

Too Sick for Freedom, Too Healthy for Treatment. Untreated Patients in Forensic Psychiatry: A Literature Review

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Abstract

Introduction

Laws on the ability to treat incapable forensic psychiatry patients vary among jurisdictions. In Ontario, Canada, findings of treatment incapacity can be appealed, delaying treatment for months to years. The ethical implications of the right to refuse medical treatment versus the society's obligation to ensure a patient receives treatment when detained by the State because of a treatable illness is a matter of considerable debate. Courts can order medical treatment to make a mentally ill accused person fit to stand trial, yet in many jurisdictions there are legal obstacles to the continuation of treatment after the court hearing. In forensic hospitals, assaults by involuntarily detained patients occur for a variety of reasons. We conducted a literature review to better understand the risks of treatment delays (due to refusal and legal proceedings) to hospitalized psychiatric patients and staff.

Method

A literature search was undertaken using the following search terms: 'forensic', 'seclusion', 'restraint', 'violen*', 'aggress*', 'assault*', 'inpatient', 'refus*', 'noncom-

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pliance', 'nonadherence', 'predict', 'anosognosia'. Outcome data were extracted from relevant publications.*

Result

46 publications were initially identified, with 17 additional relevant publications identified through citations from these 46 papers. 20 studies and case series were reviewed. Legal treatment delays for forensic inpatients lasting several weeks were associated with an increased frequency and duration of seclusion, use of physical restraints, longer admissions, and more frequent rehospitalizations. Untreated patients had higher rates of making threats and perpetrating physical assaults and increased rates of being transferred to higher security hospitals.

Conclusion

Evidence suggests that treatment refusal among forensic psychiatric patients is associated with poor outcomes including an increase in aggression directed towards others including staff and other patients, longer hospital stays, and an increase in restrictive safety interventions such as seclusion and restraint. Anosognosia may contribute to treatment refusal and failure to recognize anosognosia as a symptom of schizophrenia may misguide laws that restrict treatment. Appeals of treatment incapacity very rarely result in reversal of the finding. These findings may have implications for stakeholders in Ontario and other places where involuntary treatment can be refused; legislators and advocates concerned with patient rights should consider them when promoting the right to refuse treatment.

Limitations

Publication bias might result in overemphasis of negative consequences of treatment refusal.

I. Introduction

One of the fundamental principles in medicine is that no capable patient should be treated without his or her consent. In contrast, when the State deprives a person of liberty because that person's mental illness causes a risk to the person or to others, the State has a duty to treat the person's illness. These two considerations may collide when a person is involuntarily detained and deemed to be capable of refusing treatment. Less controversial, when a person is found to be legally incapable of consenting to treatment, that treatment should be initiated in a timely manner. In this paper we explore the potential consequences of treatment delays associated with legal proceedings for patients cared for in the forensic system.

Historically, legislators and courts have had mixed opinions about whether to compel treatment for patients who were incompetent to stand trial.¹ Eventually, courts decided that because it was in the State's interest to ensure the defendant became competent to stand trial, treatment could be compelled.² Judges have not been willing to allow unfit defendants to refuse treatment to avoid trial.³ However, once the trial is over, the courts have not shown interest in ensuring that the accused continues the treatment that helped him become fit to stand trial.⁴

In Ontario, if the patient returns to hospital after appearing in court, he has a right to refuse treatment, unless found incapable of consent.⁵ Most courts have agreed that individual liberty interests are justifiable reasons for treatment refusal by capable civil patients.⁶

Legal precedent may contribute to the problem in obtaining treatment for offenders with a mental illness. For example, the court in *Fleming v. Reid* and *Gallagher* stated that antipsychotics are indisputably 'mind altering', mentioned the benefits in passing, and emphasized the severity of side effects.⁷ Also, the Wisconsin Supreme Court listed many severe side effects of antipsychotic medications but did not mention any therapeutic benefit.⁸

This skewed perception of psychiatric treatments can be understood through the legal lens that emphasizes the basic right of people to be left alone if they want. Most of the time when a court has to make a ruling about a proposed psychiatric treatment, it is in the context of that treatment being given against the apparent will of the patient. Further, the courts rarely if ever get to see first hand the eventual benefits of such treatments. Quite naturally this leads to a negatively biased view, which still influences current judgments and frequently results in treatment delays.

¹ Miller, Bernstein, Van R. Miller, R.D., Bernstein, M.R., Van Rybroek, G.J., & Maier, G.J. (1989). The Impact of the Right to Refuse Treatment in a Forensic Patient Population: Six-Month Review. *The Bulletin of the American Academy of Psychiatry and the Law*, 17(2), 107-19. Retrieved from www.ncbi.nlm.nih.gov/pubmed/2758115.

² Anderson, K.K., Voineskos, A., Mulsant, B.H., George, T.P., & Mckenzie, K.J. (2014). The Role of Untreated Psychosis in Neurodegeneration: A Review of Hypothesized Mechanisms of Neurotoxicity in First-Episode Psychosis. *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie*, 59(10), 513-7. Retrieved from www.pubmedcentral.nih.gov/articlerender.fcgi?artid=4197784&tool=pmcentrez&rendertype=abstract.

³ See footnote 1.

⁴ See footnote 1.

⁵ See footnote 2.

⁶ *Fleming v. Reid* 2728 (ON CA)1991-06-28 *Court of Appeal for Ontario*, 1991.

⁷ See footnote 6.

⁸ *Jones and Galicia et al. v. Gerhardstein et al.* 141 Wis.2d 710, 416 N.W.2d 883 (1987).

Upon challenge, the right to refuse treatment has been sustained on the basis that psychotropic medications are 'mind controlling'.⁹ Yet, recommendations to make a person fit to stand trial contingent upon treatment with psychotropic medications are accepted by the courts.¹⁰ The ability of courts to paradoxically justify opposite views about the safety and effectiveness of psychotropic medications is puzzling.

It is tempting to assume that a person who is unfit to stand trial is likely incapable to consent to treatment. However, in Ontario and some other jurisdictions, the decision to admit involuntarily and the decision to treat involuntarily are regulated by separate statutes and processes. This results in a tension between federal law that allows courts to impose treatment to make a person fit with no recourse to appeal, yet this occurs despite stringent protection of a capable person's right to refuse unwanted treatment. In Ontario, involuntary admission is regulated by the Mental Health Act (MHA) adjudicated by the Consent and Capacity Board (CCB) for civil patients and Section 672 of the Criminal Code adjudicated by the courts and the Ontario Review Board (ORB) for forensic patients. For both civil and forensic patients, treatment capacity decisions must follow the rules laid out in the Health Care Consent Act (HCCA) adjudicated by the CCB. This means a forensic psychiatric patient can be sick enough to require involuntary hospitalization by order of the court, but well enough to refuse treatment.

If a physician assesses a patient to be incapable of consenting to treatment, the patient has a right to appeal that finding to the CCB. If the CCB upholds the finding of incapacity the patient can appeal this decision to the courts. No new treatment can be initiated until the final disposition of the patient's challenge of the finding of treatment incapacity, except in rare cases when the physician is able to successfully petition the courts for an interim treatment order. This contributes to treatment delays that may last months to years and even decades in some cases.¹¹ This situation may harm some patients, because evidence suggests that treatment delay worsens long-term prognosis, at least among patients with first episode psychosis.¹² This worsening of prognosis

⁹ Rodenhauser, P. (1984). Treatment Refusal in a Forensic Hospital : Ill-Use of the Lasting Right. *Bull Am Acad Psychiatry Law*, 12(1), 59-63.

¹⁰ See footnote 9.

¹¹ Solomon, R., O'Reilly, R., Gray, J., & Nikolic, M. (2009). TREATMENT DELAYED – LIBERTY DENIED. *Canadian Bar Review*, 87, 679-719.

¹² Marshall, M., Lewis, S., Lockwood, A., Drake, R., Jones, P., & Croudace, T. (2005). Association between Duration of Untreated Psychosis and Outcome In Cohorts of First-Episode Patients: A Systematic Review. *Archives of General Psychiatry*, 62(9), 975-983. Retrieved from <http://dx.doi.org/10.1001/archpsyc.62.9.975>.

might be related to missed opportunities for timely social development¹³, or possibly because untreated psychosis is neurotoxic.¹⁴ It can also lead to harm to staff or other patients because some forensic patients may behave violently under the influence of their illness.¹⁵ Indeed, a concern over safety for others is usually the reason for the involuntary psychiatric admission of psychotic civil patients or the detention of forensic inpatients.

To address the question of risk associated with treatment delays, we conducted a review of the literature pertaining to the outcomes associated with treatment refusal by involuntary or forensic psychiatry inpatients. Our aims were to better understand the risks to patients and staff of legal treatment delays, and to summarize the evidence on which to base recommendations for clinical care, for the legal system and for legislation reform.

2. Methods

A PubMed search of the MEDLINE (1946-2015) database was undertaken using the following search terms: ‘forensic’, ‘seclusion’, ‘restraint’, ‘violence*’, ‘aggression*’, ‘assault*’, ‘inpatient’, ‘refusal*’, ‘noncompliance’, ‘nonadherence’, ‘predict*’. Additional papers were identified through manual search of bibliographies of relevant articles. Papers were determined to be of interest if they had content related to some aspect of aggression among forensic psychiatry patients or anosognosia, along with content related to not taking indicated treatment. We completed our final search in August 2015. We identified and reviewed 46 papers of which 15 were found not to be relevant to the topic. We identified 9 additional relevant papers through citations from the 31 relevant papers for a total of 40 papers. Among these 40 papers were 20 studies and case reports. The remainder were useful in the overall background and discussion of our review.

3. Results

A total of twenty studies of treatment refusal in forensic psychiatry patients were identified. A summary of the articles we reviewed can be found in Table 1 at pages 99-103, at the end of this article. Table 1 shows the

¹³ See footnote 11.

¹⁴ See footnote 2.

¹⁵ Iozzino, L., Ferrari, C., Large, M., Nielssen, O., & de Girolamo, G. (2015). Prevalence and Risk Factors of Violence by Psychiatric Acute Inpatients: A Systematic Review and Meta-Analysis. *Plos One*, 10(6), e0128536. <http://doi.org/10.1371/journal.pone.0128536>.

Summary of Literature regarding Treatment Refusal in Forensic Psychiatry Patients.

The next three sections present the main findings related to treatment refusal and its impact on length of stay, use of seclusion and restraints, and assaults and threats.

3.1 Treatment Refusal

The studies reviewed ranged from 3 weeks to 44 months in duration; 7 were retrospective chart reviews and 7 were prospective observational or naturalistic in design. About half of the studies had fewer than 100 subjects, and the range was 20-670.

As discussed by Miller et al. (1989),¹⁶ Callahan (1986)¹⁷ reported on the effect of the Davis v. Watkins (1980)¹⁸ decisions among 501 forensic patients who were refusing treatment. The Davis decisions led to federally mandated treatment for forensic patients in Ohio, resulting in construction of regional forensic hospitals, and requiring treatment to be the least restrictive that would still permit public safety. Callahan (1986)¹⁹ found that 55.1% of treatment refusals were overturned by the end of the review process; 30.7% of patients eventually consented to take treatment; and 14.2% of patients never agreed to take treatment.

Veliz & James (1987)²⁰ found that 20 of 22 patients who refused treatment and went to court had their refusals overturned, but the average waiting time before the court hearing was 4.5 months, and the staff decided not to challenge most of the treatment refusals because it was a time-consuming process.

3.2 Consequences of the Jones Decision

In Jones and Galicia et al. v. Gerhardstein et al., (1987),²¹ and reported by Miller et al., (1989),²² the Wisconsin Supreme Court found that

¹⁶ See Footnote 1.

¹⁷ Callahan, L.A. (1986). Changing Mental Health Law: Butting Heads with a billygoat. *Behavioural Sciences and the Law*, 4(3), 305-314.

¹⁸ Davis v. Watkins 344 F.Supp. 1196 (N.D. Ohio 1974); Davis v. Balson, 410 F.Supp 842 (N.D. Ohio); Davis v. Hubbard, 506 F.Supp. 915 (N.D. Ohio) (1980).

¹⁹ See footnote 15.

²⁰ Veliz, J., & James, W.S. (1987). Medicine Court – Rogers in Practice. *American Journal of Psychiatry*, 144(1), 62-67.

²¹ See footnote 8.

²² See footnote 1.

unless there was a judicial determination of incapacity to make treatment decisions, involuntarily committed psychiatric patients have a right to refuse treatment. In its decision, the court specifically included patients who were involuntarily committed to hospital after being found incapable of standing trial and those who were found not guilty by reason of mental disease or defect. The court took this approach for two reasons: first, one of the named plaintiffs was acquitted because of insanity, and secondly the Wisconsin criminal commitment statutes concerning criminal commitments referred to civil commitment statutes, which include the right to refuse treatment. The findings of the court also apply to forensic patients.

Miller et al. (1989)²³ studied 165 forensic patients, including 91 who refused treatment at least part of the time. After the *Jones* decision, the average delay in treatment increased significantly from 22.6 days in the first three months to 38.4 days during the second three months.²⁴ They found no significant difference in transfers of patients to maximum security units, but they found a very large increase in the use of seclusion on the admission unit which housed the great majority of patients refusing treatment.²⁵ During the six months after the *Jones* decision, these patients collectively spent 1924 hours in seclusion as compared with 322 hours during the 6 months period before the decision ($p < .001$).²⁶ This more than fivefold increase reflected an increase in both the number of seclusion episodes and in the lengths of seclusion.²⁷

3.3 Other Study Findings

Baker, Bowers, & Owiti (2009)²⁸ reported on a study of 136 acute mental health wards in the UK and found that high levels of medication refusal were correlated with higher levels of containment, including seclusion. Also, medication refusal was the reason behind the use of restraint 16% of the time.

Similarly, several other studies have found that refusing medications is associated with higher rates of, and longer durations in, restraint or seclusion;

²³ See footnote 1.

²⁴ See footnote 1.

²⁵ See footnote 1.

²⁶ See footnote 1.

²⁷ See footnote 1.

²⁸ Baker, J.A., Bowers, L., & Owiti, J.A. (2009). Wards features associated with high rates of medication refusal by patients: a large multi-centred survey. *General Hospital Psychiatry*, 31(1), 80-89. <http://doi.org/10.1016/j.genhosppsych.2008.09.005>.

longer admissions; more frequent rehospitalizations; and higher rates of assaults or threats of assaults.^{29, 30, 31, 32, 33, 34, 35, 36}

For instance, Russ and John did a retrospective chart review of 130 patients who had undergone court proceedings to authorize involuntary medication and compared them to 132 matched patients who accepted treatment in hospital.³⁷ Lengths of stay in hospital were longer in the group who refused treatment. This group also had significantly higher rates of transfer to a state hospital for long-term inpatient care. Transfers to state hospitals occur when patients are considered to be too unsafe to be discharged after 4-6 months of treatment in a less restrictive setting.

In a previous review, Owiti & Bowers (2011)³⁸ searched the electronic literature up until 2009 for articles related to involuntary treatment, and treatment refusal among psychiatric patients. They found 22 studies, including 6 conducted in forensic settings and 9 prospective studies of which three were randomized. Among the prospective studies, there were statistically significantly higher rates of physical and chemical restraint, assaults, threats of assaults, use of seclusion, higher doses of medication (when forcibly medicated), and longer

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- ²⁹ Bloom, J.D., Faulkner, L.R., Holm, V.M., & Rawlinson, R.A. (1984). An Empirical View of Patients Exercising their Right to Refuse Treatment. *International Journal of Law and Psychiatry*, 7(3-4), 315-28. [http://doi.org/10.1016/0160-2527\(84\)90015-3](http://doi.org/10.1016/0160-2527(84)90015-3).
- ³⁰ Hassenfeld, I.N., & Grumet, B. (1984). A Study of the Right to Refuse Treatment. *Bull Am Acad Psychiatry Law*, 12(1), 65-74.
- ³¹ Rodenhauser, P., Schwenkner, C.E., & Khamis, H.J. (1987). Factors Related to Drug Treatment Refusal in a Forensic Hospital. *Hospital & Community Psychiatry*, 38, 631-637. <http://doi.org/10.1176/ps.38.6.631>.
- ³² Hoge, S.K., Appelbaum, P.S., Lawlor, T., Beck, J.C., Litman, R., Greer, A., Gutheil, T.G., Kaplan, E. (1990). A Prospective, Multicenter Study of Patients' Refusal of Antipsychotic Medication. *Archives of General Psychiatry*, 47(10), 949-956. <http://doi.org/10.1001/archpsyc.1990.01810220065008>.
- ³³ Kasper, J.A., Hoge, S.K., Feucht-Haviar, T., Cortina, J., & Cohen, B. (1997). Prospective Study of Patients' Refusal of Antipsychotic Medication under a Physician Discretion Review Procedure. *The American Journal of Psychiatry*, 154(4), 483-9. Retrieved from www.ncbi.nlm.nih.gov/pubmed/9090334.
- ³⁴ Bloom, J.D., Williams, M.H., Godard, S.L., & Faulkner, L.R. (1988). The Influence of the Right to Refuse Treatment on Precommitment Patients. *Bull Am Acad Psychiatry Law*, 16(1), 5-9.
- ³⁵ Marder, S.R., Swann, E., Winslade, W.J., Van Putten, T., Chien, C.-P., & Wilkins, J.N. (1984). A Study of Medication Refusal by Involuntary Psychiatric Patients. *Hospital & Community Psychiatry*, 35(7), 724-726.
- ³⁶ Smith, L.D. (1989). Medication refusal and rehospitalized mentally ill inmate.pdf. *Hospital & Community Psychiatry*, 40(1), 491-496.
- ³⁷ Russ, M.J., & John, M. (2013). Outcomes Associated with Court-Ordered Treatment over Objection in an Acute Psychiatric Hospital. *Journal of the American Academy of Psychiatry & the Law*, 41(2), 236-244.
- ³⁸ Owiti, J.A., & Bowers, L. (2011). A Narrative Review of Studies of Refusal of Psychotropic Medication in Acute Inpatient Psychiatric Care. *Journal of Psychiatric and Mental Health Nursing*, 18(7), 637-647. <http://doi.org/10.1111/j.1365-2850.2011.01713.x>.

lengths of stay in hospital. A longer duration of treatment refusal was associated with longer times in restraint and a higher numbers of restraint episodes. Patients who refused treatment were also more likely to be transferred to state hospitals. The reviewed retrospective studies found that treatment refusal was also associated with longer lengths of stay, greater behavioral acuity, persisting symptoms at discharge, higher number of admissions, more threats of and actual violence, refusal to eat, and shorter average lengths of stay (2 studies). The effect of treatment refusal on length of stay was mixed in these retrospective studies, with some studies reporting a longer length of stay and other studies reporting a shorter length of stay. Some outcomes may have diverged due to different laws and regulations pertaining to treatment refusal in different jurisdictions, i.e., 'rights-driven' versus 'treatment-driven'. In places where treatment is the driving force, patients who refuse treatment would be more likely to be transferred to a state hospital. Under the rights-driven model, some patients who refuse treatment would be discharged without medication. The overall conclusion was that patients who refuse medication are hospitalized longer and have higher rates of assaults and threats of assault. In four studies, patients who refuse treatment were found to have spent more time in seclusion or restraints. Two studies found no difference in time spent in restraints or seclusion, but they had small sample sizes and thus they were likely underpowered to detect a difference.

In a naturalistic study of 670 patients with psychosis in 7 psychiatric hospitals in Germany, poor medication compliance was statistically associated with a history of aggression prior to admission.³⁹

Rodenhauser et al. (1987)⁴⁰ conducted a chart review of 421 patients in a maximum-security forensic hospital to assess relationships between clinical factors and patient acceptance or refusal of medication. The use of restraints among those who refused medications (77%) was significantly higher than among those who did not receive medications (23%) or took them voluntarily (36%). Also, the median length of hospitalization was significantly longer among refusers (148 days) than nonrefusers (78 days). Similarly, the median length of hospitalization was significantly longer among those who took medications involuntarily than among those who took them voluntarily. According to the authors, 'based on a 1984 hospital cost of \$249.53 per patient per day, the difference of 70 days in median length of hospitalization between refusers and

³⁹ Janssen, B., Gaebel, W., Haerter, M., Komaharadi, F., Lindel, B., & Weinmann, S. (2006). Evaluation of Factors Influencing Medication Compliance in Inpatient Treatment of Psychotic Disorders. *Psychopharmacology*, 187(2), 229-236. <http://doi.org/10.1007/s00213-006-0413-4>.

⁴⁰ See footnote 27.

nonrefusers suggests that the typical refuser costs the State about \$17,467 more than the typical nonrefuser.⁴¹

Alia-Klein, O'Rourke, Goldstein, & Malaspina, (2007)⁴² did a correlative study in New York using semi-structured interviews supplemented by reviews of hospital records and interviews with expert informants. Sixty male psychotic inpatients of a forensic unit participated. Violence was associated with both medication non-adherence and poor insight but there was no association between insight and adherence in this study. These results suggest that male forensic patients who do not believe they are ill or do not readily accept the need for treatment are more prone to violence. It suggests that allowing these patients to refuse treatment presents a risk to others, even in a forensic inpatient setting.

Young, Bloom, Faulkner, Rogers, & Pati, (1987)⁴³ retrospectively reviewed all patients in a 200 bed forensic unit whose physician had requested permission to override treatment refusal. Of the 35 identified patients, 17 were incompetent to stand trial; the remainder were under review board jurisdiction, except for one who was civilly committed and thought to be very dangerous. Among these 17 patients, there were no clear changes in frequency of episodes of emergency medication, seclusion or restraints before and after the override. Reasons for the override request included deterioration or lack of improvement of mental status; threats; physical attacks on staff, patients and property; deteriorating physical condition; and suicidal behaviour. The authors felt that the patients who were refusing treatment were doing so not because of a rational decision, but as a result of their psychotic disorder. Involuntary treatment with medication restored the competency of all of the pretrial patients, and by the conclusion of the study, 19% of the review board patients had improved sufficiently to return to the community.

Hill, Rogers, & Bickford, (1996)⁴⁴ investigated the relationship between psychopathy (measured using the Hare Psychopathy Checklist, Screening Version – PCL-SV) and incidents of self-harm, aggression, escape threats or attempts, and treatment refusal. Subjects were 55 US male maximum-security

⁴¹ See footnote 27.

⁴² Alia-Klein, N., O'Rourke, T.M., Goldstein, R.Z., & Malaspina, D. (2006). The Relationship between History of Violent and Criminal Behavior and Recognition of Facial Expression of Emotions in Men with Schizophrenia and Schizoaffective Disorder. *Aggressive Behaviour*, 32(3), 187-194. <http://doi.org/10.1002/ab.20170>.

⁴³ Young, J.T., Bloom, J.D., Faulkner, L.R., Rogers, J.L., & Pati, P.K. (1987). Treatment Refusal among Forensic Inpatients. *Bulletin of the American Academy of Psychiatry & the Law*, 15(1), 5-13.

⁴⁴ Hill, C.D., Rogers, R., & Bickford, M.E. (1996). Predicting Aggressive and Socially Disruptive Behavior in a Maximum Security Forensic Psychiatric Hospital. *Journal of Forensic Sciences*, 41(1), 56-9. Retrieved from www.ncbi.nlm.nih.gov/pubmed/8934700.

forensic inpatients (age range: 19-69); 75% had a diagnosis of alcohol or drug misuse. Non-compliance was significantly correlated with aggression during a 6-month follow-up period ($r = 0.42$; $p < 0.01$). Aggression included verbal abuse, verbal threats, irritability, belligerence, and fighting. In a series of regression analyses, baseline diagnoses of alcohol/drug abuse ($R = 0.34$) and psychopathy (defined based on either PCL-SV continuous scores ($R = 0.43$) or a PCL-SV cut-off score ($R = 0.69$)) predicted aggressiveness. Psychopathy based on a PCL-SV cut-off score also predicted non-compliance ($R = 0.30$).

4. Discussion

Our literature review found that forensic patients who refuse psychiatric treatment have worse outcomes: they are hospitalized longer, have higher rates of threats of assault or actual assault, and spend more time in restraints or seclusion.

In order to put treatment refusal in proper medical context, it is important for both clinicians and courts to understand the concept of anosognosia. The most common reason that people with bipolar disorder and schizophrenia avoid taking their medications is anosognosia.⁴⁵ Anosognosia is a neurological condition is related to damage to specific parts of the brain and characterized by impaired awareness of illness. It affects about half of patients suffering from schizophrenia and four of ten who have bipolar disorder.⁴⁶ It is also commonly found among victims of stroke, where there is direct destruction of brain tissue.⁴⁷

Treatment with medications can improve awareness of illness in some patients.⁴⁸ In forensic settings, lack of awareness of illness may present as objection to the diagnosis and may lead to a legal challenge of treatment that some patients see as intrusive and unnecessary. With access to legal counsel readily available, these patients can challenge any process that would compel them to accept treatment. Although legal protection is important, the forensic setting seems to foster a more adversarial approach to mental illness. Thus, forensic patients

⁴⁵ Torrey, E.F. (2015). Impaired awareness of illness: Anosognosia. Retrieved July 4, 2016 from <http://mentalillnesspolicy.org/medical/anosognosia-studies.html>.

⁴⁶ See footnote 41.

⁴⁷ Jehkonen, M., Laihosalo, M., & Kettunen, J. (2006). Anosognosia after Stroke: Assessment, Occurrence, Subtypes and Impact on Functional Outcome Reviewed. *Acta Neurologica Scandinavica*, 114(5), 293-306. <http://doi.org/10.1111/j.1600-0404.2006.00723.x>.

⁴⁸ See footnote 1.

with psychosis and anosognosia are at increased risk for treatment refusal and therefore poor outcomes.⁴⁹

It is noteworthy that a growing number of studies support the idea that poor insight and resulting treatment refusal come from a mental or cognitive deficit, rather than an informed choice.^{50, 51} As of August 2015, at least 22 published studies have assessed relationships among anosognosia, or loss of insight, and changes in brain structures or functions.^{52, 53, 54} Of these 22 studies, 20 investigated specific brain measures and reported significant associations between these measures and anosognosia. The two negative publications investigated non-specific brain measures: volume of total ventricular space or total brain volume.

As summarized by Torrey, 'a person's awareness of illness involves a brain network that includes the prefrontal cortex, cingulate, superior and inferior parietal areas, and temporal cortex and the connections between these areas. Damage to any combination of these areas can be associated with anosognosia, but damage to the prefrontal and parietal areas together make anosognosia particularly likely'.⁵⁵ For example, in a study in the Netherlands, functional MRI was used to assess 47 participants with schizophrenia and 21 healthy controls.⁵⁶ They performed a task requiring them to think about themselves during the fMRI scans. Diminished self-reflection, as measured by the Schedule for the Assessment of Insight – Expanded version (used in this study as a proxy for anosognosia), was associated with significantly less brain activation in several areas, in the parietal and frontal lobes. As another example, a French study

49 Lehrer, D.S., & Lorenz, J. (2014). Anosognosia in Schizophrenia: Hidden in Plain Sight. *Innovations in Clinical Neuroscience*, 11(5-6), 10-17.

50 Young, D.A., Zakzanis, K.K., Bailey, C., Davila, R., Griesse, J., Sartory, G., & Thom, A. (1998). Further Parameters of Insight and Neuropsychological Deficit in Schizophrenia and other Chronic Mental Disease. *Journal of Nervous and Mental Disorders*, Jan;186(1), 44-50.

51 Arango, C., & Amador, X. (2011). Lessons Learned about Poor Insight. *Schizophrenia Bulletin*, 37(1), 27-28. <http://doi.org/10.1093/schbul/sbq143>.

52 TreatmentAdvocacyCenter. (2013). Treatment Advocacy Center Background: The Anatomical Basis of Anosognosia (Lack of Awareness of Illness). Retrieved July 4, 2016, from www.treatmentadvocacycenter.org/about-us/our-reports-and-studies/2143.

53 Shad, M.U. and Keshavan, M.S. (2015) Neurobiology of insight deficits in Schizophrenia: An fMRI study. *Schizophrenia Research*, 165(2-3), 220-6. DOI: 10.1016/j.schres.2015.04.021. Epub 2015 May 6.

54 Spalletta, G., Piras, F., Piras, F., Caltagirone, C. & Orfei, M.D. (2014). The Structural Neuroanatomy of Metacognitive Insight in Schizophrenia and its Psychopathological and Neuropsychological Correlates. *Human Brain Mapping*, 35(9), 4729-40. DOI: 10.1002/hbm.22507. Epub 2014 Apr 3.

55 See footnote 45.

56 Van der Meer, L., de Vos, A.E., Stiekema, A.P.M., Pijnenborg, G.H.M., van Tol, M.-J., Nolen, W. A., ... Aleman, A. (2013). Insight in Schizophrenia: Involvement of Self-Reflection Networks? *Schizophrenia Bulletin*, 39(6), 1288-1295. <http://doi.org/10.1093/schbul/sbs122>.

compared 31 participants with paranoid schizophrenia and 18 healthy controls. Single photon emission computed tomography was used to assess cerebral blood flow.⁵⁷ About two-thirds (21) of the 30 schizophrenia patients had good insight about their illness and one-third (10) did not. Looking specifically at the precuneus, the patients who had poor illness awareness demonstrated evidence of significantly diminished cerebral blood flow, bilaterally ($p < 0.001$). The precuneus, located in the superior parietal lobe, is known to be associated with self-consciousness and self-awareness of internal emotional state.⁵⁸ No significant differences were observed in the frontal lobes.⁵⁹

Failure to recognize anosognosia specifically as a symptom of schizophrenia associated with specific cerebral dysfunction may contribute to misguided laws that restrict treatment, exposing patients and society as a whole to the unintended consequences of untreated mental illness.

The regional differences in the ability to treat patients who refuse treatment are likely related to the prevailing local philosophical views, i.e., rights-driven versus treatment-driven. Also, some regions have more active antipsychiatry groups that influence politicians and legislation. Where such activism occurs, it is difficult to overcome emotional rhetoric and philosophical beliefs with mere scientific evidence.

Another factor that potentially influences legislators is whether they are concerned with being re-elected. If they perceive that voters prefer criminals and mentally ill patients to be locked up for as long as possible, they may avoid legislation that makes treatment easier, which could in turn lead to earlier release back in to society.

In general, treatment refusal appears to be associated with problematic behaviors among forensic psychiatric patients. In the studies reviewed, refusal of treatment was overridden in the vast majority of cases. This suggests that the requisite legal proceedings do eventually permit treatment. However, the process is very time consuming and the period during which treatment is refused is associated with increased rates of seclusion and restraint, aggressive and assaultive behavior, assaults and threats towards others, and longer lengths of hospital stay. Unfortunately, data is lacking on whether these patients ultimately respond to treatment. If their outcomes are similar to the outcomes of nonforensic patients subjected to delays in treatment, one would expect response to be less

⁵⁷ Faget-Agius, C., Boyer, L., Padovani, R., Richieri, R., Mundler, O., Lançon, C., & Guedj, E. (2012). Schizophrenia with Preserved Insight is Associated with Increased Perfusion of the Precuneus. *Journal of Psychiatry & Neuroscience*, 37(5), 297-304. <http://doi.org/10.1503/jpn.110125>.

⁵⁸ See footnote 53.

⁵⁹ See footnote 53.

complete, take longer, or require more complex treatment regimens.⁶⁰ These delays in treatment may also lead to higher rates of progression to treatment refractoriness.⁶¹

5. Conclusions

Available evidence suggests that treatment refusal often occurs due to the symptom of anosognosia and permitting forensic patients to refuse treatment is associated with increased risks of violence, seclusion, physical restraint, chemical restraint, and poor outcomes. We recognize that not all forensic psychiatry patients can benefit from treatment with medications. However, as noted by Solomon et al. (2009),⁶² very few patients regain their liberty without treatment. Permitting treatment refusal in severely ill treatable forensic patients is not only contrary to the patient's best interest, it is profoundly detrimental to their liberty, their health and safety, and the safety of others, even if they remain confined to hospital.

In the Starson case, the Supreme Court of Canada ruled that a patient's best interest is irrelevant in determining treatment capacity.^{63, 64} However, during serious psychosis, the constitutional right of security of the person is impaired by the illness. Involuntary treatment is not a violation of this right because its purpose is to restore health and the ability to exercise rights that have been taken away by an illness.

Legislators, courts and advocates concerned with patient rights ought to consider these findings when judging the right to refuse treatment. They should view the use of medications to restore capacity to make treatment decisions, normal mental health, liberty and safety of others as being at least as important as using medications to restore fitness to stand trial.

⁶⁰ Perkins, D.O., Gu, H., Boteva, K., & Lieberman, J.A. (2005). Relationship between Duration of Untreated Psychosis and Outcome in First-Episode Schizophrenia: A Critical Review and Meta-Analysis. *American Journal of Psychiatry*, 162(10), 1785-1804.
<http://doi.org/10.1176/appi.ajp.162.10.1785>.

⁶¹ Meagher, D., Quinn, J., Bourke, S., Linehan, S., Murphy, P., Kinsella, A., Mullaney J., Waddington, J. (2004). Longitudinal Assessment of Psychopathological Domains over Late-Stage Schizophrenia in Relation to Duration of Initially Untreated Psychosis: 3-Year Prospective Study in a Long-Term Inpatient Population. *Psychiatry Research*, 126(3), 217-27.

⁶² See footnote 11.

⁶³ *Starson v Swayze*, [2003] 1 S.C.R. 722 2003 SCC 32 (2003).

⁶⁴ See footnote 11.

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TABLE 1

| Authors | Citation | Sample size | Duration | Design | Main Findings |
|----------------------------|---|---|-----------|---|--|
| Alia-Klein N. et al. | <i>Aggressive Behaviour</i> 2007;33:86–96 | 60 male psychotic forensic inpatients | 6 months | Patients interviewed and records reviewed | Overall, non-adherence with medication explained much of how violently participants behaved toward others, but adherence was independent of insight. Community violence severity increase was associated with nonadherence with medication, also with poor insight into illness, substance use comorbidity and other covariates. |
| Baker J.A. et al. | <i>General Hospital Psychiatry</i> 2009;31:80–89 | 136 Acute mental health wards | 6 months | Patient staff conflict checklist data collected in a multicentre survey | High levels of medication refusal were correlated with higher levels of containment, including seclusion. |
| Bloom J.D. et al. | <i>Bull Am Acad Psychiatry Law</i> 1988;16(1):5–9 | 73 civilly committed state hospital treatment refus-ers | 6 months | Retrospective chart review | Refusal of treatment was overridden in almost all cases. Mean time to override was 12.5 extra days in hospital. Precommitment patients spent as much time in treatment refusal as commitment patients. |
| Bloom J.D. et al. | <i>Int J Law Psychiatry</i> 1984;7:315–26 | 84 episodes of treatment refusal among 82 patients | 12 months | Retrospective chart review | The right to refuse treatment was overridden in 95% of cases. |
| Callahan L.A. | <i>Behav Sci Law</i> 1986; 4:305–14 | 113 treatment-refusing state hospital patients | 24 months | Review of due process hearing records for the first 2 years after patients were granted the right to refuse treatment | Most hearing decisions do not meet court-ordered criteria to permit involuntary treatment with medications. |
| Hassenfeld I.N., Grunet B. | <i>Bull Am Acad Psychiatry Law</i> 1984;12:65–74. | 10 involuntary treatment refus-ers, 10 matched controls | 1.5 years | Retrospective chart review | Compared with controls, treatment refusers had nearly double the length of stay due to time spent in administrative review processes. |

| Authors | Citation | Sample size | Duration | Design | Main Findings |
|-------------------|---|---|----------|--|---|
| Hill C.D. et al. | <i>Journal of Forensic Sciences, JFSCA</i> , 1996;41(1):56-59 | 55 US male maximum-security forensic inpatients | 6 months | Prospective observational study. Patients were interviewed and rated on the Psychopathy Checklist Screening Version (PCL:SV) | Cox's PCL:SV was predictive of aggression and noncompliance with treatment. There were significant correlations between noncompliance and aggression. Psychopathy predicted noncompliance. |
| Hoge S.K. et al. | <i>Arch Gen Psychiatry</i> 1990;47:949-56 | 103 treatment-refusers vs controls among 1434 state hospital psychiatric inpatients | 6 months | Prospective observational multicentre study | On admission, prior to refusal of medication, patients who refused were found to have significantly higher Brief Psychiatric Rating Scale scores than compliant patients and more negative attitudes regarding their hospitalization and past, present, and future treatment. Treatment refusal had negative effects on the hospital milieu and on the patient; refusers were more likely to require seclusion or restraint and had longer hospitalizations than treatment acceptors. Most refusal episodes ended with voluntary acceptance of treatment. Every case that had judicial review resulted in involuntary treatment orders. |
| Janssen B. et al. | <i>Psychopharmacology</i> 2006;187:229-236 | 670 German state and university hospital patients with psychotic disorders | 2 years | Naturalistic multicentre study in 7 psychiatric hospitals in Germany | At discharge, 11 patients (1.6%) refused all kinds of medication, 35 (5.2%) accepted only minimal dosages, 52 (7.6%) were skeptical and needed heavy persuasion, 54 (8.1%) were moderately reluctant. Those with higher medication compliance showed significantly greater improvement of their psychiatric symptoms during the inpatient stay. History of aggressive behavior, involuntary admission, and having not graduated from school were powerful predictors for poor medication compliance. |

| Authors | Citation | Sample size | Duration | Design | Main Findings |
|-----------------------|---|---|-----------|--|---|
| Kasper J.A. et al. | <i>Am J Psychiatry</i> 1997;154(4):483–9 | 348 state hospital inpatients | 6 months | Prospective observational multicentre study | Patients who refused treatment were found to have significantly higher BPRS scores than were patients who complied with antipsychotic treatment and more negative attitudes toward hospitalization and past, present, and future treatment. Refusal episodes were brief, on average 2.8 days, and all patients who refused treatment were treated. When compared with the compliant patients, patients who refused treatment were more likely to be assaultive, were more likely to require seclusion and restraint, and had longer hospitalizations. |
| Marder S.R. | <i>Hosp Community Psychiatry</i> 1984;35(7):724–6 | 31 consecutive inpatients admitted to a locked unit | 21 days | Prospective observational study | 15 of 31 involuntarily admitted patients would refuse treatment if they were permitted to. 12 of the refusers were clinically improved and less likely to refuse after 2 weeks of treatment. |
| Miller et al. | <i>Bull Am Acad Psychiatry Law</i> 1989;17(2):107–19 | 165 | 6 months | Prospective observational | 29% refused treatment after being informed of their right to refuse. Seclusion incidents and time in seclusion increased significantly thereafter. |
| Owitt J.A., Bowers L. | <i>Journal of Psychiatric and Mental Health Nursing</i> , 2011, 18, 637–647 | N/A | N/A | Narrative review of the 22 studies of medication refusal in acute psychiatry | Refusal of medication was common, leading to unfavorable outcomes. These included higher rates of restraint and seclusion, threats of assault, assaults, and more days in hospital. |
| Rodenhauser P. et al. | <i>Hosp Community Psychiatry</i> 1987;38:631–7 | 421 maximum security forensic hospital patients | 44 months | Retrospective chart review | Treatment refusers had significantly longer lengths of hospitalization that were not reduced by receipt of medication. Significant relationships were also found between treatment refusal and involuntary medication, use of restraints, and greater number of previous hospitalizations. |
| Rodenhauser P. | <i>Bull Am Acad Psychiatry Law</i> 1984;12(1):59–63 | 39 forensic admissions | 12 months | Follow up of treatment refusers at a forensic hospital | No patient refused medication because of rationally understanding their legal rights. The most common reason for persistent refusal was to be able to avoid the intended drug effect. |

| Authors | Citation | Sample size | Duration | Design | Main Findings |
|---------------------|--|--|-----------|---|--|
| Russ M.J. & John M. | <i>J Am Acad Psychiatry Law</i> 2013;41:236-44 | 132 treatment-refusing patients who underwent court proceedings for authorization to treat them, and 132 matched treatment acceptors, compared with 88 who agreed to treatment after initial refusal | 3 years | Retrospective chart review | A court order to permit treatment in spite of higher rate of transfer objection was granted in 96% of the treatment-refusing group. They had a longer average length of stay than the comparison group, and a higher rate of transfers to state hospitals. |
| Smith L.D. | <i>Hosp Community Psychiatry</i> 1989;40(5):491-6 | 472 involuntary forensic state hospital patients | 12 months | Retrospective chart review | Medication refusal, hallucinations and delusions, and threatened or potential violent behavior toward others were the most frequently documented reasons for admission. Medication refusal was associated with a greater number of hospitalizations, shorter hospitalizations, diagnoses of paranoid schizophrenia or schizophreniaiform disorders, longer prison sentences, and convictions for more serious felonies. Inmates admitted for medication refusal were also likely to be referred concurrently for threatened or potential violent behavior toward others. |
| Solomon R. et al. | <i>Research Insights of the Regional Mental Health Care London and St. Thomas</i> 2009;6(2):1-9. | N/A | N/A | Retrospective review of legal case literature | Over 15 years, 6 cases of psychiatric patient's treatment capacity or prior capable wishes (advance directives) to refuse treatment were upheld by an Ontario court. Courts overturned confirmation of treatment incapacity in only 2 cases. These patients were detained untreated in hospital for lengthy periods of time and only became well enough to be discharged when treatment was given. |

| Authors | Citation | Sample size | Duration | Design | Main Findings |
|-------------------|--|---|-----------|---|--|
| Veliz and James | <i>American Journal of Psychiatry</i> 1987;144(1): 62–67 | 98 criminally insane men undergoing capacity-to-consent assessments | 12 months | Prospective study of petitions submitted to probate court | 20 of 22 patients who refused treatment and went to court had their refusals overturned, but the average waiting time before the court hearing was 4.5 months. |
| Young J.T. et al. | <i>Bull Am Acad Psychiatry Law</i> 1987;15(1):5–13 | 33 treatment refusing forensic state hospital inpatients | 9 months | Retrospective chart review | Refusal was overridden in every case. Psychiatric Security Review Board patients took longer to override treatment than pretrial patients. They frequently attacked and threatened staff and other patients. |