: 62 patients in the Tallaght Acute
Psychiatry Unit (28.8%); 59 in Drogheda Department of Psychiatry
(27.4%); 53 in St Bricgids Hospital, Ardee (6.0%); and 81 in
Blanchardtown Department of Psychiatry (37.7%).

A small majority of participants (54.1%; n = 125) were male. Mean
age was 46.2 years (standard deviation [SD]: 17.2). Almost three
quarters of participants (74.0%; n = 159) were never married; 14.4%
(n = 31) were married; 7.0% (n = 15) separated or divorced; and 4.7%
(n = 10) widowed. Majorities were unemployed (64.2%; n = 118) and
of Irish ethnicity (87.0%; n = 187). The most common primary diag-
noses were schizophrenia and related disorders (42.8%; n = 92) fol-
lowed by affective disorders (36.7%; n = 79), psychotic substance
use disorder (27.9%; n = 27), phobic anxiety disorder (4.3%; n = 3) and
others (2.9%; n = 5).

A majority of inpatients were voluntary patients at the time of the
study (71.9%; n = 176). Voluntary and involuntary patients did not
differ in terms of age (mean: 46.9 years, S.D. 17.1, and 43.0, S.D. 17.1,
respectively; t = 1.291, p = .262), gender, marital status, employment
status or psychiatric unit in which they were admitted, but
involuntary patients were more likely to be non-Irish and have a
primary diagnosis of schizophrenia or a related disorder (Table 1).

The distribution of total MacCAT-T scores for mental capacity for
treatment decisions was skewed to the left, with a median value of 17.6
(inter-quartile range [IQR]: 7.60–19.5), with a higher score broadly
indicating greater mental capacity, although someone with a high total
score can lack categorial mental capacity if they score poorly on a single
subscale.

3.2. Clinical and demographic correlates of mental capacity for treatment
decisions

On bi-variable testing, mental capacity was inversely correlated
with age (Spearman’s r = −0.192, p = .009) and significantly
associated with being employed, voluntary admission status and having a
primary diagnosis other than schizophrenia or a related disorder
(Table 2). On multi-variable linear regression analysis, mental capacity
was significantly associated with, in order of strength of association,
voluntary admission status, being employed, having a primary diag-
nosis other than schizophrenia or a related disorder, and younger age
Table 1
Characteristics of voluntary and involuntary psychiatric inpatients included in the study in four adult psychiatric inpatient units in Ireland.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Voluntary inpatients n = 176 n (%)</th>
<th>Involuntary inpatients n = 39 n (%)</th>
<th>Statistic</th>
<th>Chi Square p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>90 (51.5)</td>
<td>24 (61.6)</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>86 (48.5)</td>
<td>15 (38.5)</td>
<td></td>
</tr>
<tr>
<td>Mental status</td>
<td>Never married</td>
<td>129 (71.3)</td>
<td>38 (97.5)</td>
<td>2.918</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>44 (25.3)</td>
<td>7 (17.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Separated or divorced</td>
<td>10 (5.6)</td>
<td>2 (5.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>10 (5.7)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td>Unemployed</td>
<td>130 (75.3)</td>
<td>28 (71.8)</td>
<td>1.260</td>
</tr>
<tr>
<td></td>
<td>Employed</td>
<td>46 (26.5)</td>
<td>11 (28.2)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Irish</td>
<td>158 (89.8)</td>
<td>29 (74.4)</td>
<td>6.665</td>
</tr>
<tr>
<td></td>
<td>Non-Irish</td>
<td>18 (10.2)</td>
<td>13 (35.6)</td>
<td></td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td>Schizophrenia and related disorders</td>
<td>68 (38.6)</td>
<td>22 (56.4)</td>
<td>13.741</td>
</tr>
<tr>
<td></td>
<td>Affective disorders</td>
<td>59 (33.6)</td>
<td>11 (28.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychotic substance misuse</td>
<td>15 (8.6)</td>
<td>3 (7.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dementia</td>
<td>15 (8.6)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personality disorders</td>
<td>7 (4.0)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other disorders</td>
<td>5 (2.8)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Psychiatric unit in which person was admitted</td>
<td>Tallaght Acute Psychiatric Unit</td>
<td>48 (27.2)</td>
<td>11 (28.2)</td>
<td>4.135</td>
</tr>
<tr>
<td></td>
<td>Drogheda Department of Psychiatry</td>
<td>47 (26.7)</td>
<td>11 (28.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>St. Regis's Hospital, Limerick</td>
<td>13 (7.4)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blanchardstown Department of</td>
<td>48 (27.2)</td>
<td>11 (28.2)</td>
<td></td>
</tr>
<tr>
<td>Psychiatry</td>
<td>Psychiatry</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Table 3) This model was statistically significant (p < .001) and accounted for 44.4% of the variance in mental capacity between participants. All tolerance values were > 0.25 indicating no problems with multicollinearity.

4. Discussion

4.1. Mental incapacity for treatment decisions

We found that linear mental capacity for treatment decisions in psychiatry inpatients is significantly associated with voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age. Together, these factors account for almost half (44.4%) of the variance in mental capacity between psychiatry inpatients.

4.2. Comparison with the broader literature

The broader literature on age and mental capacity in psychiatry inpatients is decidedly mixed, with some, chiefly older, studies showing an association between increasing age and mental incapacity (Appelbaum et al., 1998; Narko et al., 1990; Ruck et al., 1982) and others showing no association (Cairns et al., 2005; Meldrum et al., 1997; Spencer et al., 2016). The association that we found between

Table 2
Bi-variable analysis of demographic and clinical correlates of mental capacity for treatment decisions among voluntary and involuntary patients in four adult psychiatric inpatient units in Ireland.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Median mental capacity score (inter-quartile range)</th>
<th>Statistical</th>
<th>Test statistic p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>17.08 (7.5250-18.300)</td>
<td>Mann-Whitney U: 0.377</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>18.45 (7.9182-18.650)</td>
<td>56/159.0</td>
</tr>
<tr>
<td>Mental status</td>
<td>Never married</td>
<td>17.56 (7.560-16.850)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>17.52 (7.560-16.850)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Separated or divorced</td>
<td>18.24 (7.518-17.918)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>17.5 (7.518-16.850)</td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td>Unemployed</td>
<td>16.5 (7.5250-18.850)</td>
<td>Mann-Whitney U: 0.001</td>
</tr>
<tr>
<td></td>
<td>Employed</td>
<td>16.0 (7.518-18.50)</td>
<td>66/25.0</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Irish</td>
<td>16.5 (7.5250-18.850)</td>
<td>Mann-Whitney U: 0.003</td>
</tr>
<tr>
<td></td>
<td>Non-Irish</td>
<td>14.3250 (7.5250-18.850)</td>
<td>2/26/50</td>
</tr>
<tr>
<td>Admission status</td>
<td>Voluntary</td>
<td>16.6750 (7.518-19.50)</td>
<td>Mann-Whitney U: 0.154</td>
</tr>
<tr>
<td></td>
<td>Involuntary</td>
<td>5.0 (7.518-10.50)</td>
<td>Mann-Whitney U: 0.154</td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td>Schizophrenia and related disorders</td>
<td>10.0 (7.518-12.50)</td>
<td>Mann-Whitney U: 0.001</td>
</tr>
<tr>
<td></td>
<td>Affective disorders</td>
<td>11.0 (7.518-14.50)</td>
<td>Mann-Whitney U: 0.001</td>
</tr>
<tr>
<td></td>
<td>Psychotic substance misuse disorders</td>
<td>13.58 (7.518-19.50)</td>
<td>Mann-Whitney U: 0.001</td>
</tr>
<tr>
<td></td>
<td>Bizarre or related disorders</td>
<td>13.58 (7.518-19.50)</td>
<td>Mann-Whitney U: 0.001</td>
</tr>
<tr>
<td></td>
<td>Personality disorders</td>
<td>15.56 (7.518-19.50)</td>
<td>Mann-Whitney U: 0.001</td>
</tr>
<tr>
<td></td>
<td>Other disorders</td>
<td>14.3250 (7.518-19.50)</td>
<td>Mann-Whitney U: 0.001</td>
</tr>
<tr>
<td>Psychiatry unit in which person was admitted</td>
<td>Tallaght Acute Psychiatric Unit</td>
<td>16.25 (7.5250-18.850)</td>
<td>Mann-Whitney U: 0.790</td>
</tr>
<tr>
<td></td>
<td>Drogheda Department of Psychiatry</td>
<td>15.30 (7.518-18.850)</td>
<td>Mann-Whitney U: 0.003</td>
</tr>
<tr>
<td></td>
<td>St. Regis's Hospital, Limerick</td>
<td>15.05 (7.518-18.850)</td>
<td>Mann-Whitney U: 0.003</td>
</tr>
<tr>
<td></td>
<td>Blanchardstown Department of Psychiatry</td>
<td>15.85 (7.518-18.850)</td>
<td>Mann-Whitney U: 0.003</td>
</tr>
</tbody>
</table>

Note: Mental capacity for treatment decisions was assessed using the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) (see text for details).
increasing age and mental incapacity was statically significant but relatively small in magnitude (Spearman's r = -0.192, p = .005 on bivariate testing; β = -0.105, p < .001 on multi-variate testing).

All three other factors associated with diminished mental capacity in our study had greater effect sizes: involuntary admission status, being unemployed, and having a primary diagnosis of schizophrenia or a related disorder (Table 3). The association between involuntary status and diminished mental capacity that we found is interesting in light of the fact that mental incapacity is not an explicit criterion for involuntary admission in Ireland (or many other countries, such as England). It is, however, likely that involuntary as opposed to voluntary admission status is associated with a greater level of symptom severity and diminished insight, and these or similar factors likely mediate the relationship between involuntary admission status and diminished mental capacity identified in this study.

The association we identified between unemployment and diminished mental capacity might be mediated by educational status, but the overall literature on this relationship is very inconsistent and further study is required to clarify the roles of education and socio-economic variables in relation to mental capacity in this population (Okai et al., 2007). There is more consistent evidence linking a diagnosis of psychotic illness with impaired decision-making capacity in relation to treatment, although not necessarily in relation to research (Spencer et al., 2015). We too found that having a primary diagnosis of schizophrenia or a related disorder was significantly associated with diminished mental capacity for treatment decisions, but the effect of diagnosis was not as strong as the effect of admission status or employment (although it was independent of them).

4.3. Strengths and limitations of the present study

Our study has several strengths. We included both voluntary and involuntary patients and our study (Carley et al., 2014a, 2014b) is comparable in size with leading studies in the field (Carm et al., 2009; Owen et al., 2009; Mandell et al., 2014, 2015). We also addressed an important and understudied topic, mental capacity among psychiatry inpatients, despite the ethical challenges inherent in conducting research among patients who might lack mental capacity for both research and treatment decisions, and some of whom are involuntary patients under mental health legislation. To address these issues, we developed our detailed consent procedure and our work was approved by three research ethics committees before commencement.

Weaknesses include the fact that our analysis was a cross-sectional one and did not take account of changes in mental capacity over the course of each patient’s admission. In clinical practice, many treatment decisions are deferred if a person has temporary mental incapacity and are made later, after the person has regained mental capacity or has accessed decision-making support services (e.g. advocates). Our study, however, looked at mental capacity at a single point in time, which provides an informative cross-sectional assessment of mental incapacity but could be usefully augmented by longitudinal assessments in future work.

We only recorded one diagnosis per patient (their primary diagnosis) when some patients might have had two significant diagnoses (e.g. schizophrenia and a comorbid psychoactive substance misuse disorder). In addition, it is important to note that cognitive performance is central to the MacCAT-T assessment of mental capacity (Birnba & Vellani, 2004; Mandell et al., 2012) and we did not assess cognition in the present study (see recommendations for future research, below).

We sought to minimise selection bias by including both voluntary and involuntary patients, studying four psychiatry inpatient units (although all were in the east of Ireland), and developing an inclusive consent procedure (to minimise selection bias). The use of a single rater for all assessments might have introduced assessment bias but we provided careful training, supervision, and joint assessments of certain patients with another trained clinician, also under supervision, in order to minimise bias.

5. Conclusions

From a clinical perspective, our findings indicate a need to target interventions to support decision-making towards those psychiatric inpatients most in need of such support, which include involuntary inpatients, the unemployed, those with schizophrenia or a related disorder, and, to a lesser extent older adults. Our findings also suggest that future research could fruitfully elucidate further the relationships between the significant factors identified in this study and the cognitive status of patients, which impacts significantly on both mental capacity and its assessment. There is also a need to identify and elucidate other factors of likely relevance to mental capacity other than those we studied, including level of education, co-morbid medical illness, use of medication, and overall symptom burden.

Animal and human rights

This study was performed in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. This study, including the procedure for obtaining informed consent from participants (outlined in the text), was approved by the Tallaght University Hospital/St James’s Hospital Joint Research Ethics Committee, Dublin, Ireland, the HSE North East Area Research Ethics Committee, Beehive Street, Sligo, County Sligo, and the Royal College of Surgeons in Ireland (RCSI) Research Ethics Committee, 121 St Stephen’s Green, Dublin 2.
Role of the funding source

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of Competing Interest

Note.

Acknowledgements

The authors are very grateful to the patients and staff who assisted with this study.

References


Appendix 12: Categorical mental capacity for treatment decisions among psychiatry inpatients in Ireland

Categorical mental capacity for treatment decisions among psychiatry inpatients in Ireland

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ABSTRACT

This study aimed to assess mental capacity for treatment decisions among psychiatry inpatients in Ireland and explore the relationship, if any, between mental capacity and various demographic and clinical variables. We assessed mental capacity for treatment decisions in 253 psychiatry inpatients in four psychiatry admission units. Almost half of the participants were female and the most common diagnoses were schizophrenia or a related disorder and affective disorders. Overall, 1.3% of participants lacked mental capacity for treatment decisions; 50.7% had partial mental capacity; and 47.9% had full mental capacity. These proportions did not differ between female and male patients. On multivariate regression analysis, greater mental capacity was significantly associated with, in order of strength of association, voluntary admission status, Irish ethnicity, being employed and younger age. However, while these relationships were statistically significant (i.e. were unlikely to have occurred by chance), together they accounted for just 27.9% of the variance in mental capacity between participants (i.e. they were not very strong). The relatively high rate of “partial mental capacity” identified in our work suggests that decision-making supports are likely to be of substantial importance in assisting psychiatry inpatients making decisions about treatment, especially involuntary inpatients whose mental capacity is especially likely to be imputed. Future research could usefully clarify and quantify the role of cognitive and other factors in relation to the unexplained variance (72.1%) in mental capacity identified in this study, and explore which models of supported decision-making are most likely to assist the substantial proportion (50%) of psychiatry inpatients who have partial mental capacity for treatment decisions, as well as the minority lacking such mental capacity (3.9%).

1. Introduction

Studies suggest that between 22% and 43% of psychiatry inpatients lack mental capacity for treatment decisions but the relationships between mental capacity and key demographic and clinical variables remain unclear (Klopp, Siuly, & Turner, 2015; Ikari et al., 2007). These are important issues: not only is mental incapacity for treatment decisions common among psychiatry inpatients (indicating a widespread issue) but, in addition, psychiatry inpatients can be subjected to involuntary treatment which further complicates the possible consequences of mental incapacity in this group. To compound matters, legal criteria for involuntary care differ significantly between jurisdictions (some explicitly require mental incapacity; others do not) and there is a remarkably small evidence base concerning population requirements for involuntary care, the psychological and psychiatric understandings of such requirements, and – the subject of this study – the prevalence and correlates of mental incapacity for treatment decisions in psychiatry inpatients, all of which are relevant, directly or indirectly, to issues of involuntary care and the right to self-determination.

With regard to gender, for example, one study by Owen et al. (2009) shows an association between a lack of mental capacity and being female, while the majority of studies do not (Meadun, Kinna, Scutt, Molokanski, & Illuna, 1997; Polner, Dums, Applebaum, & Jeste, 2004; Caimi et al., 2005; Spencer, Gergel, Uberti, & Couse, 2010). The relationship between mental capacity and psychiatry admission status also likely varies between jurisdictions as criteria for involuntary care vary (Kelly, 2015; 2016). Many studies indicate that mental incapacity for treatment decisions is associated with involuntary admission status (Caimi et al., 2005; Mandrell et al., 2014; Mazzonis, Cooper, Porter, & Livingston, 2009; Spencer et al., 2018), but Spencer et al. (2018) demonstrate no association between involuntary admission status and
decision-making capacity to participate in research.

The aim of the present study was to assess mental capacity in psychiatry inpatients in Ireland and elucidate the relationships, if any, between mental capacity, psychiatric admission status, gender and other key demographic and clinical variables. Most studies in this area to date have used either binary ratings of mental capacity (mental capacity rated as either present or absent) or the continuous scales, such as the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) (Grisso & Appelbaum, 1986; Grisso, Appelbaum, & Bill-Hansen, 1997; Murphy, Fleming, Curley, Duffy, & Kelly, 2018) which yields a mental capacity score ranging from 0 to 20, with a higher score indicating greater mental capacity (Leppig et al., 2015; Okai et al., 2007).

In Ireland, as in many other jurisdictions (e.g. England and Wales), lack of mental capacity is not an explicit part of the legal criteria for involuntary psychiatric admission (Kelly, 2016). Ireland's Mental Health Act 2001 permits involuntary admission when a person has a “mental disorder”, which is defined as “mental illness, severe dementia or significant intellectual disability where (a) because of the illness, disability or dementia, there is a serious likelihood of the person concerned causing immediate and serious harm to himself or herself or to others, or (b) because of the severity of the illness, disability or dementia, the judgment of the person concerned is so impaired that failure to admit the person to an approved centre (i.e. inpatient psychiatric unit) would be likely to lead to a serious deterioration in him or her condition or would prevent the administration of appropriate treatment that could be given only by such admission, and (d) the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent” (Section 2(1)).

In 2017, there were 16,713 admissions to Irish psychiatric inpatient units and hospitals (yielding a rate of 351.6 per 100,000 population), of which 13% were involuntary admissions under the Mental Health Act 2001 (Daly & Craig, 2010). This yields a rate of 45.4 involuntary admissions per 100,000 population per year, which is less than half the rate in England (Gilhooley & Kelly, 2018).

The present study did not compare outcomes across groups, as in place of a statistical power calculation, we selected a sample size of approximately 200 participants so that our study would be comparable with, or larger than, other key studies in the field (Cairns et al., 2005; Mandarrelli et al., 2014; Mandarrelli et al., 2018; Oomen et al., 2009). In addition, approximately 200 participants was a pragmatically achievable sample size in the study setting, pragmatically and proportionately divided between the four participating psychiatry units.

2.2. Participants, recruitment and psychiatric admission status

We recruited inpatients in four participating psychiatry units from 31 July 2017 to 5 October 2018 inclusive. For consideration for inclusion, a patient had to be an inpatient in one of the four inpatient psychiatry units during the study period; aged 18 years or over; and proficient in the English language. We identified patients from inpatient census lists and recruited patients based on availability and eligibility from each of the four units over the study period. On the day of assessment, all those eligible for assessment were approached for consent to participate. We included both voluntary and involuntary patients under Ireland’s Mental Health Act 2001.

In Ireland, as in many other jurisdictions (e.g. England and Wales), lack of mental capacity is not an explicit part of the legal criteria for involuntary psychiatric admission (Kelly, 2016). Ireland's Mental Health Act 2001 permits involuntary admission when a person has a “mental disorder”, which is defined as “mental illness, severe dementia or significant intellectual disability where (a) because of the illness, disability or dementia, there is a serious likelihood of the person concerned causing immediate and serious harm to himself or herself or to others, or (b) because of the severity of the illness, disability or dementia, the judgment of the person concerned is so impaired that failure to admit the person to an approved centre (i.e. inpatient psychiatric unit) would be likely to lead to a serious deterioration in him or her condition or would prevent the administration of appropriate treatment that could be given only by such admission, and (d) the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent” (Section 2(1)).

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2.3. Data collection methodology

All assessments were carried out based on the patient’s own diagnosis and the treatment they were receiving according to the records documented by their treating team. Once a patient consented to participate in the study, the researcher gathered the required information from their clinical file and identified the key treatment decisions that the patient faced at that time. For each participant in the study, we recorded gender, age, marital status, employment status, ethnicity, admission status at time of assessment (voluntary or involuntary) and clinical diagnosis derived from each participant’s case file, coded using the World Health Organization (WHO) International Classification of Mental and Behavioural Disorders (ICD-10) (WHO, 1992).

The key outcome variable was mental capacity for treatment decisions assessed using the MacCAT-T, a semi-structured interview that yields scores on four separate scales (with higher scores indicating greater mental capacity); (1) understanding of the disorder and its treatment, including associated benefits and risks (rated from 0 to 5); (2) appreciation of the disorder and its treatment; (i.e. how the patient understands how they specifically could be affected, which usually entails some degree of
insight (rated from 0 to 4, made up of two sub-scales, each rated from 0 to 2: appreciation of the disorder and appreciation of treatment); (3) reasoning, which assesses the processes behind the decision and ability to compare alternatives in view of the consequences (rated from 0 to 8, made up of four sub-scales, each rated from 0 to 2: consequential reasoning, comparative reasoning, generating conclusions and logical consistency); and (4) the ability to express a choice (which is rated from 0 to 8). (Grisso et al., 1997; Grisso & Appelbaum, 1998; Murphy et al., 2010).

The MacCAT-T measures these four elements of mental capacity on continuous scales with a high degree of inter-rater reliability (ranging between 0.99 for ‘understanding’ and 0.93 for ‘appreciation’) (Grisso et al., 1997; Shumley, 2005). When added together, these scores yield an overall MacCAT-T score ranging from 0 to 20, with a higher score indicating greater mental capacity for treatment decisions.

The initial use of the MacCAT-T did not involve establishing cut-off scores to generate categorical assessments of mental capacity; instead, it was encouraged to couple the MacCAT-T with other tools or clinical evaluations to inform mental capacity assessments. However, cut-off scores have been used in various research studies and have clinical utility. For this present analysis, we followed the method outlined by Kobayashi, Kartschnig, Ruane, and Cofer (2014) who noted that previous studies of the MacCAT-T had used cut-off scores to classify levels of decisional impairment. Building on this work, they generated scores classifying participants as ‘impaired’, ‘borderline’ or ‘unimpaired’ on each of four subscales (understanding, appreciation, reasoning, and expressing a choice) based closely on the MacCAT-T instrument.

For the understanding subscale, scores in the 0 to 2 range were classified as ‘impaired’; scores of 3 or greater were ‘unimpaired’, and scores in between these extremes were ‘borderline’. On the appreciation subscale, scores below 2 were classified as ‘impaired’; scores of 3 or greater were ‘unimpaired’, and scores in between were ‘borderline’. On the reasoning subscale, scores below 4 were classified as ‘impaired’; scores of 5 or greater were ‘unimpaired’, and scores in between were ‘borderline’. On the expressing a choice subscale, scores below 1 were classified as ‘impaired’; scores of 2 or greater were ‘unimpaired’, and scores in between were ‘borderline’.

As a result, following this recoding, each subscale score ranged from 0 to 2, where 0 indicated that the participant lacked the ability to perform the task; 1 indicated partial ability; and 2 indicated adequate ability (Kobayashi et al., 2014). Taken together, these four subscales yielded a second overall mental capacity score ranging from 0 to 8, with scores of 0 indicating lack of mental capacity, 8 indicating full mental capacity, and scores in between indicating partial mental capacity.

In our study ratings were performed by a trained clinician with more than five years training in psychiatry and membership of the Royal College of Psychiatrists (RC), consistent with established methodology (Murphy et al., 2015; Pope et al., 2013) and with ongoing supervision by another trained assessor (RDI). For additional quality control, there were joint assessments of certain patients with another trained clinician, also with more than five years training in psychiatry and membership of the Royal College of Psychiatrists (RM), and also under supervision (RDI).

2.4. Consent procedure

For this study, it was imperative that all patients who were eligible to participate were approached and invited to participate regardless of level of mental capacity, in order to gain a complete picture of the prevalence of mental incapacity and avoid selection bias. To achieve this, we developed a detailed, multi-step consent procedure as follows.

First, any patient (with or without mental capacity) who indicated in any way that they did not wish to participate was excluded from the study immediately.

Second, we obtained written informed consent from patients with mental capacity to provide this consent. There is a legal presumption of mental capacity in Ireland so it was only in cases where there was a prima facie reason to believe that the patient lacked mental capacity to consent to the study that we could question the presumption of mental capacity to participate in the study.

Third, for patients who lacked mental capacity to consent to the study, we developed a next-of-kin/relative information leaflet and consent form, and we obtained assent in this fashion from their next-of-kin or relative where feasible (i.e. when a next-of-kin or relative was named and available). On receiving such consent, we proceeded with our assessments provided the patient assented and did not object to participation at any point. In these cases, we later sought ‘deferred consent’ if the patient regained mental capacity during the study period. If, on regaining mental capacity, any patient had declined to provide such ‘deferred consent’, we would have destroyed that patient’s data, but this situation did not arise in the study.

Fourth, for patients who lacked mental capacity to consent to the study and there was no next-of-kin or relative named or available to provide consent, we went ahead with our assessments provided the patient assented and did not object at any point. In these cases, we were to seek ‘deferred consent’ if the patient regained mental capacity later in the study period. If, on regaining mental capacity, any patient had declined to provide such ‘deferred consent’, we would have destroyed that patient’s data, but this situation did not arise in the study.

2.5. Ethical approval

This study received ethical approval from the Tallaght University Hospital St James’s Hospital Joint Ethics Committee, Dublin, Ireland, the HSE North East Area Research Ethics Committee, Beehive Street, Kells, County Meath, and the RCSI Research Ethics Committee, 121 St Stephen’s Green, Dublin 2. This study was performed in accordance with IRLANDS Data Protection Protection Guidelines on Research in the Health Sector (Data Protection Commissioner, 2005) and the Declaration of Helsinki (World Medical Association, 2000). Data were anonymized, encrypted and stored on a password-protected research computer in a locked research office. Patient confidentiality was protected and data protection legislation adhered to at all times.

2.6. Statistical analysis

Data were analysed using IBM SPSS Statistics 22. For bi-variable analysis, we used the Student t and Chi square tests, as appropriate. For multi-variable analysis, we generated a multi-variable regression model with mental capacity (lack of partial/full mental capacity) as the dependent variable. Independent variables were gender, age, marital status, employment status, ethnicity, admission status at time of assessment, clinical diagnosis and psychiatry unit in which the person was admitted (Tallaght Acute Psychiatry Unit, Drongha Department of Psychiatry, St Brigid’s Hospital (Adare) or Blanchardstown Department of Psychiatry).

We tested the model for multicollinearity, which is when two or more variables are so closely related to each other that the model cannot reliably distinguish the independent effects of each. To achieve this, we calculated a “tolerance value” for each independent variable: tolerance values below 0.25 indicate possible multicollinearity, and tolerance values below 0.10 indicate significant problems with multicollinearity (Katz, 1999). There were no missing data.

3. Results

3.1. Sample characteristics

The study sample comprised 215 patients of whom 41.6% (n = 90) were female. Mean age was 46.2 years (standard deviation (SD): 17.2). A majority were never married (74.0%; n = 159); 14.4% (n = 31) were married; 7.2% (n = 15) separated or divorced; and 4.7% (n = 10)
Table 1
Characteristics of female and male psychiatry inpatients included in the study of categorical mental capacity for treatment decisions in four adult psychiatry inpatient units in Ireland.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Female inpatients n = 90</th>
<th>Male inpatients n = 125</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>50 (55.6)</td>
<td>130 (80.6)</td>
<td>6.700</td>
</tr>
<tr>
<td>Married</td>
<td>19 (21.1)</td>
<td>12 (7.6)</td>
<td></td>
</tr>
<tr>
<td>Separated or divorced</td>
<td>7 (7.8)</td>
<td>8 (6.4)</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>5 (5.6)</td>
<td>5 (4.0)</td>
<td></td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>56 (62.2)</td>
<td>82 (65.4)</td>
<td>0.290</td>
</tr>
<tr>
<td>Employed</td>
<td>34 (37.9)</td>
<td>43 (34.4)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>60 (66.7)</td>
<td>117 (93.6)</td>
<td>0.500</td>
</tr>
<tr>
<td>Non-Irish</td>
<td>30 (33.3)</td>
<td>11 (7.4)</td>
<td></td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia and related</td>
<td>31 (34.4)</td>
<td>61 (48.8)</td>
<td>13.520</td>
</tr>
<tr>
<td>disorders</td>
<td>44 (48.8)</td>
<td>30 (24.5)</td>
<td></td>
</tr>
<tr>
<td>Psychotic spectrum disorders</td>
<td>3 (3.3)</td>
<td>14 (11.2)</td>
<td></td>
</tr>
<tr>
<td>Personality disorders</td>
<td>6 (6.7)</td>
<td>9 (7.2)</td>
<td></td>
</tr>
<tr>
<td>Personality disorders</td>
<td>4 (4.4)</td>
<td>3 (2.4)</td>
<td></td>
</tr>
<tr>
<td>Other disorders</td>
<td>2 (2.2)</td>
<td>3 (2.4)</td>
<td></td>
</tr>
<tr>
<td>Admission status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td>74 (82.2)</td>
<td>112 (88.6)</td>
<td>0.014</td>
</tr>
<tr>
<td>Involuntary</td>
<td>16 (17.9)</td>
<td>18 (14.4)</td>
<td></td>
</tr>
<tr>
<td>Mental capacity (total)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>1 (1.1)</td>
<td>3 (2.4)</td>
<td>2.407</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>41 (45.6)</td>
<td>64 (51.2)</td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>48 (53.3)</td>
<td>54 (42.2)</td>
<td></td>
</tr>
<tr>
<td>Mental capacity (underestimating)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>9 (10)</td>
<td>14 (11.2)</td>
<td>3.254</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>29 (32.6)</td>
<td>54 (42.2)</td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>52 (57.8)</td>
<td>57 (46.6)</td>
<td></td>
</tr>
<tr>
<td>Mental capacity (appreciation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>25 (27.8)</td>
<td>37 (29.4)</td>
<td>1.45</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>6 (6.7)</td>
<td>11 (8.8)</td>
<td></td>
</tr>
<tr>
<td>Full mental capacity</td>
<td>59 (65.6)</td>
<td>73 (58.4)</td>
<td>3.279</td>
</tr>
<tr>
<td>Mental capacity (expressing choice)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacks mental capacity</td>
<td>1 (1.1)</td>
<td>3 (2.4)</td>
<td>0.476</td>
</tr>
<tr>
<td>Partial mental capacity</td>
<td>89 (98.9)</td>
<td>122 (97.6)</td>
<td></td>
</tr>
</tbody>
</table>

widowed. Majors were unemployed (64.2%; n = 118) and of Irish ethnicity (67.9%; n = 187). The most common diagnoses were schizophrenia and related disorders (42.8%; n = 92) followed by affective disorders (36.7%; n = 79), psychotic spectrum disorders (including alcohol) (7.9%; n = 17), personality disorders (7.9%; n = 15), paranoid disorders (3.3%; n = 7) and other (2.3%; n = 5). A majority were involuntary (81.9%; n = 176) rather than involuntary patients (18.1%; n = 39).

Female and male participants did not differ in terms of age (mean ages 48.3 years, 51.7; 44.6, 50.6 respectively; x = 1.663, p = 0.098), marital status, employment status, ethnicity or admission status (Table 1). In terms of diagnosis, schizophrenia and related disorders were more common among male participants and affective disorders were more common among female participants.

The distribution of mental capacity scores was non-normal, skewed to the left. Overall, 1.9% of participants (n = 4) lacked mental capacity for treatment decisions; 56.7% (n = 100) had partial mental capacity; and 47.4% (n = 102) had full mental capacity. With respect to the ability to understand information about diagnosis and treatment, 10.7% of participants (n = 29) lacked this ability; 58.6% (n = 83) had partial ability; and 30.7% (n = 189) had full ability. In relation to appreciation, 28.9% (n = 62) lacked the ability to appreciate information relating to their diagnosis and its treatment; 88.8% (n = 19) had partial ability; and 12.2% (n = 154) had full ability. In relation to reasoning, 38.9% (n = 73) lacked the ability to reason; 65.6% (n = 14) had partial ability; and 95.5% (n = 128) had full ability. Only 1.9% (n = 4) lacked the ability to express a choice; none had partial ability; and 98.1% had full ability. These proportions did not differ between female and male participants on bivariate testing (Table 1).

Our scoring methodology meant that all participants deemed to have full mental capacity for treatment decisions (n = 102) had full ability to understand and appreciate relevant information, reason and express a choice. All four participants who lacked mental capacity lacked all four abilities; i.e. lacked the ability to understand, appreciate, reason and express a choice.

Among participants deemed to have partial mental capacity (n = 109); 17.7% (n = 19) lacked the ability to understand the information; 76.1% (n = 83) had partial ability; and 6.4% (n = 7) had full ability. In relation to appreciation, 53.2% (n = 58) lacked the ability to appreciate information relating to their diagnosis and its treatment; 17.4% (n = 19) had partial ability; and 29.4% (n = 32) had full ability. In relation to reasoning, 63.3% (n = 69) lacked the ability to reason; 12.8% (n = 14) had partial ability; and 23.8% (n = 19) had full ability. All participants with partial mental capacity had full ability to express a choice.

3.2. Clinical and demographic correlates of mental capacity for treatment decisions

On multi-variable regression analysis, greater mental capacity was significantly associated with, in order of strength of association, voluntary admission status, Irish ethnicity, being employed and younger age (Table 2). The regression model was statistically significant (p < 0.001) and the variables included altogether accounted for 27.6% of the variance in mental capacity between participants.

There was a borderline statistically significant association between greater mental capacity and female gender on multi-variable testing (p = 0.041). All tolerance values were > 0.25, indicating no problems with multicollinearity.

4. Discussion

4.1. Mental incapacity for treatment decisions

We found that 1.9% of psychiatry inpatients lack mental capacity for treatment decisions; 53.7% have partial mental capacity; and 47.4% lack all four abilities; i.e. lacked the ability to understand, appreciate, reason and express a choice.
Table 1
Multi-variable regression analysis of demographic and clinical correlates of categorical mental capacity for treatment decisions among female and male patients in four adult psychiatry inpatient units in Ireland

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>β</th>
<th>Standard error</th>
<th>p</th>
<th>Tolerance value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Mental status</td>
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<tr>
<td>Employment status</td>
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<tr>
<td>Ethnicity</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Admission status time of assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Psychiatry unit in which the person was admitted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: This table presents a multi-variable regression analysis of categorical mental capacity for treatment decisions as per the MacArthur Competence Assessment Tool for Treatment (MacCAT-T) as the dependent variable (last of full mental capacity): $r^2 = 0.276$, $p < 0.001$. *All tolerance values were > 0.25 indicating no problems with multicollinearity (Laut, 1999).*

have full mental capacity. Greater mental capacity is significantly associated with voluntary admission status. Irish ethnicity, being unemployed and younger age. However, while these relationships are statistically significant (i.e. are unlikely to have occurred by chance), they together account for just 19.5% of the variance in mental capacity between participants and leave most of the variance (72.4%) unexplained.

4.2 Comparison with the broader literature

The previous literature on this topic from a variety of countries shows that between 29% and 45% of psychiatry inpatients lack mental capacity for treatment decisions (Leping et al., 2015; Okai et al., 2007). We found that only 47.4% of psychiatry inpatients in our study had full mental capacity but we sought to develop this literature by identifying patients with "partial" mental capacity, as well as those who lacked mental capacity and had full mental capacity. We took this approach in order to identify the characteristics of patients most likely to benefit from different levels of decision-making supports and to estimate the need for such services to optimise mental capacity among psychiatry inpatients.

We found that a substantial proportion (50.7%) of psychiatry inpatients have partial mental capacity. We feel that this finding highlights the need for decision-making supports in this group, especially among involuntary patients, to assist them in increasing and exercising their mental capacity (Leping et al., 2015). Mental Capacity Act 2015 outlines a range of supports to assist this group, including "decision-making assistants", "co-decision makers" (joint decision-makers) and "decision-making representatives" (substitute decision-makers) (Kish, 2017). This legislation is in the process of being implemented and it aims to optimise mental capacity and increase autonomy among persons with diminished mental capacity through its graduated approach to providing support.

Among the psychiatry inpatients in our study with partial mental capacity (56.7%), all had full mental capacity to express their choice. Smaller proportions were capable of understanding the disorder and its treatment (6.4%), appreciating the disorder and its treatment (29.4%) and reasoning (23.9%). This suggests that majorities of patients with partial mental capacity would likely benefit from support across all three of these areas, especially in relation to understanding the disorder and its treatment.

Our decision to divide mental capacity into three categories (no, partial and full mental capacity) is consistent with Kolva et al. (2014), among others, but contrasts with the approach in Ireland's Assisted Decision-Making (Capacity) Act 2015 which regards mental capacity as either absent or present, although the constituent elements of mental capacity in the Act (understanding, retention, using or weighing up, and communicating) overlap significantly with those in the MacCAT-T (understanding, appreciation, reasoning and expressing a choice). In our study, patients we categorised as having no or partial mental capacity would be regarded as having no mental capacity according to the Act's binary definition.

The 2015 Act, however, takes a more nuanced approach when it outlines decision-making supports, implicitly recognising a middle category in which impaired mental capacity can be restored by a decision-making assistant or co-decision-maker. For example, the involvement of a co-decision-maker as a joint decision-maker would result, according to the Act, in a capacious decision by the person themselves (the "appointer"). More specifically, section 21(4)(c) states that an "appointment to register a co-decision-making agreement" must be accompanied by a "statement by a registered medical practitioner and a statement by another professional that the appointer has capacity to make the relevant decisions specified in the co-decision-making agreement with the assistance of the co-decision-maker".

Overall, in terms of the interaction between our findings and the Act, we identified in our study as having full mental capacity for treatment decisions (47.4%) would not require any supports under the legislation; those with partial mental capacity (50.7%) would likely benefit from decision-making assistants or co-decision-makers; and those who lacked mental capacity (1.9%) may require a "decision-making representative" for treatment decisions (i.e. substitute decision-making), especially if decision-making assistants or co-decision-makers did not appear appropriate or did not prove sufficient.

We also sought, in the present analysis, to focus explicitly on the relationships, if any, between categorical mental capacity, psychiatric admission status, gender and other clinical variables. Like most studies (Caimi et al., 2005; Helman et al., 1997; Paltier et al., 2004; Spencer et al., 2018), we found no robust relationship between gender and mental capacity, although one study found an association between lack of mental capacity and being female (Owen et al., 2009). Like previous work, we confirmed a relationship between involuntary admission status and mental capacity (Caimi et al., 2005; Mandarelli et al., 2014; Maxmin et al., 2009; Okai et al., 2007; Spencer et al., 2018), even though incapacity is not an explicit part of the criteria for involuntary care in Ireland (Spencer et al., 2018) found no association between involuntary admission status and decision-making capacity to participate in research, highlighting the potential to retain mental capacity in one area while lacking it in another, and the importance of decision-specific capacity assessments.

The distribution of mental capacity scores in our study was non-normal and skewed to the left. Our decision to divide mental capacity into three categories (no, partial and full mental capacity) was decided prior to data collection, based on the criteria used for mental capacity in the MacCAT-T and the methodology of Kolva et al. (2014), among others. Other divisions or categorisations could, however, usefully be investigated in the future, based more closely on distributions of mental capacity scores in relevant populations, such as that demonstrated in our study.

4.3 Strengths and limitations of the present study

In terms of strengths, our study addressed an important, understudied topic, mental capacity among psychiatry inpatients, despite the ethical challenges inherent in conducting research among patients who might lack mental capacity for both research and treatment decisions. Our study also included both voluntary and involuntary patients; is comparable in size with leading studies in the field (Carmi et al., 2005; Mandarelli et al., 2014; Mandarelli et al., 2018; Owen et al., 2009); and included a category of "partial mental capacity" as it provides a more
graduated assessment of categories of mental capacity (compared to the more usual binary assessments of mental capacity or the linear MacCAT-T approach); this was in order to optimise clinical relevance.

Methodological weaknesses include the fact that our cross-sectional analysis did not take account of possible changes in mental capacity over the course of time; we recorded only one diagnosis per patient (their primary diagnosis) when some patients might have had two significant diagnoses; and we did not measure cognitive performance, which is important in the MacCAT-T assessment (Renden & Vollmann, 2004; Mandalari et al., 2012). To reduce bias, we included both voluntary and involuntary patients, studied four psychiatric inpatient units, and developed an inclusive consent procedure, although the use of a single rater for all assessments might still have introduced assessment bias; we provided careful training, supervision, and joint assessments of certain patients (under supervision) in order to minimize this possibility.

5. Conclusion

The relatively high rate of "partial mental capacity" among psychiatric inpatients identified in this study (50.7%) suggests that decision-making supports are likely to be of substantial importance in assisting many psychiatric inpatients making decisions about treatment. This is likely to be especially relevant among involuntary inpatients whose mental capacity is especially likely to be reduced and whose will and preferences therefore require greater focus and particular attention during and between episodes of care (Duffy & Kelly, 2017).

Future research could usefully clarify and quantify the role of cognitive and other factors in relation to the unexplained variance (71.4%) in mental capacity identified in this study, and explore the possible relevance of other factors (e.g. psychiatric symptoms) which might be related to, but not identical with, the factors we studied (e.g. admission status). Future work could also usefully explore which models of supported decision-making are most likely to assist the substantial proportion (50.7%) of psychiatric inpatients who have partial mental capacity for treatment decisions, and who might have greater mental capacity if appropriate supports were made available to them through mechanisms such as those proposed in Irlands Aiming Assisted Decision-Making (Capacity) Act 2015.

Acknowledgements

The authors appreciate the cooperation and support of the patients and staff who assisted with this study. The authors are very grateful to the editor and reviewers for their comments and suggestions.

Declaration of interest

None.

Animal and human rights

This study was performed in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. This study, including the procedure for obtaining informed consent from participants (outlined in the text), was approved by the Tallaght University Hospital/St James's Hospital Joint Research Ethics Committee, Dublin, Ireland, the HSE North East Area Research Ethics Committee, Bective Street, Kells, County Meath, and the Royal College of Surgeons in Ireland (RCSI) Research Ethics Committee, 121 St Stephen's Green, Dublin 2.

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Submission declaration

The work described has not been published previously, is not under consideration for publication elsewhere, its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and, if accepted, will not be published elsewhere including electronically in the same form, in English or in any other language, without the written consent of the copyright-holder.

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Appendix 13: Concordance of mental capacity assessments based on legal and clinical criteria: A cross-sectional study of psychiatry inpatients

Concordance of mental capacity assessments based on legal and clinical criteria: A cross-sectional study of psychiatry inpatients

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ABSTRACT

This study aimed to compare assessments of mental capacity based on legal criteria with assessments based on clinical criteria among psychiatric inpatients to establish the concordance, if any, between these two approaches in assessing mental capacity. We assessed mental capacity for treatment decisions in 215 psychiatry inpatients (17% voluntary and 30% involuntary) in four psychiatry admission units in Ireland using both legal criteria (Ireland’s Mental Health Act 2001) and clinical criteria (the MacArthur Competence Assessment Tool for Treatment/MCATT). Our study found that 56.0% of patients had mental incapacity for treatment decisions according to the legal criteria. Mental incapacity was associated with involuntary admission status, being unimpaired, a primary diagnosis of schizophrenia or a related disorder, and older age. Patients who lacked mental capacity according to the legislation scored significantly lower on all subscales of the MacCAT-T than patients who had mental capacity. We conclude that mental capacity assessments based on legal criteria correlate closely with those based on clinical criteria. These findings support current legal definitions of mental incapacity in Ireland and other jurisdictions with similar legislation (e.g., England and Wales).

I. Introduction

Definitions of mental capacity vary between legislation and clinical practice, and legislative definitions can also vary between jurisdictions, with no universally agreed legal criteria for mental capacity for treatment decisions (Owen et al., 2006a). Consistent with this, international studies show considerable variation in their estimates of the rate of mental incapacity among psychiatry inpatients. A systematic review by Oths et al. (2007) found that 29% of psychiatry inpatients lack mental capacity for treatment decisions while another found the median proportion to be 65% (Cregg et al., 2015). A study by Owen et al. (2008) found that 50% (95% confidence interval, 5%–65%) lacked mental capacity to make treatment decisions and Cairns et al. (2005) reported that 45.8% were incapable of making treatment decisions. To our knowledge, there have been no studies of psychiatry inpatients comparing assessments of mental capacity based on legal definitions (which generally provide a binary assessment of mental capacity as either present or absent) with assessments based on structured clinical evaluations (which often provide a linear rather than categorical output) (Murphy et al., 2018).

The current legislative situation in Ireland presents a unique opportunity to study this issue. Ireland’s Mental Health Act 2001 (Capacity) Act 2015, which has yet to be commenced, aims to assist persons in exercising their decision-making capacity and was signed by the President of Ireland in December 2015. Preparation is now underway for full implementation (Kelly et al., 2019). The new statutory framework will extensively reform the law for people whose mental capacity is in question and who need help making decisions now or in the future (Kelly, 2017).

Ireland’s 2015 Act defines mental incapacity (rather than capacity) by stating that “a person lacks the capacity to make a decision if he or she is unable (a) to understand the information relevant to the decision, (b) to retain that information long enough to make a voluntary choice, (c) to use or weigh that information as part of the process of making the decision, or (d) to communicate his or her decision” (Section 3(3)). This definition of mental incapacity bears a close resemblance to definitions in legislation in a number of other countries, including England and Wales.

Lack of mental capacity is not an explicit part of legal criteria for involuntary psychiatric admission in Ireland (Kelly, 2018). Ireland’s Mental Health Act 2001 allows involuntary admission when a person has a ‘mental disorder’, which is defined as ‘mental illness, severe dementia or significant intellectual disability where (a) because of the illness, disability or dementia, there is a serious likelihood of the person...’

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concerned causing immediate and serious harm to himself or herself or to other persons, or (b) (i) because of the severity of the illness, disability or dementia, the judgment of the person concerned is so impaired that failure to admit the person to an approved centre [i.e. inpatient psychiatry unit] would be likely to lead to a serious deterioration in his or her condition or would prevent the administration of appropriate treatment that could be given only by such admission, and (ii) the reception, detention and treatment of the person concerned in an approved centre would be likely to benefit or alleviate the condition of that person to a material extent (Section 3(1)). The 2001 Act defines “voluntary patient” as ‘a person receiving care and treatment in an approved centre who is not the subject of an admission order or a removal order’ (Section 2(1)). This definition does not consider whether or not the “voluntary patient” has mental capacity for treatment decisions.

In practice, most clinical assessments of mental capacity among psychiatric inpatients are essentially clinical cognitive assessments, similar to that outlined in the MacArthur Competence Assessment Tool for Treatment (MacCAT-T), a semi-structured interview assessing a person’s ability to understand and appreciate a disorder and its treatment, their reasoning and their ability to communicate a decision (Einolf et al., 1997; Grisso and Appelbaum, 1999).

Using the MacCAT-T, we previously reported that 1.8% of psychiatric inpatients lack mental capacity for treatment decisions; 50.7% have partial mental capacity; and 47.4% have full mental capacity (Carley et al., 2016b). In addition, we found that mental capacity for treatment decisions in psychiatric inpatients is significantly associated with voluntary admission status, being employed, having a primary diagnosis other than schizophrenia or a related disorder, and younger age (Carley et al., 2016a).

Against that background, the objectives of the present analysis of this dataset are to (a) assess the prevalence of mental incapacity in 215 psychiatric inpatients in Ireland using the legal criteria for mental incapacity set out in the Assisted Decision-Making (Capacity) Act 2015 (as opposed to clinical criteria); and (b) perform the first direct comparison of outcomes of legal and clinical assessments of mental incapacity, using both Ireland’s new mental capacity legislation and the MacCAT-T, identifying the MacCAT-T dimensions of incapacity that are reflected in the legislative definition could also prove useful in validating Ireland’s new legislative test (and, by implication, similar tests in other jurisdictions with similar legislation) and identifying any operational divergences between legal and clinical criteria that might require examination and resolution.

2. Material and methods

2.1. Setting

This research took place in four psychiatric inpatient units in Ireland: the Acute Psychiatry Unit in Tallaght University Hospital, Dublin; the Drogheda Department of Psychiatry, Cresslains, Drogheda, County Louth; St Brigid’s Hospital, Ardee, County Louth; and the Department of Psychiatry, Connolly Hospital Blanchardstown, Dublin. All units provide public inpatient mental health care to adult patients aged 18 years or over. They all care for both voluntary and involuntary patients under the Mental Health Act 2000. At the time of their inspections by the Inspector of Mental Health Services in 2017 (the year in which our study commenced), the Acute Psychiatry Unit in Tallaght University Hospital had 51 inpatients, nine of whom were involuntary (Inspector of Mental Health Services, 2017a); the Drogheda Department of Psychiatry had 44 inpatients, 10 of whom were involuntary (Inspector of Mental Health Services, 2017b); St Brigid’s Hospital in Ardee had 16 inpatients, all of whom were involuntary; and the Department of Psychiatry at Connolly Hospital Blanchardstown had 38 inpatients six of whom were involuntary (Inspector of Mental Health Services, 2017c).

2.2. Participants, recruitment and psychiatry admission status

We recruited inpatients in the four participating psychiatry units from July 2017 to October 2018. For inclusion, a patient had to be an inpatient in one of the four inpatient psychiatry units during the study period; be proficient in the English language; and aged 18 years or over.

We identified patients from inpatient census lists and recruited patients from each of the four units. We included both voluntary and involuntary patients.

As the criteria for mental incapacity according to the Assisted Decision-Making (Capacity) Act 2015 had never previously been used in studies of psychiatric inpatients, a formal sample size calculation was not feasible. A sample size of 215 participants was chosen so that our study would be comparable with, or larger than, previous studies in the field (Caizzi et al., 2005; Owen et al., 2009; Mandrelli et al., 2014, 2013). In addition, 215 participants was an achievable sample size in the study setting divided between the four participating psychiatry units.

2.3. Data collection methodology

The key outcome variable was mental capacity for treatment decisions assessed using the criteria outlined in the Assisted Decision-Making (Capacity) Act 2015. This was then compared with the MacCAT-T sub-scale scores. All assessments were carried out based on the patient’s diagnosis and the treatment they were receiving according to the clinical file, documented by their treating team. Once a patient consented to participate in the study, the researcher gathered relevant information from their clinical file, identified the key treatment decision that the patient faced at that time, and used that decision as the focus for assessing mental capacity for treatment decisions. Researchers used information documented in the clinical file by the treating team and did not provide additional information to patients about the treatment decision they faced.

For each participant, we recorded gender, age, employment status, marital status, ethnicity (Irish or non-Irish), admission status at time of assessment (voluntary or involuntary) and clinical diagnosis derived from each participant’s clinical file, coded using the World Health Organisation’s (WHO) International Classification of Mental and Behavioural Disorders (ICD-10) (WHO, 1992).

Our primary assessment of mental capacity was based on the Assisted Decision-Making (Capacity) Act 2015 which states that ‘a person lacks the capacity to make a decision if he or she is unable (a) to understand the information relevant to the decision; (b) to retain that information long enough to make a voluntary choice; (c) to use or weigh that information as part of the process of making the decision; or (d) to communicate his or her decision (whether by speaking, writing, using sign language, assistive technology, or any other means) or if the implementation of the decision requires the act of a third party, to communicate by any means with that third party’ (Section 3(2)). Each of these four items was rated in a binary fashion (yes/no). In accordance with the 2015 Act, if the patient received a ‘no’ on one or more of these four items, the patient lacked mental capacity for treatment decisions.

The results of this assessment were then compared to the scores from the MacCAT-T, a semi-structured interview that yields scores on four separate scales: (1) understanding of the disorder, its treatment, and associated risks and benefits (rated from 0 to 6, made up of three sub-scales, each rated from 0 to 2); (2) appreciation of the disorder and its treatment (rated from 0 to 4, with two sub-scales, each rated from 0 to 2); (3) reasoning, which assesses the ability to compare alternatives in view of the consequences (rated from 0 to 8, made up of four sub-scales, each rated from 0 to 2): consequential reasoning, comparative reasoning,
generating consequences and logical consistency); and (6) the ability to express a choice (which is rated from 0 to 2) (Grisso et al., 1997; Griss and Applebaum, 1998; Murphy et al., 2018). The four elements of the MacCAT-T are measured on continuous scales with a high degree of inter-rater reliability (ranging between 0.99 for "understanding" and 0.87 for "appreciation") (Grisso et al., 1997; Stumman, 2003). When added together, these scores yield an overall score ranging from 0 to 20, but even if a participant has a high overall MacCAT-T score they may still lack mental capacity if they perform poorly on a single subscale.

In the present study, all ratings were performed by a trained clinician with more than five years training in psychiatry and membership of the Royal College of Psychiatrists (AC), consistent with established methodology (Ovum et al., 2011; Murphy et al., 2018) and with ongoing supervision by another trained assessor (BDK). For additional quality control, there were joint assessments of certain patients with another trained clinician, also with more than five years training in psychiatry and membership of the Royal College of Psychiatrists (BM), and also under supervision (BDK).

2.4. Consent procedure

For this study, it was imperative that all eligible patients were approached and invited to participate regarding level of mental capacity, in order to gain a complete picture of the prevalence of mental incapacity and avoid selection bias. To achieve this, we developed a detailed consent procedure:

- Any patient (with or without mental capacity) who indicated in any way that they did not wish to participate was omitted from the study.
- Written informed consent was obtained from patients with mental capacity to provide such consent.
- For patients who lacked mental capacity to consent to the study, we developed a next-of-kin/relative information leaflet and assent form. As there is a legal presumption of mental capacity in Ireland, it was only in cases where we had prima facie reasons to believe that the patient lacked mental capacity to consent to the study that we could question the presumption of mental capacity to participate. In these cases, we obtained assent from their next-of-kine or relative when feasible. On receiving such assent, we proceeded with our assessments provided the patient assented and did not object at any point.
- In these cases, we sought 'deferred consent' if the patient regained mental capacity during the study period.
- If patients who lacked mental capacity to consent to the study and there was no next-of-kin or relative named or available, we proceeded with our assessments provided the patient assented and did not object. In these cases, we sought 'deferred consent' if the patient regained mental capacity during the study period.
- If, on regaining mental capacity, any patient had declined to provide such 'deferred consent', we would have destroyed the data relating to that patient, but this circumstance did not arise in the study.

2.5. Ethical approval

This study received ethical approval from the Tallaght University Hospital/St James’ Hospital Joint Research Ethics Committee, Dublin; the health Service Executive North East Area Research Ethics Committee, Fective Street, Kells, County Meath; and the Royal College of Surgeons in Ireland Research Ethics Committee, 121 St Stephen’s Green, Dublin. This was a study of usual practice using existing routine data and administration of an interview to evaluate current mental health care practice. It was performed in accordance with appropriate data protection and research regulations and the Declaration of Helsinki (World Medical Association, 2008). Data were irreversibly anonymized, encrypted and stored on a password-protected research computer in a locked research office. Patient confidentiality was protected at all times.

2.6. Statistical analysis

Data were stored, described and analysed using IBM SPSS Statistics. 23. Student t test was used to compare scores on subscales of the MacCAT-T between patients who had mental capacity for treatment decisions according to the Assisted Decision-Making (Capacity) Act 2015 and those who did not. We generated a multi-variable binary logistic regression model with mental capacity for treatment decisions as per the 2015 Act as the dependent variable and gender, age, marital status, employment status, ethnicity, admission status, primary diagnosis and psychiatric unit of admission as the independent variables.

We tested for multicollinearity, which is when two or more variables are closely related to each other that the model cannot reliably distinguish the independent effects of each. For this, we calculated a 'tolerance value' for each independent variable; tolerance values below 0.25 indicate possible multicollinearity, and tolerance values below 0.10 indicate significant problems with multicollinearity (Kut, 1990).

There were no missing data.

3. Results

Two hundred and fifteen hospital patients participated in the study with a mean age of 46.2 years (standard deviation (SD): 17.1). 41.9% (n = 90) were female and 58.1% (n = 175) of Irish ethnicity. Majorit were employed (64.2%; n = 138) and voluntary (81.9%; n = 176) rather than involuntary patients (18.1%; n = 39). Schizophrenia and related disorders (42.8%; n = 92) were the most common diagnoses followed by affective (mood) disorders (36.7%; n = 76). People with psychoactive substance misuse disorders (including alcohol) (7.9%; n = 17), neurotic anxiety disorders (7.0%; n = 15), personality disorders (3.3%; n = 7) and other conditions (2.8%; n = 5) formed smaller portions of the participants.

Seventy-five (34.9%) participants lacked mental capacity for treatment decisions using the criteria in the Assisted Decision-Making (Capacity) Act 2015. Multi-variable binary logistic regression analysis showed that patients who lacked mental capacity under the 2015 Act were more likely to be, in order of strength of association, involuntary patients; unemployed; diagnosed with schizophrenia or a related disorder; and older (p < 0.05 in all cases; Table 1). Together, these factors accounted for 40.7% of the variance in mental capacity between participants. There was no statistically significant association between mental capacity and gender, marital status, ethnicity or psychiatric unit to which the patient was admitted. All tolerance values were greater than 0.25 indicating no problems with multicollinearity in the model.

A small minority of four patients (5.3%) met all four criteria for mental incapacity according to the 2015 Act; i.e. they were unable to understand the relevant information, retain it, weigh it up and communicate a decision. Among the 75 patients who lacked mental capacity, 48 (64.0%) were unable to understand or retain the information; 75 (100%) were unable to weigh up the information; and four (5.3%) were unable to communicate a decision.

The mean MacCAT-T score for the entire sample (n = 215) was 14.13 (SD: 6.34). The distribution of total MacCAT-T scores was normal (skewed to the left) with a median value of 17.6 (inter-quartile range: 7.65-19.5). Mean MacCAT-T score among patients who had mental capacity according to the 2015 Act was significantly higher than that for those who lacked mental capacity (14.53, SD 1.58 versus 5.93, SD 2.62; t = 43.874, p < 0.001) but it should be noted that even if a participant had a high overall MacCAT score they could still lack mental capacity if they performed poorly on a single subscale. Patients with mental capacity according to the 2015 Act, however, scored significantly higher on all subscales of the MacCAT-T compared to those without capacity (p < 0.01 in all cases; Table 2).

No patient was deemed to lack mental capacity solely owing to
Table 1
Psychiatry hospital inpatients in Ireland who have mental incapacity for treatment decisions was assessed. Values are numbers (percentage) unless stated otherwise.

<table>
<thead>
<tr>
<th>Variables</th>
<th>All patients (n = 215)</th>
<th>Mental capacity status as per the Assisted Decision-Making (Capacity) Act 2015</th>
<th>Binary logistic regression analysis of mental capacity status as per the Assisted Decision-Making (Capacity) Act 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Has mental capacity</td>
<td>Lacks mental capacity</td>
<td>β</td>
</tr>
<tr>
<td></td>
<td>(n = 146)</td>
<td>(n = 70)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>90 (41.9)</td>
<td>64 (45.3)</td>
<td>26 (18.4)</td>
</tr>
<tr>
<td>Men</td>
<td>125 (58.1)</td>
<td>75 (54.3)</td>
<td>40 (28.5)</td>
</tr>
<tr>
<td>Mean (SD) age (years)</td>
<td>46.22 (17.4)</td>
<td>45.94 (18.62)</td>
<td>45.16 (13.01)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>159 (74)</td>
<td>110 (71.4)</td>
<td>59 (40.7)</td>
</tr>
<tr>
<td>Married</td>
<td>56 (26.6)</td>
<td>35 (21.0)</td>
<td>21 (14.3)</td>
</tr>
<tr>
<td>Divorced or separated</td>
<td>15 (7.7)</td>
<td>12 (8.4)</td>
<td>3 (4.4)</td>
</tr>
<tr>
<td>Widowed</td>
<td>10 (4.7)</td>
<td>7 (5.0)</td>
<td>3 (4.4)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>77 (35.8)</td>
<td>62 (43.8)</td>
<td>15 (21.4)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>138 (64.2)</td>
<td>72 (56.2)</td>
<td>66 (81.6)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irish</td>
<td>147 (68)</td>
<td>125 (86.5)</td>
<td>22 (31.4)</td>
</tr>
<tr>
<td>Non-Irish</td>
<td>68 (32)</td>
<td>31 (45.6)</td>
<td>37 (55.6)</td>
</tr>
<tr>
<td>Admission Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary</td>
<td>175 (81.9)</td>
<td>127 (97.9)</td>
<td>47 (67.1)</td>
</tr>
<tr>
<td>Involuntary</td>
<td>40 (18.1)</td>
<td>17 (12.1)</td>
<td>23 (32.9)</td>
</tr>
<tr>
<td>Primary diagnosis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia and related disorders</td>
<td>92 (42.8)</td>
<td>57 (39.6)</td>
<td>35 (50.0)</td>
</tr>
<tr>
<td>Affective disorders</td>
<td>70 (32.7)</td>
<td>63 (45.3)</td>
<td>17 (24.6)</td>
</tr>
<tr>
<td>Psychosis</td>
<td>17 (7.9)</td>
<td>14 (10.0)</td>
<td>3 (4.4)</td>
</tr>
<tr>
<td>Personality disorders</td>
<td>15 (7.0)</td>
<td>13 (9.9)</td>
<td>2 (2.9)</td>
</tr>
<tr>
<td>Neurotic disorders</td>
<td>35 (16.2)</td>
<td>27 (20.0)</td>
<td>8 (11.4)</td>
</tr>
<tr>
<td>Other disorders</td>
<td>5 (2.3)</td>
<td>4 (2.9)</td>
<td>1 (1.4)</td>
</tr>
<tr>
<td>Psychiatry unit in which the person was admitted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tallaght Adult Psychiatry Unit</td>
<td>62 (29.0)</td>
<td>37 (26.4)</td>
<td>25 (35.7)</td>
</tr>
<tr>
<td>Drogheda Department of Psychiatry</td>
<td>59 (27.4)</td>
<td>39 (27.5)</td>
<td>20 (28.6)</td>
</tr>
<tr>
<td>St Brigid’s Hospital, Ardee</td>
<td>13 (6)</td>
<td>6 (4.3)</td>
<td>7 (9.3)</td>
</tr>
<tr>
<td>Blanchardstown Department of Psychiatry</td>
<td>81 (37.7)</td>
<td>58 (41.4)</td>
<td>23 (33.0)</td>
</tr>
</tbody>
</table>

Note.
* Binary logistic regression analysis of mental capacity for treatment decisions with mental capacity status (yes/no) as per the Assisted Decision-Making (Capacity) Act 2015 at the dependent variable $r^2 = 0.70$.

This paradoxical situation is of particular concern. Ireland’s Mental Health Act 2001 primarily legislates for involuntary admission and the definition of voluntary patient does not require mental capacity for treatment decisions. There is, therefore, an urgent need for legislative clarity regarding ‘voluntary’ psychiatric admission and mental capacity, to address in particular the situation of the ‘voluntary’ patient who lacks decision-making capacity in relation to admission and treatment but passively acquiesces to both.

Ironically, patients involuntarily admitted under the Mental Health Act 2001 benefit from free, automatic legal representation, free, independent second opinion, and automatic external review through mental health tribunals, but there are no equivalent provisions to protect the ‘voluntary’ patient. The Assisted Decision-Making (Capacity) Act 2015 usefully reiterates that there is a presumption of mental capacity for all, but there is also a need to ensure that voluntary inpatients who lack mental capacity are identified in order to better promote their rights and dignity (see Section 4.3 also).

4. Discussion

4.1. Mental incapacity for treatment decisions

We found that over one third (34.9%) of psychiatry inpatients lacked the mental capacity for treatment decisions according to Ireland’s legal criteria for mental incapacity in the Assisted Decision-Making (Capacity) Act 2015. This high rate of mental incapacity highlights the underlying need for Ireland’s new mental capacity legislation and emphasises the importance of timely commencement of the 2015 Act, which has yet to occur. This finding is consistent with studies from other jurisdictions which report similar rates of mental incapacity among psychiatry inpatients and highlight the importance of devoting renewed attention to mental incapacity in psychiatry settings (Olka et al., 2007; Lepping et al., 2015).

4.2. Mental incapacity in voluntary psychiatry inpatients

Over half (52.6%) of psychiatry inpatients who lacked mental capacity in our study were voluntary as opposed to involuntary patients.
It is possible that these patients did not have that mental capacity on admission but had regained it by the time of our study, or that they were due for consultant review and potential revocation of their involuntary admission order in the days following our assessment. As this was a cross-sectional study, however, we did not have any other assessments to establish mental capacity at other time-points and so could not eliminate these possibilities to explain our finding. Future research could usefully do so.

In 2015, a review of Ireland's Mental Health Act 2001 considered the issue of whether criteria for involuntary admission should include a ‘capacity test’ but decided instead that mental capacity should be assessed under the Assisted Decision-Making (Capacity) Act 2015 specifically to assess for involuntary admission under the Mental Health Act 2001. The Expert Group (2015) suggested that, if an admission of a patient, the admitting mental health professional form the view that the person may lack capacity to understand and give his/her informed consent to the proposed admission, they must refer the person for formal capacity assessment to be completed within 24 h.

If, following the capacity assessment, it is deemed that a person has capacity to admit themselves, a voluntary admission may proceed. If it is deemed that they need support to understand, to make, or to convey their decision, that support must be provided to assist in the voluntary admission process (using the mechanisms of the 2015 Act: i.e. decision-making assistants, co-decision makers, etc.). If it is deemed that they do not have capacity in relation to this decision, and the person has a mental illness, they may only be admitted on an involuntary basis provided they satisfy all the criteria for detention. A person who lacks capacity and has a mental illness but does not fulfil the criteria for detention may, in specified circumstances, be admitted as an ‘intermediate’ patient (which would be a new category of patient).

An ‘intermediate’ patient will not be detained but will have the review mechanisms and protections of a detained person. Such patients would not have the capacity to consent to admission and equally do not fulfil the criteria for involuntary detention. For decision-making, the supports of the Assisted Decision-Making (Capacity) Act 2015 would be required for ‘intermediate’ patients.

While these recommendations from the Expert Group have yet to be acted upon, they were designed to address the complex relationship between mental incapacity and psychiatry admission status, ensuring that patients who lack mental capacity but are compliant with treatment have their rights protected. It is hoped that keeping mental capacity assessments separate to involuntary admission criteria will also help ensure that criteria for involuntary admission are not applied discriminatorily to people who lack mental capacity, consistent with the Convention on the Rights of Persons with Disabilities (CRPD).

### 4.4 Clinical and legal criteria for mental incapacity

We found that, among psychiatry inpatients, assessments of mental incapacity for treatment decisions based on Ireland’s Assisted Decision-Making (Capacity) Act 2015 (i.e. legal criteria) accord very closely with assessments using the MacCAT-T (i.e. clinical criteria). This suggests that the MacCAT-T could reasonably be used both in clinical practice and for assessments of whether or not patients meet the legal criteria for mental incapacity. The MacCAT-T is, however, considerably longer than the legal criteria for mental incapacity outlined in Irish legislation and similar legislation in other jurisdictions (e.g. England and Wales).

While this permits a more nuanced exploration of different aspects of mental incapacity with the MacCAT-T, and also possibly helps deepen therapeutic understandings, the MacCAT-T is more time-consuming than the legislative test and also requires training.

It is also worth noting that, despite the similarity in outcomes, the MacCAT-T will not necessarily always accord with legal criteria in every way: for example, the MacCAT-T includes ‘appreciation’ in its criteria while the Assisted Decision-Making (Capacity) Act 2015 does not. Nonetheless, we still recommend use of the MacCAT-T in clinical
practice once it is used following appropriate training, with an awareness of its strengths and limitations, and with an understanding of its relationship with legal criteria (which, in Ireland at least, is a very close relationship).

4.5. Strengths and limitations of the present study

This is the first quantitative study of mental incapacity to use the new criteria outlined in the Assisted Decision-Making (Capacity) Act 2015 among psychiatry inpatients in Ireland. It is also, to our knowledge, the first to compare assessments of mental incapacity in psychiatry inpatients based on a legal definition of mental incapacity with assessments based on structured clinical assessment (the MacCAT-T). Our study also included both voluntary and involuntary patients and is comparable in size with leading studies in the broader field (Cain et al., 2015; Ovres et al., 2009; Mandarrelli et al., 2014, 2015), thus optimising generalisability. In addition, our post-hoc power calculation indicated that our sample of 176 voluntary and 39 involuntary patients had adequate power to detect the differing prevalence of mental incapacity across these groups.

Limitations include the fact that our analysis was cross-sectional and did not take account of changes in mental capacity over time; this was to establish what proportion of hospital inpatients lack mental capacity at a given time. We are, however, aware that in clinical practice non-urgent treatment decisions may be postponed if there is potential for the patient to regain mental capacity (as recommended in the 2015 Act). Therefore, a study involving repeated assessments of mental capacity over time would be a valuable addition to the field.

We did not measure cognitive performance, which is important in the MacCAT-T assessment (Keres and Vollmann, 2004; Mandarrelli et al., 2012). However, to reduce bias, we included both voluntary and involuntary patients, studied four psychiatry inpatient units, and developed a novel inclusive consent procedure. We used the same rater for both clinical and legal assessments of mental capacity in order to facilitate simultaneous assessment (as mental capacity can fluctuate over time) and in order to reflect clinical practice (where it is uncommon for the same doctor to perform both clinical and legal assessments of mental capacity, although this is, arguably, not ideal). The use of a single rater for both assessments, however, had the potential to introduce assessment bias, and while we provided careful training and supervision to minimise this possibility, it is possible that residual bias remained.

5. Conclusions

Among psychiatry inpatients, assessments of mental incapacity for treatment decisions based on Ireland’s Assisted Decision-Making (Capacity) Act 2015 accord very closely with assessments using clinical criteria (in this study, the MacCAT-T). This finding supports the usefulness of Ireland’s new legal text and similar text in other jurisdictions with comparable legislation (e.g. England and Wales). Once Ireland’s 2015 Act is commenced in practice, it would be useful to study this matter again, with assessments of mental capacity performed over time, as recommended in the legislation, rather than at just one time-point.

The high rate of mental incapacity in our study (34.9%) highlights the need to commence Ireland’s new legislation as a timely matter. Preparation of relevant codes of practice is already underway. Throughout the process of implementation, it is imperative that rights of psychiatry inpatients, both voluntary and involuntary, who lack mental capacity for treatment decisions are protected. While the rights of involuntary patients are already protected to a significant degree through legal representation, independent second opinions and mental health tribunals, those who are voluntary and lack mental capacity are not afforded similar protections. They should be.

Finally, as the rate of mental incapacity among psychiatry inpatients in our study is broadly consistent with those in other jurisdictions, our findings support the more general need to pay greater attention to these issues in legislation and practice at both national and international levels. Resource planning and development of consent protocols for patients who lack mental capacity are clearly essential in order protect autonomy and rights, and provide better, more patient-centred care to all.

Funding

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Conflict of interest

BDK was a member of the Expert Group on the Review of the Mental Health Act 2003 (2015).

Acknowledgements

The authors are very grateful to the editor and reviewers for their comments and suggestions.

Appendix: Mental capacity assessment tools

This study assessed mental capacity for treatment decisions using two assessment tools:

- Section 5(2) of Ireland’s Assisted Decision-Making (Capacity) Act 2015, which is freely accessible at this link: http://www.irishstatutebook.ie/2015/act/64/section/5/ enacte/.

- The MacArthur Competence Assessment Tool for Treatment (MacCAT-T), which is accessible at this link: https://www.psyrex.com/MacArthur-Competence-Assessment-Tool-for-Treatment-MacCAT-T_p_169.html

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Carley, A., Murphy, R., Fleming, S., Kelly, J., 2019. App. psychiatry admission status and mental capacity for treatment decisions. [in progress].


Impacter of mental Health services. 2017. Approved centre Inspection Report 2017. St. lour’s Ward, St. raphael Hospital, St. lour’s Road, Ardee, County Louth. Mental Health Commission, Dublin.

Impacter of mental Health services. 2017. Approved centre Inspection Report 2017. St. lour’s Ward, St. raphael Hospital, St. lour’s Road, Ardee, County Louth. Mental Health Commission, Dublin.


Appendix 14: Capacity to consent to treatment in psychiatry inpatients – a systematic review

INTRODUCTION

Regarding psychiatry inpatients, treatment decisions are typically made by the responsible clinician, and patients are not involved in the decision-making process. In the past two decades, however, there has been increasing acceptance of the need to maintain an individual’s capacity to participate in treatment decisions as an essential condition to being a fully responsible adult. It is based on the principle of autonomy, and the tenets of informed consent and patient safety. A systematic review of the literature was conducted to determine the prevalence of capacity to consent to treatment in psychiatry inpatients.

METHOD

Methods

A systematic review was conducted to address the following question: What is the prevalence of capacity to consent to treatment in psychiatry inpatients? This review is a subset of the previous review by B. D. Kelly et al. (2013).

RESULTS

In total, 33 studies were identified. These studies were conducted between 1996 and 2017 to assess capacity to consent to treatment in psychiatry inpatients. The prevalence of capacity to consent to treatment in psychiatry inpatients ranged from 7.7% to 42%, and among voluntary patients ranged from 29% to 97.9%. Two reasons for the difference are that there were two papers that showed positive correlations between decision-making capacity and scores on the MacArthur Competence Assessment Tool for Treatment. Two papers showed no such correlation.

CONCLUSIONS

Not all voluntary psychiatry inpatients possess mental capacity and many involuntary patients do. This paradox needs to be clarified and resolved in mental health legislation, supported decision-making can help with this task.

KEY POINTS

- Legislative changes for mental capacity are taking place in many jurisdictions.
- This is an important human rights issue for many people, including psychiatry inpatients.
- In our review, we found that the prevalence of decision-making capacity varies between 5% and 83% in psychiatry inpatients.
- Not all psychiatry inpatients have decision-making capacity.
- Many involuntary inpatients have mental capacity to make decisions.
- Supported decision-making can help those with impairments in their mental capacity.
Method

Eligibility

We included quantitative studies published in English, which assessed decision making capacity for treatment decisions among patients aged 18 years or over who were admitted to inpatient psychiatric units or hospitals. Studies could use vignettes or real treatment decisions and could measure decision making capacity using binary judgement (e.g., clinicians’ assessments) or a dimensional capacity assessment tool (e.g., MacCAT-T) or both. Studies that included comparison populations (e.g., medical inpatients) were included, provided the results for psychiatry inpatients were presented separately. Studies were excluded if they were solely qualitative in nature, included anyone under the age of 18 years, or only those over 65, focused exclusively on people with intellectual disabilities, with organic disorders or in forensic settings, or included capacity assessments in community or out-patient populations, or assessed decision making capacity for medical as opposed to psychiatric treatment.

Search

A systematic search of Civid MEDLINE, PsycINFO and Embase was performed. Following consideration of all terms to maximise sensitivity and specificity, agreement was reached on the following search terms: (mental capacity OR ‘mental incapacity’ OR ‘mental competence’ OR ‘decision making’ OR ‘informed consent’) AND (‘mental illness’ OR ‘mental disorder’ OR ‘mental health’) AND (‘inpatient’ OR ‘hospitalisation’ OR ‘hospitalised patients’ OR ‘nursing home’ OR ‘psychiatric hospital’ OR ‘psychiatric ward’). Where required, these search terms were adapted to fit the MeSH criteria of the data bases. An example of the database specific full search using Embase is included in the Supplementary material.

Before data extraction, the study was registered with PROSPERO (an international prospective register of systematic reviews) on 14 July 2020 to provide a permanent record of key features of the protocol (ID CRD42020180284). The search was completed on 8 November 2020, with results exported to Endnote X9 and then Covidence, a tool for screening and data extraction in systematic reviews (www.covidence.org). This was used by two independent reviewers (AC and CW) to identify studies that met inclusion criteria. The reviewers applied a double screening on titles and abstracts. If a reviewer was unsure as to whether an article fulfilled inclusion criteria based on abstract review only, the full paper was reviewed. After screening, papers were read in full and excluded if they did not meet criteria. Discrepancies between the two independent reviewers were resolved by a third reviewer (BD). Bibliographies of all studies that met the criteria for inclusion were hand searched to identify any further articles.

Analysis

Data were extracted by AC using a Covidence form which specified the format of assessment, tool used to assess mental capacity and sub-score data where available, prevalence of mental capacity, and any association between decision making capacity and demographic or clinical variables was noted.

Results

Study selection

Overall, 5,552 references were imported from the three databases; for screening, 911 duplicates were removed, and 4,641 studies...
were screened against title and abstract (Figure 1). Of these, 4,575 studies were excluded and 66 were assessed for full text eligibility. A further 30 were excluded due to wrong patient population, wrong study design or wrong outcomes. Four articles were in the wrong language, despite having abstracts in English. This left 36 papers to be included. The reviewers hand-searched bibliographies which sourced an additional 42 papers of which nine met inclusion criteria. This gave a total of 45 papers for inclusion. Some studies had published more than one paper on the same population; e.g., Curley and colleagues (Curley, Murphy, Fleming et al. 2019; Curley et al. 2019a, 2019b) and Cairns and colleagues (Cairns et al. 2005a, 2005b); these papers were grouped together.

Quality analysis
Some previous reviews in this area were unable to perform quality or risk of bias assessments owing to the heterogeneity of studies included (Okai et al. 2007; Spencer et al. 2011). While we noted similar issues, we nonetheless performed quality assessments using the relevant checklist from the Critical Appraisal Skills Program (CASP). We used the CASP Diagnostic Study Checklist because this provided the best fit with the studies included in our review (diagnosing mental capacity or incapacity). We chose the MacCAT-T as the reference standard because it has become the gold standard in this field (Grasso et al. 1997; Murphy et al. 2019). The CASP Diagnostic Study Checklist comprises 12 questions which cover three broad areas concerning the validity of the results, content of results and assessing local benefit (CASP 2019). As the checklists were designed for educational purposes, no scoring system is suggested. We rated the studies as high, medium, or low quality (Table 2). High compliance with the checklist indicated lower risk of bias and higher validity (Flunkett and Kelly 2021). We were looking for mental capacity to be assessed using a validated tool (ideally the MacCAT-T) and for a clinical or legal binary judgement to be compared to this validated tool. However, only a small number of studies used two assessment means. Legal criteria alone are not validated tools, so studies using these criteria alone were placed in the low quality category.

Study characteristics
We identified 36 studies across 48 papers. Table 1 summarises methods used to assess mental capacity, with some studies using more than one method. Eleven studies used the MacCAT-T in its original context to give dimensional scores only (Grasso et al. 1997; Lapid et al. 2003; Lapid et al. 2004; Wong et al. 2005; Konon et al. 2005; Howo et al. 2005; Mandarelli et al. 2012; Bilanakis et al. 2013; Bilanakis et al. 2017; Curley, Murphy, Fleming et al. 2019; Ralstaid et al. 2021). Thirteen studies used cut off scores on the MacCAT-T or another assessment tool, such as the Competency Questionnaire (CQ) or Hopkins Competency Assessment Test (HCAT), although multiple different cut off scores and methods were used (Both et al. 1982; Hoffman and Siniscalco 1992; Jones et al. 1998; Kitamura et al. 1998; Mohamed et al. 1999; Paul and Oyebode 1999; Vollmann et al. 2003; Fraquas et al. 2007; Di and Cheng 2013; Aydin Er and Sehiralti 2014; Mandarelli et al. 2012; Mandarelli et al. 2014; Curley et al. 2019a).

Twenty studies provided binary estimates of mental capacity. In these studies, the estimated proportions of psychiatry patients with mental capacity ranged from 5% (Paul and Oyebode 1999) to 83.7% (Jones et al. 1998). Due to the heterogeneity of study populations and differing methods of assessing mental capacity, it was not possible to combine the results mathematically.

Three papers provided categorical assessments of mental capacity (as full, partial and lacking), in order to provide more clinically applicable assessments (Hoffman and Siniscalco 1992; Aydin Er and Sehiralti 2014; Curley et al. 2019a); nine studies used the
<table>
<thead>
<tr>
<th>Study</th>
<th>Country of study</th>
<th>Format of assessment</th>
<th>Test used</th>
<th>n (Diagnosis)</th>
<th>Percentage with mental capacity</th>
<th>Assessment of quality</th>
<th>Time of assessment and notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Australia</td>
<td>Dimensional</td>
<td>Measuring understanding of decision-making (using vignettes)</td>
<td>100 (not specified)</td>
<td>99% achieved scores 'Vedent' indicating good comprehension.</td>
<td>47.6%</td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
</tr>
<tr>
<td>2.</td>
<td>Australia</td>
<td>Dimensional</td>
<td>MacCAT-T (Judge version)</td>
<td>65 (33 mood disorder, 32 anxiety disorder)</td>
<td>33.3% using MacCAT-T high T cut-off.</td>
<td><strong>47.6%</strong></td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
</tr>
<tr>
<td>3.</td>
<td>Canada</td>
<td>Clinical interview, binary judgment</td>
<td>OS (Physician Judgement)</td>
<td>98 (61 postoperative, 37 depression)</td>
<td>59%</td>
<td>47.6%</td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
</tr>
<tr>
<td>4.</td>
<td>England</td>
<td>Clinical interview based on Code of Practice of the Mental Health Act, 1983 and British Medical Association Guide for second assessment based on four domains in the Mental Capacity Act, 2005</td>
<td>MacCAT-T (Judge version)</td>
<td>96 (22 postoperative, 74 depression)</td>
<td>47.6%</td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Greece</td>
<td>Dimensional, no cut-off</td>
<td>MacCAT-T (Judge version)</td>
<td>39 (25 postoperative, 14 depression)</td>
<td>47.6%</td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Greece</td>
<td>Dimensional</td>
<td>MacCAT-T (Judge version)</td>
<td>72 (24 postoperative, 48 depression)</td>
<td>47.6%</td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>UK</td>
<td>Binary judgment and dimensional</td>
<td>OS and clinical judgment</td>
<td>22 (11 postoperative, 11 depression)</td>
<td>47.6%</td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
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<td>8.</td>
<td>UK</td>
<td>Binary judgment guided by MacCAT-T</td>
<td>Binary judgment</td>
<td>66 (50 postoperative, 16 depression)</td>
<td>47.6%</td>
<td>Assessed at the time of or following admission to hospital. All patients consented to voluntary hospitalization. 99% of patients achieved scores that indicated good comprehension. Assessments made following at least 6 days of hospitalization. Assessed decision-making competence to consent to treatment. 99.6% of patients were voluntary.</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Patients examining from study</td>
<td>Country of study</td>
<td>Format of assessment</td>
<td>Tool used</td>
<td>n (diagnosis)</td>
<td>Percentage self-identified capacity</td>
<td>Assessment of quality</td>
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<td>8. Cullen, Murphy, Fleming et al. 2019</td>
<td>Cullen, Murphy, Fleming et al. 2019, Cullen et al. 2019</td>
<td>Ireland</td>
<td>Dimensional, conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>216</td>
<td>54% had mental capacity, 46% had full mental capacity</td>
<td>Medium</td>
</tr>
<tr>
<td>9. van Deinse et al. 2019</td>
<td>van Deinse et al. 2019</td>
<td>Netherlands</td>
<td>Dimensional, conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>125</td>
<td>60% had mental capacity, 50% had full mental capacity</td>
<td>Medium</td>
</tr>
<tr>
<td>10. D'Andrea and Cheng 2015</td>
<td>D'Andrea and Cheng 2015</td>
<td>China</td>
<td>Dimensional, conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>125</td>
<td>60% had mental capacity, 50% had full mental capacity</td>
<td>Medium</td>
</tr>
<tr>
<td>11. Fernández et al. 2017</td>
<td>Fernández et al. 2017</td>
<td>Ireland</td>
<td>Dimensional, conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>125</td>
<td>60% had mental capacity, 50% had full mental capacity</td>
<td>Medium</td>
</tr>
<tr>
<td>12. Feugues et al. 2017</td>
<td>Feugues et al. 2017</td>
<td>Spain</td>
<td>Dimensional, conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>125</td>
<td>60% had mental capacity, 50% had full mental capacity</td>
<td>Medium</td>
</tr>
<tr>
<td>13. Gómez et al. 1997</td>
<td>Gómez et al. 1997</td>
<td>Spain</td>
<td>Dimensional, conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>125</td>
<td>60% had mental capacity, 50% had full mental capacity</td>
<td>Medium</td>
</tr>
<tr>
<td>14. Glass &amp; Applebaum 1995</td>
<td>Glass &amp; Applebaum 1995</td>
<td>USA</td>
<td>Dimensional, conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>125</td>
<td>60% had mental capacity, 50% had full mental capacity</td>
<td>Medium</td>
</tr>
<tr>
<td>15. Hoffman and Silverman 1992</td>
<td>Hoffman and Silverman 1992</td>
<td>Canada</td>
<td>Conceptual, full, verbal and non-verbal, depression, anxiety, capacity, capacity, disability</td>
<td>MacCAT-T</td>
<td>125</td>
<td>60% had mental capacity, 50% had full mental capacity</td>
<td>Medium</td>
</tr>
</tbody>
</table>

[continued]
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<tr>
<th>Study</th>
<th>Source</th>
<th>Country of study</th>
<th>Format of assessment</th>
<th>Tool used</th>
<th>n (diagnosis)</th>
<th>Percentage with mental capacity</th>
<th>Assessment of quality</th>
<th>Time of assessment and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Kwon et al. (2005)</td>
<td></td>
<td>Korea</td>
<td>Dimensional</td>
<td>HMCATT</td>
<td>321</td>
<td>Schizophrenia n = 44; Bipolar affective disorder n = 20; SCH n = 24</td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td>17. Jones et al. (1998)</td>
<td>USA</td>
<td>USA</td>
<td>Cut-off: Score &gt; 60 on the HCAT</td>
<td>HCAT Consensus</td>
<td>43</td>
<td>not specified</td>
<td>85.0%</td>
<td>Medium</td>
</tr>
<tr>
<td>19. Okamura et al. (1998)</td>
<td>Japan</td>
<td>Japan</td>
<td>Structured interview for Consensus Diagnostic Assessment</td>
<td>HCAT</td>
<td>25</td>
<td>Major depressive disorder n = 10; Bipolar affective disorder n = 10; Other (schizophrenia n = 10)</td>
<td>30%</td>
<td>Medium</td>
</tr>
<tr>
<td>19. Kwon et al. (2005)</td>
<td>Korea</td>
<td>Korea</td>
<td>Dimensional</td>
<td>HMCATT</td>
<td>36</td>
<td>Bipolar affective disorder n = 10</td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td>21. Mandale et al. (2013)</td>
<td>Italy</td>
<td>Italy</td>
<td>Dimensional</td>
<td>HMCATT</td>
<td>49</td>
<td>Schizophrenia n = 20; Bipolar affective disorder n = 15; Other (schizophrenia n = 5)</td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td>22. Mandale et al. (2014)</td>
<td>Italy</td>
<td>Italy</td>
<td>Dimensional</td>
<td>HMCATT</td>
<td>49</td>
<td>Bipolar affective disorder n = 10; Schizophrenia n = 10; Other (schizophrenia n = 10)</td>
<td>60.0%</td>
<td>Medium</td>
</tr>
<tr>
<td>23. Mandale et al. (2016)</td>
<td>Italy</td>
<td>Italy</td>
<td>Dimensional</td>
<td>HMCATT</td>
<td>62</td>
<td>Bipolar affective disorder n = 20; Schizophrenia n = 20; Other (schizophrenia n = 20)</td>
<td>32%</td>
<td>Medium</td>
</tr>
<tr>
<td>Study</td>
<td>Papers examining from study</td>
<td>Country of study</td>
<td>Format of assessment</td>
<td>Tool used</td>
<td>n (Diagnosis)</td>
<td>Percentage with mental capacity</td>
<td>Assessment of quality</td>
<td>Time of assessment and Notes</td>
</tr>
<tr>
<td>-------</td>
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<td>-----------------------------</td>
</tr>
<tr>
<td>24.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>Guen et al., 2009; Guen et al., 2008;</td>
<td>UK</td>
<td>Case-controlled study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
four factor legal criteria for mental capacity, as set out in Mental Capacity Act, 2005 (England and Wales) and Assisted Decision Making (Capacity) Act, 2015 (Ireland) to give a binary assessment of mental capacity (Cairns et al. 2005a; Cairns et al. 2005b; Beckett and Chaplin 2006a; Owen et al. 2008; Owen, David et al. 2009; Owen, Summeler 2009; Spencer et al. 2018; Curley et al. 2019b; Tor et al. 2020).

Some, but not all, papers commented on the precise decision for which capacity was assessed, e.g., to consent to treatment or to ECT (Table 1).

Studies that used two forms of assessment

Four studies used both the MacCAT T and a legal binary outcome in the same populations (Cairns et al. 2005a; Owen et al. 2008; Spencer et al. 2018; Curley et al. 2019b); two papers used both the MacCAT T and a clinical assessment, giving a binary outcome (Vollmann et al. 2003; Fernández et al. 2017); one paper used both the MacCAT T and a clinical assessment giving a categorical outcome (Aydin Er and Sehribalı 2014); one paper used both the CO and a binary clinical assessment of mental capacity (Billick et al. 1996), and one paper used both the CS and a binary clinical assessment of competency (Bian et al. 1996).

Only two studies showed specific correlation between clinical assessment based on legal criteria of decision-making capacity and scores on MacCAT T (Cairns et al. 2005a; Curley et al. 2019b). One study showed significant positive correlation between the MacCAT T and binary clinical assessment (Fernández et al. 2017), while others used the MacCAT T to guide binary judgement (Cairns et al. 2005a; Owen et al. 2008; Owen, David et al. 2009; Owen et al. 2013; Spencer et al. 2018). Aydin Er and Sehribalı showed no correlation between MacCAT T and the judgement evaluation carried out by physicians, nurses and relatives (Aydin Er and Sehribalı 2014). Vollmann and colleagues reported that using the MacCAT T with a cut-off point for binary assessment of capacity indicated that substantially more patients had impaired competency, compared to clinical assessment (Vollmann et al. 2003). Billick and colleagues used the CS and binary clinical assessment to determine competency to consent to psychiatric hospitalisation and treatment (Billick et al. 1996). The CO was validated by comparing results to a blind forensic clinical interview. The researchers concluded that a CO score of >7 would be categorised as competent; ≤5 incompetent, and between 5 and 7 would require further clinical review.

Studies of admission status and mental capacity

Eight papers provided separate results for decision-making capability in patients who were voluntarily and involuntarily admitted (Table 2). The prevalence of mental capacity in voluntary inpatients ranged from 29% (Beckett and Chaplin 2006) to 97.9% (Curley et al. 2019b). It is worth noting that the study by Beckett and Chaplin evaluated only patients with acute mania (Beckett and Chaplin 2006). The prevalence of decision making capacity in patients admitted on an involuntary basis ranged from 7.2% (Curley et al. 2019b) to 42% (Beckett and Chaplin 2006). All studies, apart from Beckett and Chaplin (Beckett and Chaplin 2006), showed lower rates of mental capacity in their involuntary inpatient populations. Beckett and Chaplin (Beckett and Chaplin 2006) and Billick and colleagues (Billick et al. 1996) found no association between mental capacity and admission status, but most other studies did (Bian et al. 1996; Cairns et al. 2005a; Aydin Er...
Table 2. Studies assessing decision making capacity in voluntary and involuntary psychiatry inpatients separately.

<table>
<thead>
<tr>
<th>Study</th>
<th>Test used</th>
<th>Voluntary patients</th>
<th></th>
<th>Involuntary patients</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Percentage with mental capacity</td>
<td></td>
<td>n</td>
<td>Percentage with mental capacity</td>
</tr>
<tr>
<td>Beckett and Chaplin (2006)</td>
<td>117</td>
<td>72%</td>
<td></td>
<td>124</td>
<td>63%</td>
</tr>
<tr>
<td>Cairns et al. (2003a)</td>
<td>76</td>
<td>72%</td>
<td></td>
<td>86</td>
<td>74%</td>
</tr>
<tr>
<td>Curley et al. (2016)</td>
<td>57</td>
<td>92%</td>
<td></td>
<td>55</td>
<td>75%</td>
</tr>
<tr>
<td>Hoffman and Srinivasan (2002)</td>
<td>50</td>
<td>90%</td>
<td></td>
<td>50</td>
<td>80%</td>
</tr>
<tr>
<td>Mandarrelli et al. (2010)</td>
<td>150</td>
<td>63%</td>
<td></td>
<td>150</td>
<td>63%</td>
</tr>
<tr>
<td>Owens et al. (2008)</td>
<td>21</td>
<td>Odds ratio = 1</td>
<td></td>
<td>11</td>
<td>Odds ratio = 0.85 (95% confidence interval: 0.56-1.3)</td>
</tr>
<tr>
<td>Owens, Schofield, and Smith (2006)</td>
<td>21</td>
<td>Odds ratio = 1</td>
<td></td>
<td>11</td>
<td>Odds ratio = 0.85 (95% confidence interval: 0.56-1.3)</td>
</tr>
</tbody>
</table>

MACAT T: MacArthur Competence Assessment Tool for Treatment.

and Srinivasan 2002; Tor et al. 2020). Overall, there is evidence of a link between lack of capacity and serious mental illness such as schizophrenia and bipolar disorder.

**Discussion**

The primary aims of this systematic review were to ascertain the prevalence of mental capacity to make treatment decisions among psychiatry inpatients and to focus on specific areas of interest within this population, including the relationship, if any, between decision making capacity and legal admission status (voluntary and involuntary) and the correlation, if any, between research tools used to measure decision making capacity and the binary judgements of clinicians using criteria such as those in mental capacity legislation, which are commonly used in clinical practice.

While it was not possible to group the findings mathematically due to the heterogeneity of the studies, it is clear that most psychiatry inpatients have mental capacity to make treatment decisions (Table 1). To summarize, we identified 45 papers from 33 studies. The prevalence of decision making capacity varied between 5% (Paul and Oyebo 1993) and 83.7% (Jones et al. 1998). The prevalence of decision making capacity among involuntary patients ranged from 7.7% (Curley et al. 2019) to 42% (Beckett and Chaplin 2006), and among voluntary patients ranged between 29% (Beckett and Chaplin 2006) and 97.9% (Curley et al. 2019). This reflects a paradoxical situation whereby some involuntary patients lack mental capacity, and some involuntary patients have decision making capacity, despite their involuntary status.

This situation stems, in part, from the fact that many jurisdictions, including Ireland, do not include lack of decision making capacity in their criteria for involuntary admission. In addition,
patients who lack mental capacity, but do not object to admission or treatment, can be ‘voluntary’ patients in some jurisdictions, including Ireland, although this is changing.

In England and Wales, prior to the enactment of the Mental Capacity Act, 2005, informal (i.e. ‘voluntary’) admission was often facilitated for non-objecting patients who lacked capacity (Owen, Smulder et al. 2009). These restrictions were, however, deemed to be a deprivation of liberty and in breach of the European Convention on Human Rights (Owen, Smulder et al. 2008). The 2005 Act was subsequently amended to provide deinstitutionalisation of liberty safeguards. There is a similar need for legislative clarity in Ireland regarding ‘voluntary’ psychiatry mandates, which lack decision-making capacity (DG). There are longstanding recommendations for reform in this area and these should be expedited (Carley et al. 2013).

However, this is a complex area (Bian et al. 1994). Article 12 of the United Nations (UN) Convention on the Rights of Persons with Disabilities states that all persons have ‘legal capacity on an equal basis with others’ regardless of disability. The UN Convention’s General Comment No. 5 (2014) states: ‘The capacity of persons with disabilities and their designation in institutions against their will, either without their consent or with the consent of a substitute decision-maker ... constitutes arbitrary deprivation of liberty and violates Articles 12 and 14 of the Convention’ (para. 40). In addition, the Committee argues that ‘support in the exercise of legal capacity must respect individuals will and preferences of persons with disabilities and should never amount to substitute decision-making’ (para. 17). But, as Smulder reflects, interpreting this in line with this fashion is not necessarily in patients’ best interests and has the potential impact on their well-being (Bian et al. 1994). Appelbaum suggests ways of navigating this problem, but ultimately sees augmenting Article 12 as the only way to overcome its extreme interpretation, and in the meantime, action avoiding the legislation when it lacks a comprehensive approach to managing a vulnerable person with a disability (Carney et al. 1997).

Our systematic review aimed to identify studies comparing dimensional assessments of capacity using tools such as the MacCAT-T with binary clinical judgements. This is an area that was not addressed in the 2020 Calko Barba meta-analysis, adding importance to our study. We found that eight studies used both the MacCAT-T and legal criteria (Cairns et al. 2005a; Cairns et al. 2005b; Owen et al. 2008; Owen, David et al. 2007; Owen, Smulder et al. 2009; Owen et al. 2013; Spencer et al. 2018; Carley et al. 2019a), but only two papers reported significant correlation between the two methods (Cairns et al. 2005a; Cairley et al. 2019b). Another study reported a statistically significant positive correlation between MacCAT-T and clinical judgement (Fernandez et al. 2017), but two others showed no correlation between MacCAT-T and clinical judgement (Hollmann et al. 2003; Aydin Er and Schiffrit 2014). These mixed results could be related to the heterogeneity of study populations, different reasons for admission, different definitions of capacity, different timing of assessments following admission and different practices or legislation across jurisdictions.

The absence of a consistent approach to the assessment of decision-making capacity, evident in this review, places psychiatry at risk of being seen as not protecting the rights and autonomy of people with mental illness, or at least not doing so in a systematic, predictable or reliable way (Hollmann and Sinitsina 1992). Recent years have seen a significant move towards functional assessments of capacity, which is now regarded as both better considered and time specific. This is a positive development and will hopefully be implemented consistently across jurisdictions in the coming years and help to resolve this problem.

Standardised tools such as the MacCAT-T can help structure both clinical and legal assessments of capacity and increase consistency. The strong correlation we found between the MacCAT-T and capacity assessments based on Ireland’s Assisted Decision Making (Capacity) Act, 2015, suggests that the MacCAT-T could reasonably be used in clinical practice to assist with capacity assessments that meet legal criteria (Carley et al. 2019b). Cairns and colleagues report similar findings (Cairns et al. 2005b). There is a need for more research on tools used to assess capacity and their correlation with other tools, clinical judgements and legal criteria in different jurisdictions. Future work could usefully address this issue.

It was reassuring to find three studies reporting on categorical mental capacity (i.e., full, partial or absent), rather than a more traditional but less nuanced binary division (i.e., present or absent) (Hoffman and Sinitsina 1992; Aydin Er and Schiffrit 2014; Carley et al. 2019a). This graded categorisation reflects a move towards decision-making supports to assist those who lack full capacity but have partial capacity that can be optimised through support. Hoffman and Sinitsina found that 48% of patients lacked mental capacity, but 17% had partial capacity (Hoffman and Sinitsina 1992). We found that 50.7% of psychiatry inpatients had partial mental capacity (Carley et al. 2019a), and Aydin Er and colleagues found that 18% of patients had partial competency when assessed by physicians, 22.9% had partial competency when assessed by nurses, and 23.1% had partial competency when assessed by the patients’ relatives (Aydin Er and Schiffrit 2014).

Sound legislation is vital if we are to achieve good practice in relation to decision making capacity. In Ireland we await the full implementation of the Assisted Decision Making (Capacity) Act, 2015, which outlines a range of supports to assist people who lack or have partial mental capacity, including ‘decision making assistants’, ‘co decision makers’ (joint decision makers) and ‘decision making representatives’ (substitute decision makers) (Kelly 2017). As previously highlighted, in the Calko Barba et al. (2020) metareview, decision-making capacity impairments in psychotic patients are responsive to interventions which simplify information, which encourages interventions such as shared decision making and supports (Calko Barba et al. 2020). Decision making supports aim to optimise mental capacity and increase autonomy among persons with diminished mental capacity through their graduated approach to providing support (Carley et al. 2019a). Further research on categorical mental capacity in Ireland and other jurisdictions would help to clarify the extent of future requirements for decision support services.

Finally, our systematic review focused on demographic factors associated with mental capacity. Few studies reported significant associations, with mixed findings for age and educational level, sex, and no consistent association with gender. Other factors appear to be more consistently associated with lack of decision making capacity, including psychosis, severity of illness and lack of insight.

Our systematic review is subject to certain limitations. Only nine studies were rated as high quality using the CASP checklist. While the methods and tools used to assess mental capacity were clear and validated in most studies, and samples well described, participation rates were often not addressed. Few studies provided details about non-participants and convenience samples were often used (Rokai et al. 2007). This creates a risk of selection bias. Our review was limited to English language studies, many of which had small samples with consequent risks that significant associations might be missed, and random associations might appear significant. Some studies did not specify reasons for admission (e.g., diagnosis) which might have an influence on issues relating to capacity, further study is needed to clarify this issue further. There was also large variation in estimates of mental
capacity across studies, which might relate to the range of tools used, differing legal criteria and the heterogeneity of the study populations. There was also variation in the specificity of the treatment, with most studies assessing mental capacity to consent to treatment; some studies specifying medication while some chose hospitalisation. There was variation in the timing of assessments as detailed in Table 1. These limitations are common to all systematic review of this topic.

Conclusions
Our systematic review provides a comprehensive synthesis of studies examining mental capacity for treatment decisions among psychiatry inpatients. While the prevalence of decision making capacity varied between 5% and 63.7%, we conclude that most psychiatry inpatients have mental capacity to make treatment decisions. In addition, the prevalence of decision making capacity among voluntary patients ranges between 29% and 97.9%, and among involuntary patients ranges between 7.2% and 42.9%. This means that 93%, 95%, and 99% of patients possess mental capacity to decide about treatment, but many involuntary patients do. Finally, there is some evidence of a positive correlation between clinical binary judgement of decision making capacity and scores on the MacCAT T.

All efforts should be made to optimise the decision-making capacity of all patients, voluntary and involuntary. There is a significant proportion of psychiatry inpatients, especially involuntary patients, who lack full mental capacity and would benefit from decision-making supports, such as those set out in Ireland's Assisted Decision Making (Capacity) Act 2015. These should be provided. The situation of 'voluntary' patients who lack decision making capacity also needs to be addressed through both decision making supports to optimise capacity and legislative reform to ensure that rights are respected - both the right to treatment and the right to liberty and autonomy.

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