Antecedents, Behaviours, and Court Case Characteristics and Their Effects on Case Outcomes in Litigation for Persons with Schizophrenia

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A 10% random sample of 3543 cases litigated in the United States' civil and criminal courts were analysed using logistic regression to develop a model that can predict case outcomes for litigants with schizophrenia. Most predictors are related to case characteristics and not to the litigants' antecedents, behaviours or medication issues. Only the psychologist as an expert witness was found to be related to case outcome, but the concern is expressed that inadequate weight is given to expert testimony. Other significant findings include being represented by counsel, atypical medication and malingering.

Key words: court; civil and criminal litigation; criminal justice; expert witness; legislation; logistic regression; mental illness; schizophrenia.

Introduction

It is estimated that half of the total incarcerated population suffers from some type of diagnosable psychiatric disorder (James & Glaze, 2006). According to James and Glaze (2006) and Torrey, Kennard, Eslinger, Lamb, & Pavle (2010), it is estimated that 15% of state prisoners and 24% of jail inmates meet the criteria for a psychotic disorder. It is important to remember that '[v]iolence in people with psychotic disorders is not inevitable' (Silverstein, Del Pozzo, Roché, Boyle, & Miskimen, 2015, p. 35). The focus of this article is to assess the case outcomes of persons with schizophrenia who are involved in the judicial system in both criminal and civil cases.

When any individual is judged guilty in a legal proceeding, negative events occur during the proceeding and negative consequences follow. Criminal courts take into

consideration whether the defendant is suffering from a psychiatric illness, but this is not so in civil cases (Appelbaum, 2012). When people with mental illness harm others, the courts refuse to consider their mental state in determining civil liability. Litschge and Michsel (2009), drawing upon the work of Pogorzelski, Wolff, Pan, and Blitz (2005), show the unintended negative effects that mentally-ill offenders confront after incarceration, including but not limited to the denial of voting rights and parental rights.

Objective of the Research

The objective of this research is to discern how persons with schizophrenia fare in the United States court system, with the ultimate outcome contributing to theory and clinical practice regarding the treatment of this population. The organization of this article begins

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with a review of the extant literature on factors associated with violence, law enforcement involvement, judicial system involvement, and criminal justice system involvement, with an emphasis on describing variables associated with favorable court outcomes for persons suffering from schizophrenia.

A conceptual model is then presented, after which the methodology of this exploratory investigation of legal cases is described, followed by an analysis of the empirical findings. Finally, a set of literature- and evidence-based recommendations is formulated with the aim of advancing this field of inquiry and equipping mental health professionals and legal professionals to better ensure that defendants and plaintiffs suffering from schizophrenia get a 'fair shake' in the court system.

Antecedents

The complexity of how a person with schizophrenia fares in court can be better understood if one considers the antecedents, including the demographics, behaviours, medications, and case characteristics. Examining these in one study can significantly add depth to the current understanding.

Age

Age makes a difference regarding criminal justice system involvement. In an investigation using data from the Clinical Antipsychotic Trials of Intervention Effectiveness, younger participants were found to be significantly more likely to commit a violent act (Silverstein et al., 2015). They were also more likely to be involved with the criminal justice system (Greenberg et al., 2011). Interestingly, in this same investigation, quality of life, service use, medication use attitudes, insight and medication compliance did not distinguish between those participants who are involved with the criminal justice system and those who are not (Greenberg et al.,

2011). Overall however, the younger the person with schizophrenia, the more likely he or she is to be involved with the criminal justice system.

Abused as a Child

Victims of child abuse who suffer from schizophrenia as adolescents and adults are more likely to be involved with the criminal justice system. According to the United States Department of Health & Human Services (2012), 680,000 children were victims of maltreatment in 2011. Individuals with a documented history of child abuse and neglect are statistically more likely to be arrested for violence and self-reported violent behaviour (Milaniak & Widom, 2015). Van Dorn, Volavka, and Johnson (2012) found an empirical association between childhood abuse and neglect and violence among persons with schizophrenia.

Co-morbidity

Homelessness

Homelessness among persons with schizophrenia is associated with criminal justice system involvement (A. Walsh & Yun, 2013). It is estimated that a significant proportion of homeless individuals carry a psychiatric diagnosis (Scott, 1993). Of note is the fact that homeless persons with schizophrenia are also more likely to be victimized by crime (Fischer, Shinn, Shrout, & Tsemberis, 2008; Roy, Crocker, Nicholls, Latimer, & Ayllon, 2014; Swanson et al., 2006). Homelessness is related to less than adequate family support in some cases (Schwartz, Kautzman-East, Macey, & Chopko, 2015) and family relationship problems are predictive of legal system involvement (Schwartz et al., 2015). Additionally, homelessness, severe mental health problems, and veteran status are interrelated among the incarcerated (Tsai, Rosenheck, Kaspro, & McGuire, 2014).

Veterans

Veterans with schizophrenia represent a different population than others who are involved with the criminal justice system: 'Many justice-involved veterans have problems that may benefit from mental health treatment' (Blodgett et al., 2015, p. 4). The prevalence of schizophrenia among justice-involved veterans was found to be between 9% and 21%. Similar to other persons with schizophrenia involved in the criminal justice system, there is co-morbid substance abuse disorder too (Blanchard, Brown, Horan, & Sherwood, 2000; Blodgett et al., 2015).

Behaviours of People with Schizophrenia

The specific behaviours of the person with schizophrenia can impact on how they fare in court. These include their employment status, medication issues including compliance, being involved in violence, malingering, substance abuse, and suicide ideation and attempts.

Employment

Employment status is a predictor of violent behaviour among persons with schizophrenia, as evidenced by its inclusion as a factor in clinical tools used to predict violence in this patient population (Meszaros et al., 2011). One investigation found that persons with a serious mental illness including schizophrenia are at increased risk of exhibiting violent behaviour if they have experienced some type of financial crisis (Elbogen, Dennis, & Johnson, 2016). In another investigation, it was found that both unemployment and homelessness are distinguishing factors between a female schizophrenic population in a forensic setting and a female schizophrenic population not in a forensic setting (Landgraf, Blumenauer, Osterheider, & Eisenbarth, 2013). Finally, in another study, statistically significant differences were found among those persons with

schizophrenia who engage in violence and those who do not, based upon many factors that include being unemployed (Karabekiroğlu, Pazvantoğlu, Karabekiroğlu, Böke, & Korkmaz, 2015). Unemployment is also associated with being a victim of crime among persons with schizophrenia (Swanson et al., 2006). In summary, employment status is a contributing factor concerning criminal justice system involvement.

Medication Issues

Medication is an important contributing factor among persons with schizophrenia concerning criminal justice system involvement. Volavka (2013) surmised – based upon a review of the literature – that the effectiveness of anti-psychotic medication in reducing violence decreases in cases in which the individuals with schizophrenia also have a conduct disorder. Similar to how there are multiple pathways to violence among persons with schizophrenia, there is a variety of medications available for treating violent behaviour among persons with schizophrenia. At this point in time, Clozapine is the gold standard (Frogley, Taylor, Dickens, & Picchioni, 2012). Yet, it is not the panacea (Volavka, 2012). It may be that the non-responders also have a history of conduct disorder as children (Swanson, Swartz, et al., 2008).

Other anti-psychotic medications prescribed to reduce violent behaviour among persons with schizophrenia include Olanzapine, Risperidone, Aripiprazole, Quetiapine, and Ziprasidone. Other classes of medication include anti-convulsants and lithium, which are not supported by the evidence in addressing violent behaviour among persons with schizophrenia (Volavka, 2012). As with all medications, non-adherence is a barrier to the intended benefits.

The evidence is clear that non-adherence to pharmacological treatment increases the risk of violence among persons with schizophrenia (Volavka and Citrome, 2011). Poor medication adherence has been found to be a

predictor of legal system involvement (Swanson, Swartz, et al., 2008). Citing previous research, Ascher-Svanum, Nyhuis, Faries, Ball, and Kinon (2010) conclude: 'Although the cause-effect relationship between medication adherence and criminal justice system encounters cannot be delineated from the current study, the findings suggest that involvement may represent yet another, potentially underappreciated, consequence of medication nonadherence' (p. 5). In summary, both the type of medication and adherence to it are contributing factors related to risk of persons with schizophrenia becoming involved with the criminal justice system.

Violence

The literature suggests that individuals suffering from schizophrenia are at higher risk of committing violent acts than the general population (Lamberti, 2007; Silverstein et al., 2015; E. Walsh et al., 2004). There is not a single factor among persons with schizophrenia that is associated with an increased risk of criminal justice system involvement. Those persons with schizophrenia who also have a history of special education, alcohol abuse, and at least one previous conviction are more likely to demonstrate violent behaviour (E. Walsh et al., 2004). A lack of insight in general and lacking an understanding of the legal implications of behaviour is a risk factor of violence among persons with schizophrenia (Buckley et al., 2004; Swanson, Van Dorn, et al., 2008).

Violence among individuals with schizophrenia is not caused by a single factor. Volavka (2012) discusses the multiple pathways to violence among persons with schizophrenia, and Elbogen et al. (2016) concludes that it is 'simplistic as well as inaccurate to say that the cause of violence among the mentally ill individuals is the mental illness itself' (p. 159). Before describing each of the antecedents, it must be remembered that the majority of persons with schizophrenia are not violent and in fact more often than not are

victims of violence rather than perpetrators (Taylor, 2008).

Malingering

Malingering is presenting oneself in a certain fashion to gain some type of favor. Malingering is not limited to persons with schizophrenia; Cunniën (1988) describes how malingering is associated with involvement in civil and criminal legal action. Regarding competence to stand trial, decisional competence is the hallmark of whether the person with schizophrenia can participate in the court proceedings (Reisner, Piel, & Makey, 2013). In proceedings to determine competency to stand trial, the literature is mixed regarding the interrelationship between malingering and intellectual as well as concentration problems among those with psychotic disorders (Paradis, Solomon, Owen, & Brooker, 2013).

Substance Abuse

It is well established that substance abuse comorbidity among persons with schizophrenia increases the likelihood of criminal justice system involvement (Fazel, Långström, Hjern, Grann, & Lichtenstein, 2009; Fuku-naga & Lysaker, 2013; McCabe et al., 2012). In a community-based study of persons with schizophrenia and legal system involvement, it was found that 52% of the sample with legal system involvement had a lifetime substance abuse diagnosis (Attridge & Wallace, 2010). This finding is consistent with previous research (Clark, Ricketts, & McHugo, 1999; Theriot & Segal, 2005). In a state study of 25,133 adults, it was found that 27% over a two-year period were involved with the criminal justice system in some way (Robertson et al., 2015). Furthermore, 37% were diagnosed with schizophrenia and 65% were diagnosed with a co-occurring substance abuse disorder. Interestingly, persons with schizophrenia and substance abuse diagnoses are also more likely to fall victim to crime (Swanson et al., 2006).

Suicide

The risk of suicide attempts is higher for persons with schizophrenia compared to the general population. Specifically, the risk is 8.5 times greater (H. Lee, Lee, Koo, & Park, 2015). In fact, 6 out of 10 individuals with schizophrenia attempt suicide at some point in their life (Caldwell & Gottesman, 1990). Furthermore, 5–7% of those with schizophrenia die from suicide (Dutta et al., 2013; Nordentoft, Mortensen, & Pedersen, 2011). Given these sobering epidemiological facts, prevention of suicide among persons with schizophrenia has been a subject of study (Pedersen, Jensen, Gradus, Johnsen, & Mainz, 2014). There are several empirically-derived risk factors of suicide among persons with schizophrenia, including but not limited to being male, living alone, not living with family, poor compliance, and drug misuse (Hawton, Sutton, Haw, Sinclair, & Deeks, 2005).

Court Case Characteristics

Criminal Justice System Involvement

It is well established that persons suffering from schizophrenia and other severe mental illnesses experience higher rates of incarceration (Greenberg et al., 2011; Litschge & Michsel, 2009). However, in a more recent empirical investigation, it was concluded that ‘while symptom severity and particular schizophrenia symptoms may be associated with violent behaviour they are not associated with greater CJS [criminal justice system] involvement in general’ (Greenberg et al., 2011, p. 733). Interestingly, the most prevalent form of criminal justice involvement among persons with schizophrenia is becoming a victim of crime in 67% of cases (Ascher-Svanum et al., 2010). Symptoms of schizophrenia may put people at a disadvantage when they need to appear in court (Greenberg et al., 2011). They may self-medicate with alcohol (Jones, Lichtenstein, Grann, Långström, & Fazel, 2011; Meydan, Liu, & Hasin, 2005) and may be arrested for

alcohol-related offenses. They might also have co-morbid illegal substance use (Blanchard et al., 2000; Koskinen, Löhönen, Koponen, Isohanni, & Miettunen, 2010). They may not have counsel or be competent to assist their counsel (L. Lee & Pinals, 2011), either at the initial proceedings or when seeking habeas corpus (Vlaskovits & Noffsinger, 2012).

If considered competent, the person is subject to trial and possible incarceration; if found incompetent, the person is committed to a psychiatric facility until deemed competent (Fogel, Schiffman, Mumley, Tillbrook, & Grisso, 2013). This can involve involuntary medication, which may be perceived as punitive, even if that has not been adjudicated (Livermore, Malmquist, & Meehl, 1968; Segal, 2012). Law enforcement and court officials (Netter and Viglione Jr, 1994; Paradis et al., 2013) may inappropriately consider people with schizophrenia to be violent (Eriksson, Romelsjö, Stenbacka, & Tengström, 2011; Langevin & Curnoe, 2013; Miller, Barber, Azrael, Hemenway, & Molnar, 2009), suicidal (Miller et al., 2009; Tousignant et al., 2011) or recidivistic (Cloyes, Wong, Latimer, & Abarca, 2010; Rice & Harris, 1995). They may not have access to expert testimony, or the experts may have difficulty assisting them (Harvey et al., 2012). Malingering of symptoms is also a possibility (Netter & Viglione, 1994; Paradis et al., 2013).

Police Involvement

The literature predicting contact with law enforcement suggests that the following characteristics are risk factors: being younger, poorer social functioning, medication nonadherence, and history of arrest and assault (Brekke, Prindle, Bae, & Long, 2001, 2014).

Represented by Counsel and Ineffective Counsel

Having effective legal counsel makes a difference in the outcome of cases both in the

criminal and civil justice systems. Effective counsel, as defined by *Black's Law Dictionary*, is 'conscientious, meaningful legal representation, whereby the defendant is advised of all rights, and the lawyer performs all required tasks reasonably according to the prevailing professional standards in a criminal case' (Garner, 2009, pp. 138–139). Abrahamyan (2013) observes that this right has expanded over the years beyond the Strickland Standard based upon the 1984 ruling in *Strickland v. Washington* (1984) and now includes both protection of and advocacy for clients. Aside from the Strickland Standard, the Sixth Amendment to the United States Constitution provides: 'In all criminal prosecutions, the accused shall enjoy the right to [...] the Assistance of Counsel for his defense'.

On the other hand, ineffective counsel has many definitions. In *Morton v. Secretary* (2012), 'deficiency' is defined as representation by counsel which falls below 'prevailing professional norms' (p. 1166). According to Roberts and Blue (2014), a 'prejudiced defense' is defined as a one where the 'counsel's errors were so serious as to deprive the defendant of a fair trial' (p. 253). There are two prongs to demonstrating ineffective counsel: performance and prejudice (Abrahamyan, 2013).

Defendants have the option in the United States court system to be represented by legal counsel or to represent themselves, which is termed *pro se*. Anglo-American jurisprudence has long recognized the defendant's right to proceed *pro se* (Schiffer et al., 2010). Due process requires that criminal defendants be mentally competent to stand trial before they can be prosecuted without violating the United States Constitution (Laursen, Munk-Olsen, & Gasse, 2011). In *Indiana v. Edwards* (2008), the Supreme Court held that a higher standard might be required for *pro se* competence than for competence to stand trial. Overall, '[v]iolence and criminality in patients with schizophrenia have been described in several studies but prediction of

later criminal behaviour is difficult' (Soyka, Graz, Bottlender, Dirschedl, & Schoech, 2007, p. 89).

Another line of evidence suggesting a positive benefit of persons with schizophrenia being represented by counsel is the finding that effective counsel is defined as 'attorneys who understand mental illness and family law and the family court system and who can act as strong advocates' (Seeman, 2012, p. 4), at least in child custody cases. It is reasonable to extend this assertion beyond child custody cases to other cases in both civil and criminal courts.

Expert Witness

Presence of a Psychologist or Psychiatrist

Does the presence of a psychologist make a difference in court outcomes? This question has not yet been examined based on this extensive review of the literature – yet, it may be reasonable to surmise given the evidence that there is an inverse relationship between receiving mental health treatment and committing acts of violence among those persons with schizophrenia (Langeveld et al., 2014; Large & Nielssen, 2011). Other empirical evidence shows that one out of three individuals experiencing their first psychotic episode commit an act of minor violence before receiving treatment (Nielssen, Malhi, McGorry, & Large, 2012).

Competent to Stand Trial

Both the criminal and civil court system rest on the assumption that the defendant and plaintiff are competent before proceeding with the trial. Being diagnosed with schizophrenia does not de facto translate into incompetency; thus, competency must be evaluated by a professional appointed by the court.

In one study, it was found that individuals diagnosed with schizophrenia who were involved with the criminal justice system cost the state 70% more at US\$61,824 than those

diagnosed with schizophrenia without criminal justice system involvement at US\$36,408 (Robertson et al., 2015). It was concluded that the higher cost is attributed to forensic hospitalizations largely emanating from being found incompetent to stand trial and being found not guilty by reason of insanity (Robertson et al., 2015)

In summary, based upon a discussion of empirically-derived antecedents, it must be stated that the prediction of violence among persons with schizophrenia is challenging. Given the previously-discussed reality that few persons with schizophrenia exhibit violent behaviour (Fazel et al., 2009), it has been asserted that any process to predict violent behaviour may result in false positives (Szmukler, 2001). Furthermore, in a systematic review of clinical instruments used to predict the risk of violence among persons with schizophrenia, it has been concluded that 'there is currently little direct evidence for their utility in individuals with schizophrenia' (Szmukler, 2001, p. 899). This finding reinforces the fact that violence among persons with schizophrenia is comprised of a host of interrelated factors (Lamsma & Harte, 2015), some of which are described above.

Child Custody

An important issue in the court involvement of persons with schizophrenia is child custody. Seeman (2011) reports that one in two mothers suffering from schizophrenia lose custody of their children, either permanently or temporarily. Ackerson (2003) portrays this loss as a second source of victimization. Seeman (2012) notes how grief and distress follow these losses of custody. The most vulnerable period is the postpartum period (Seeman, 2011). Medication adherence seems to be a risk factor of losing custody (Busch & Redlich, 2007). To date, the literature is silent concerning the relationship between losing custody cases and criminal justice system involvement as a predictor rather than an outcome of arrest and/or conviction.

Case Remanded

A remand occurs when a higher-level court sends the case back to a lower-level court. It has been found that most remands are sent back to district courts from federal courts of appeal (Boyd, 2015). Furthermore, according to Kuersten and Haire (2007), nearly 74% court of appeals cases which were reversed and/or vacated the decision of the district court judge contain a remand.

A limitation of the existing theory, which this research aims to address, is the examination of multiple variables across multiple settings over a relatively short period. The above-cited research, while extensive, tends to separate the various antecedents and does not consider their relationship to adjudication. Also, as noted, individuals with schizophrenia are likely to encounter major challenges in court, in terms of both understanding the reason for their presence in court and the consequences of court outcomes. The present analysis will attempt to discern the extent to which these variables affect adjudication and court outcomes in this population.

Court Outcomes: A Conceptual Model

In spite of these aforementioned predictors of court involvement, there is a dearth of research on the determinants of both civil and criminal court case outcomes for persons with schizophrenia. Exploratory research is warranted with regard to identifying the variables associated with case outcomes once the court proceedings have begun. The present research focuses upon what happens in court, rather than what happens prior to court.

Hypotheses

The following hypotheses were made regarding what the results of this research would show:

Hypothesis 1: A positive relationship will be found between case outcome and demographic antecedents such as age, sex, brain injury, and being abused as a child.

Hypothesis 2: A positive relationship will be found between case outcome and physical and psychological co-morbidities.

Hypothesis 3: A positive relationship will be found between case outcome and behaviour and lifestyle variables such as alcohol and drug use, homelessness, weapon use, and suicide ideation.

Hypothesis 4: A positive relationship will be found between case outcome and type of medication (atypical and typical) and involuntary adherence to medication.

Hypothesis 5: A positive relationship will be found between case outcome and various case characteristics such as civil commitment, competence to stand trial, court level, the involvement of expert witnesses, physicians, psychiatrists, psychologists, and/or vocational experts, ineffective counsel, pro se, recidivism, being represented by an attorney, the presence of at least one previous conviction, giving inadequate weight to expert opinions, habeas corpus, Atkins, and remand.

Method

This study uses an empirical analysis of litigated cases. This technique is useful for studies where there is an intersection between psychology and law, and it has been used with increasing frequency since the 1990s (Eisenberg, 2004). The Empirical analysis in legal studies is a methodology that has advanced research in psychology and law over the past 25 years. Using the litigated case as a unit of analysis, it allows for a broader understanding of the intersection between psychology and law. Recognition of its potential is attributed to Eisenberg (2004), Heise (2002, 2011), and Mitchell (2004). It is an approach that continues to be valued and used both in legal and behavioural sciences (Befort, 2013; Best, Edelman, Krieger, & Eliason, 2011; Black, Schweitzer, & Varghese, 2012; Boyd, 2015; Ho & Kramer, 2013).

The rationale for the use of empirical analysis includes the elimination of problems with access and informed consent, transparency in the collection and coding of the data, and ease of inclusion of behaviour in a variety of different settings. For example, the current study contains the following settings: homelessness, prisons, extended care facilities, hospitals, psychiatric care facilities, and the Veterans' Administration. Since the transcripts of court proceedings are reviewed by multiple parties, interviewer bias is reduced. It is recognized that not every case contains identical information. The use of empirical analysis to examine litigated cases eliminates the problems of conducting experimental design. It is well accepted that using observations to develop theory allows for major contributions to subsequent theory (Glaser & Strauss, 1967).

Sample

The litigated cases are a 10% random sample of 3543 cases litigated in all courts during the period 2010 to 2012 in which one of the keywords is 'schizophrenia'. The cases were retrieved from the Lexis Nexis database of court cases at all court levels. Only cases in which the person with schizophrenia was a litigant were included. This reduced the total number of usable cases to 299. Content analysis was undertaken by multiple coders to discern the above-discussed variables. Additionally, in some instances, the person with schizophrenia was the witness or the victim, compounding the adjudication. The variables are coded into five categories: antecedents (primarily demographics), behaviours of person with schizophrenia, medication, court case characteristics, and outcome. Table 1 delineates the way in which the variables were coded, and their frequencies are presented in Table 2.

Results

Table 2 presents the frequencies for all cases and also for criminal cases and civil cases

Table 1. The coding of the variables.

Antecedents

Person with schizophrenia: 1 = litigant, 2 = spouse, 3 = child, 4 = witness, 5 = family member, 6 = victim

Age: child = 0–17 years, young adult = 18–30, middle-aged = 31–50, old = 51 and over

Sex of person with schizophrenia: male, female

Presence of brain injury/head injury: yes, no

Presence of child abuse: yes, no

Physical co-morbidity: yes, no (includes physical symptoms of side effects of medication such as sleeplessness, tachycardia, tardive dyskinesia, etc.)

Psychological co-morbidity: yes, no (includes substance abuse)

Paranoia: yes, no

Anxiety disorder: yes, no

Mood disorder: yes, no

Presence of disability: yes, no

Veteran: yes, no

Behaviours of the person with schizophrenia

Employee: yes, no

Has a job: yes, no

Alcohol abuse: yes, no

Homeless: yes, no

Malingering: yes, no

Other drug use: heroin, marijuana, cocaine, none

Firearm, gun: yes, no

Suicide attempt(s) and/or ideation: yes, no

Drug or substance abuse: yes, no

Medication

Atypical medication, including: Risperidone (Risperdal), Olanzapine (Zyprexa), Quetiapine (Seroquel), Ziprasidone (Geodon), Aripiprazole (Abilify), Paliperidone (Invega)

Typical medication, including: Chlorpromazine (Thorazine), Haloperidol (Haldol), Perphenazine (generic only), Fluphenazine (generic only)

Medication compliant (voluntary): yes, no, not mentioned, no medication

Involuntary medication: yes, no

Court case characteristics

Social security: yes, no

Child custody: yes, no

Police involvement: yes, no

Court level: state, federal

Represented by counsel (includes public defender): yes, no

Ineffective counsel: yes, no

Pro se: yes, no

Expert witness: yes, no

Physician: yes, no

Psychologist: yes, no

Psychiatrist: yes, no

Vocational expert: yes, no

Inadequate weight given to experts: yes, no, not relevant

Civil commitment: yes, no

Competent to stand trial: yes, no, not relevant

Habeas corpus: yes, no

Atkins: yes, no

Recidivism: yes, no

Commissioner of Social Security: yes, no

Veterans Affairs: yes, no

Outcome

Case outcome: person with schizophrenia, not person with schizophrenia

Remand for further adjudication in current case: yes, no

Table 2. Frequency of occurrence of characteristics in the sample cases.

Case characteristics	All cases (<i>n</i> = 299)	Criminal (<i>n</i> = 90)	Civil (<i>n</i> = 209)
Antecedents			
Aged 18 to 50	80.9	90.0	77.0
Male	79.3	93.3	73.2
Presence of brain injury	3.7	3.3	3.8
Presence of childhood abuse	3.7	4.4	3.3
Physical co-morbidity	30.4	7.8	40.2
Psychological co-morbidity	72.2	61.1	77.0
Paranoia	46.8	43.3	48.3
Anxiety disorder	26.4	11.1	33.0
Mood disorder	28.4	14.4	34.4
Presence of disability	43.8	18.9	54.5
Veteran	9.7	2.2	16.3
Behaviours of the person with schizophrenia			
Employee	17.7	20.0	16.7
Has a job	30.4	11.1	38.8
Alcohol abuse	24.1	22.2	24.9
Homeless	6.4	4.4	7.2
Malingering	9.7	15.6	7.2
Other drug use – heroin	4.7	6.7	3.8
Other drug use – marijuana	16.1	18.9	14.8
Other drug use – cocaine	16.1	18.9	14.8
Firearm, gun	13.7	23.3	9.6
Suicide attempt(s) and/or ideation	18.4	16.7	19.1
Drug or substance abuse	22.4	18.9	23.9
Medication			
Atypical	21.1	12.2	24.9
Typical	9.4	7.8	10.0
Medication compliant	25.4	20.0	27.8
Involuntary medication	4.0	2.2	4.8
Court case characteristics			
Social security	24.4	6.7	34.9
Child custody	9.7	0.0	13.9
Police involvement	35.8	63.3	23.9
Federal court	62.2	43.3	70.3
Represented by counsel	76.9	83.3	74.2
Ineffective counsel	12.4	33.3	3.3
Pro se	25.8	34.4	22.0
Expert witness	65.2	62.2	66.5
Physician	29.8	7.8	39.2
Psychiatrist	41.1	40.0	41.6
Psychologist	35.8	43.3	32.5
Vocational expert	19.7	0.0	28.2

(continued)

Table 2. (Continued)

Case characteristics	All cases (<i>n</i> = 299)	Criminal (<i>n</i> = 90)	Civil (<i>n</i> = 209)
Inadequate weight given to experts	11.8	4.8	15.1
Civil commitment	12.7	21.1	9.1
Competent to stand trial	25.5	62.2	9.6
Habeas corpus	13.0	38.9	1.9
Atkins	1.7	5.6	0.0
Recidivism	8.4	16.7	4.8
Commissioner of Social Security	24.4	2.2	34.0
Veterans Affairs	9.7	0.0	13.9
Outcome			
Finding for the person with schizophrenia	26.4	16.7	30.6
Remand	18.1	5.6	23.4

separately. Figure 1 displays selected comparisons of the frequencies of civil and criminal cases, and Figure 2 gives a comparison of the cases involving expert witnesses for different types of witness.

First, the similarities between criminal and civil cases are highlighted. With respect to the antecedents, the criminal cases were

more likely to have male litigants with schizophrenia (93.3% criminal vs 73.2% civil). The criminal cases were less likely to have co-morbidity, either physical or psychological, identified, which includes the psychological co-morbidity conditions of anxiety and mood disorders. There seem to be only minimal differences with respect to the

Figure 1. Characteristics of the selected civil and criminal cases.

Figure 2. Percentage of cases involving expert witnesses.

psychological condition of paranoia. The criminal cases were also less likely to involve veterans. With respect to the behaviours of the person with schizophrenia, some cases discussed having a recent job. Only 11.1% of the criminal cases involved this variable, compared to 38.8% of the civil cases. Obviously, criminal individuals who are incarcerated are not currently employed. The following variables have similar patterns with respect to the behaviours of persons with schizophrenia who are involved in criminal versus civil cases: alcohol abuse (approximately 23%); use of marijuana and cocaine (approximately 15% to 20%); suicide attempt (s) and/or ideation (approximately 17% to 19%); and substance abuse (approximately 19% to 24%). There seems to be variability with respect to the reporting of homelessness, with 4.4% for the criminal cases and 7.2% for the civil cases. However, since criminals are incarcerated, homelessness is less likely to be reported. There is also tremendous variability with respect to the reporting of a weapon in the case: 23.3% of the criminal cases versus only 9.6% of the civil cases.

There tend to be differences in medication between the criminal and civil cases. The presence of atypical medication is twice as

high in the civil cases compared to the criminal cases (12.2% criminal vs 24.9% civil). There tends not to be a distinction in terms of percentages when examining typical medications, however (7.8% criminal vs 10.0% civil). The civil cases were more likely to involve people in which medication compliance was an issue; surprisingly, the civil cases involved involuntary medication twice as much as voluntary compared to the criminal cases (2.2% criminal vs. 4.8% civil), although the overincidence is much smaller than was expected.

With respect to the characteristics of the court cases, there are more differences than similarities. There are only two patterns of similarity: expert witness (62.2% criminal versus 66.5% civil) and the presence of a psychiatrist (40.0% criminal versus 41.6% civil). However, most court case characteristics show patterns of differences. For example, social security is 6.7% in the criminal cases vs 34.9% in the civil cases, while child custody is 0.0% criminal vs 13.9% civil, police involvement is 63.3% criminal vs 23.9% civil, and cases at the federal court level is 43.3% criminal vs 70.3% civil. The pattern for pro se is 34.4% in the criminal cases vs 22% in the civil cases, and being represented

by counsel is also different with 33.3% criminal vs 74.2% civil. However, ineffective counsel was part of 33.3% of the criminal cases vs 3.3% of the civil cases. A physician was involved in 7.8% of the criminal cases versus 39.2% of the civil cases, compared to 43.3% criminal vs 32.5% civil for the involvement of a psychologist and 0.0% criminal vs 28.2% civil for the involvement of a vocational expert. Inadequate weight given to the expert opinion was involved in 4.8% of the criminal cases vs 15.1% of the civil cases, and civil commitment was in 21.1% of the criminal cases vs 9.1% of the civil cases. Competence to stand trial was involved in 62.2% of the criminal cases versus 9.6% of the civil cases. Habeas corpus, which would mostly be applicable to criminal cases, was 38.9% for the criminal cases versus 1.9% for the civil cases, while an Atkins plea was involved in 5.6% criminal vs 0.0% civil and recidivism was of concern in 16.7% criminal vs 4.8% civil. The Commissioner of Social Security was involved in 2.2% of the criminal cases versus 34% of the civil cases, and Veterans Affairs involvement was 0.0% criminal versus 13.9% civil.

With respect to case outcome, there was a finding for the person with schizophrenia in 16.7% of the criminal cases vs 30.6% of the civil cases, which represents an overall finding for the person with schizophrenia of 26.4%. Some of the cases were remanded: 5.6% of the criminal cases vs 23.4% of the civil cases. The reader's attention is directed to Table 5, in which the chi-square and phi coefficients of selected variables are presented for the civil cases. Not all significant chi-squares are included in this table, as it sometimes does not make intuitive sense to include certain types of variable in the logistic regression. For example, some of the medications were significantly related to case outcome; however, it would not seem that medication would be changed relative to a court finding. Additionally, factors such as being represented by counsel or pro se do not seem to exist in the same case in reality,

so consequently pro se was eliminated from the analysis prior to the entry of these variables into the logistic regression model. In addition, several social security variables were significantly related to the case outcome, but since these would be highly correlated, only one of the social security variables was included.

In evaluating whether or not the hypotheses were confirmed, both the frequencies with which particular variables occurred in the cases and the matter of whether these related to case outcomes in terms of finding for the person with schizophrenia need to be considered. For example, the typical subject in this sample is a male in the age range of 18 to 50 who has many psychological co-morbidities – especially paranoia, and to a lesser extent anxiety and mood disorders. However, none of these variables are related to case outcomes in either the civil or criminal cases.

Co-morbidities, whether physical or psychological, are also not related to case outcome. The lifestyle of a typical person in the sample is one of a relatively low level of employment that features alcohol use, homelessness, malingering, and/or drug use. The proportion of gun ownership in the sample, at least as mentioned in the case, was half of the proportion of gun ownership in the US population. This of course does not mean that the people in question did not own a gun – just that it was not involved in the case (Hepburn, Miller, Azrael, & Hemenway, 2007). Suicide attempt(s) and/or ideation are considerably higher than found in the general United States population. However, this is compounded by the fact that the sample predominantly consists of males aged 18 to 50, who are considerably more likely to attempt suicide in the general population (see <http://suicide.org>). The drug abuse in this sample is also considerably higher than the norm in the United States population (<https://www.drugabuse.gov/publications/drugfacts/nationwide-trends>).

When examining the type of medications being used, it is important to note that

atypical (being newer) versus typical medications vary with respect to efficacy and side effects. Atypical medications, which were twice as likely to be prevalent in the civil cases as in the criminal cases, are also significant in the logistic regression model built for civil cases but not for the criminal cases. In addition, while medication compliance was involved in approximately one quarter of all cases, it is not related to the case outcomes. Moreover, it is not likely that a given medication would be prescribed or not prescribed depending on what the likely outcome of its prescription would be in court proceedings.

Most of the significant findings in the study are related to court case characteristics. The typical case in this sample is one at the federal court level where the subject was represented by counsel. A high proportion of the cases also involved pro se representation. An important case characteristic is the existence of an expert witness, either a physician, a psychiatrist, a psychologist, or a vocational expert. However, only the presence of a psychologist was found to be related to case outcome. There was also inadequate weight given to the expert in between 10% to 15% of cases.

Discussion

Significant Chi Squares and Logistic Regression Model: Civil

The reader's attention is directed to Table 3 in which Pearson chi-squares and phi coefficients for the civil cases are presented. These

cases are a subset of the total sample and n is equal to 209. Atypical medications, having counsel, malingering, a psychologist being involved in the case, and social security are significantly related to case outcomes for persons with schizophrenia. All of these variables are positively related, with the exception of psychologist involvement, which is negatively related. Not presented in the table but statistically significant is pro se, $\chi^2(60) = 4.8, p = .027, \phi = -.152$. This would mean that in cases where the individual represented himself or herself, there is a significantly negative case outcome in relation to the person with schizophrenia. The decision to exclude this is related to the fact that if counsel was involved in the case then it was not pro se.

A logistic regression analysis was developed for this subset of cases, with case outcome as the dependent variable and atypical, counsel, malinger, psychologist, and social security as the independent predictors ($n = 209$). The omnibus chi-square test of the model coefficient is 26.229, with 5 degrees of freedom, $p = .000$. The model accounts for between 11.8% (Cox and Snell R^2) and 16.7% (Nagelkirk R^2) of the variance in case outcome. Overall, the model correctly predicts 72.7% of all cases, 95.2% of cases in favor of the person not with schizophrenia and 21.9% of cases in favour of the person with schizophrenia. The reader's attention is now directed to the table portraying the variables in the equation. The first column of Table 4 gives the coefficient for each predictor variable in the model. The negative coefficients indicate that the odds in favor of

Table 3. Chi-square and phi coefficients of selected variables for the civil cases ($n = 209$).

Variable	Pearson chi-square	df	Significance	Phi coefficient
Atypical	4.449	1	.035	.146
Counsel	6.675	1	.010	.179
Malinger	3.923	1	.048	.137
Psychologist	3.479	1	.062	-.129
Social Security	5.793	1	.016	.166

finding for the individual decrease as the units of the predictor variables increase. The positive coefficients indicate that the odds in favor of finding for the individual increase as the units of the predictor variables increase. The Wald statistic in the associate significant values indicates how useful each predictor variable is. The Exp(B) column gives an indication of the change of predicted odds of finding for the person with schizophrenia for each unit change in each predictor variable.

Significant Chi Squares and Logistic Regression Model: Criminal

The reader's attention is directed to Table 5, in which the Pearson chi-square and phi coefficients for the criminal cases are presented ($n = 90$). While these are not statistically significant individually, the phi coefficient allows for discerning directionality with the outcome variable of finding for the person with schizophrenia. Being competent to stand trial, having ineffective counsel, and experiencing paranoia are all negatively related to the case outcome for a person with schizophrenia, while having a trial in the federal court and police involvement are positively related. An important observation needs to be made here: separately, the

relations of these variables to the case outcome are not statistically significant. However, when a logistic regression model is developed based on these relationships, the model allows for the prediction of case outcome in favor of the person with schizophrenia (Table 5).

A logistic regression analysis was performed with case outcome as the dependent variable and competency, federal court, ineffective counsel, paranoia and police involvement as predictor variables. All 90 criminal cases were analysed, and the full model significantly predicts case outcome (the omnibus chi-square is 15.476, $df = 5$, $p < .009$). The model accounts for between 15.8% and 26.6% (Cox and Snell R^2 and Nagelkirk R^2) of the variance in the case outcome. Overall, the model correctly predicts 85.6% of all cases, 97.3% of the cases not in favor of the person with schizophrenia, and 26.7% of the cases for the person with schizophrenia. The reader's attention is directed to Table 4 portraying the variables in the equation. The first column gives the coefficient for each predictor variable in the model, and the negative coefficients indicate that the odds of a finding for the individual decrease as the units of the predictor variables increase. The Wald statistic and the associated significant values

Table 4. Logistic regression for the civil cases ($n = 209$).

	Chi-square	df	Sig.			
Omnibus tests of model coefficients	26.229	5	0			
Cox & Snell R^2	.118					
Nagelkerke R^2	.167					
Variables in the equation						
	B	SE	Wald	df	Sig.	Exp(B)
Atypical	-0.664	0.376	3.126	1	.077	0.515
Counsel	-0.735	0.446	2.723	1	.099	0.479
Malingering	-1.039	0.614	2.867	1	.090	0.354
Psychologist	1.372	0.415	10.931	1	.001	3.944
Social Security Case	-0.750	0.370	4.104	1	.043	0.473
Constant	0.213	0.573	0.138	1	.710	1.237

Note: Variable(s) entered in Step 1 are: Atypical, Counsel, Malingering, PsyD, SocSec.

Table 5. Chi-square and phi coefficients of selected variables for the criminal cases ($n = 90$).

	Pearson	df	Significant	Phi coefficient
Competent	1.853	1	.173	-.143
Federal court	2.036	1	.154	.150
Ineffective counsel	1.440	1	.230	-.126
Paranoia	3.991	1	.046	-.211
Police involvement	-2.153	1	.142	.155

Note: Bold font denotes significant relationships.

indicate how useful each predictor variable is, while the Exp(B) column gives an indication of the change in the predicted odds of a finding for the person with schizophrenia for each unit change in each predictor variable. All values are less than 1, indicating that an increase in the value of the predictor variable is associated with a decrease in the odds of the event (Table 6).

Conclusion

Clinical Implications

There are a number of clinical implications, which involve psychologists, prosecutors and defense attorneys, misconceptions of a clinical/legal nature, substance abuse, and medication. One important finding is that involving psychologists as expert witnesses

affects the case outcome, but not other expert witnesses. The involvement of a psychologist increases the chance of finding for the person with schizophrenia. Attention should be given to how expert witnesses are involved in trials and whether psychologists might be the best expert witnesses, especially when seeking a finding for the person with schizophrenia. Clinical education should be given to both prosecutors and defense attorneys regarding clinical factors of schizophrenia, which is not only an insidious illness but manifests itself in ways that are hard to predict. This clinical education would help all parties involved in legal proceedings better understand the clinical condition of litigants with schizophrenia. Many of the misconceptions and stereotypes associated with weapons and suicide attempts are of critical concern. Also, there could be co-morbidity and poly-substance use or abuse

Table 6. Logistic regression for the criminal cases ($n = 90$).

	Chi Square	df	Sig			
Omnibus tests of model coefficients	15.476	5	0.009			
Cox & Snell R^2	0.158					
Nagelkerke R^2	0.266					
Variables in the equation	B	SE	Wald	df	Sig.	Exp(B)
Competent	0.826	0.653	1.600	1	.206	2.285
Federal court	−1.463	0.711	4.228	1	.040	0.232
Ineffective counsel	1.552	0.816	3.617	1	.057	4.719
Paranoia	1.275	0.730	3.050	1	.081	3.578
Police involvement	−1.557	0.795	3.841	1	.050	0.211
Constant	−2.736	0.898	9.272	1	.002	0.065

Note: Variables entered on step 1: Cocaine, Counsel, Disable, Ineffcoun, Paranoid, PsyD.

when the person is in court, and this could have an impact on the finding. Attention should also be given to whether the person is medication compliant at the time of appearance in court and able to assist in the court processes.

Public Policy Implications

There are several public policy implications from this study, including the need to give attention the involvement of expert witnesses discussed above. The evidence shows that even when experts are involved in cases, insufficient weight is sometimes given to their testimony. Also, given the profound nature of the mental illness of the persons, perhaps a mental health court might be a more appropriate venue. Relatedly, better scrutiny should be made of social security disability case processes to avoid litigation if possible. There are a significant number of cases that are remanded in all venues. This may not be fair to individual litigants, since organizations have considerably more resources to pursue cases that are remanded.

Research Implications

The results of this study suggest the viability of this methodology of empirical legal scholarship wherein litigated cases are used as the unit of analysis. This approach has the potential to increase understanding in court proceedings, not just involving mentally ill litigants, but also litigants who are discriminated against on many other bases. NVivo, Atlas.TI and other auto-coding programs can facilitate a more detailed understanding of litigation, overcoming some of the shortcomings of past studies. The research implications include drilling down on one or more of the variables in terms of antecedents, behaviours, medications, or court case characteristics to see if additional variables might suggest the need for additional research. The testimony of the expert witnesses might also

be analysed to understand better how it influences legal proceedings.

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