RECENT ADVANCES IN THE EMPIRICAL EVIDENCE SURROUNDING MENTAL HEALTH LAWS AND CRIME

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I. INTRODUCTION

Prior to the 1960's, no lawyer practiced mental health law because there were no mental health laws,[1] and the laws that did exist were generally "ill-defined and broad in scope and applicability."[2] This changed, however, as the legal mental health arena went through wide-sweeping changes in the 1970's and '80's.[3] These changes were realized as a result of increasing criticism in the role that mental health professionals played in treatment,[4] skepticism of professionals' use and reliance of psycho-pharmaceuticals,[5] and a general concern for the civil rights of the mentally ill and lack of recourse against involuntary commitment.[6] What resulted was a revolution,[7] of sorts, to the legal landscape of the formal practice of mental health treatment. Given the relationship between certain types of mental illness and a propensity towards violence,[8] these legal changes that

[1] PAUL S. APPELBAUM, ALMOST A REVOLUTION: MENTAL HEALTH LAW AND THE LIMITS OF CHANGE 3 (1994).

[2] Griffin Edwards, Involuntary Commitment Laws and Their Effect on Crime 3–4 (2014) (unpublished manuscript) (on file with the author).

[3] *See id.* at 4, 18–19.

[4] *See id.* at 4.

[5] Griffin Edwards, Pre-Medicated Murder: Violence and the Degree to which the Mentally Ill Can Refuse Treatment 6–7 (Nov. 2014) (unpublished manuscript) (on file with the author).

[6] *See* Edwards, *supra* note 2, at 4–5.

[7] *See generally* APPELBAUM, *supra* note 1 (the "mental health revolution" was a phrase coined by Paul Appelbaum in his book *Almost a Revolution: Mental Health Laws and the Limits of Change* though he sees the "revolution" as not actually a revolution, but a series of events that could have drastically improved the landscape and nature of mental health law but were derailed by misguided court rulings and failure to understand and implement changes based on the needs of the mentally ill).

[8] While it is not a terribly popular fact to point out due to fears of stigmatizing an important part of the population, there is a host of academic evidence that certain types of mental illness are associated with higher propensities towards violence and crime. *See* DORIS J. JAMES & LAUREN E. GLAZE, MENTAL HEALTH PROBLEMS OF PRISON AND JAIL INMATES 1, 9 (2006) (An estimated fifty percent of prison inmates have or could be diagnosed with a mental illness, and less than half of those have ever received treatment); Jeanne Y. Choe et al., *Perpetration of Violence, Violent Victimization, and Severe Mental Illness: Balancing Public Health Concerns*, 59 PSYCHIATRIC SERVICES 153, 153, 161 (2008) (nearly half of the mentally ill population has a higher propensity towards violence than the general population, finding that rates of perpetration were between seventeen and fifty percent higher amongst committed inpatients); Jeffrey W. Swanson et al., *Violence and Psychiatric Disorder in the Community: Evidence From the Epidemiologic Catchment Area Surveys,* 41 HOSP. & COMMUNITY PSYCHIATRY 761, 764–65, 768 (1990) (Swanson and his colleagues found that certain types of mental illness cause individuals to be four

drastically changed the methods by which the mentally ill are treated may have had serious implications towards violent crimes.

The relationship between the changes in these laws and their effect on violent outcomes has been largely debated but empirically unexplored, but a series of recent papers has employed modern statistical techniques and large scale panel datasets that track each US state and their law to tease out the effect of changing mental health laws on violence.[9]

In this article, I explore the three most important legal changes to the mental health system and how these laws have affected violence and crime.

II. DUTY TO WARN LAWS

A. Legal History

At the heart of mental health reform was the ruling in *Tarasoff*.[10] Prosenjit Poddar, a graduate student at the

or five times more violent than they would have been otherwise). These results have been validated by other studies, *e.g.*, Jenny Shaw et al., *Mental Disorder and Clinical Care in People Convicted of Homicide: National Clinical Survey*, 318 BRIT. MED. J. 1240, 1240–42 (1999) (where forty-four percent of people who committed homicides had some sort of psychiatric report). Similar magnitudes have been found in European countries. *See, e.g.,* Pamela J. Taylor & John Gunn, *Homicides by People with Mental Illness: Myth and Reality*, 174 BRIT. J. PSYCHIATRY 9, 12–13 (1999) (giving figures drawn from statistics in England and Wales regarding the rates of mental disorders in those convicted of homicide); Dave E. Marcotte & Sara Markowitz, *A Cure for Crime? Psycho-Pharmaceuticals and Crime Trends* 2, 7, 28, (Nat'l Bureau of Econ. Research, Working Paper No. 15354, 2010) (suggesting that persons with mental illness are twice as likely to be violent, however providing evidence that increased prescriptions for mental illness drugs cause a decrease in violence. Marcotte and Markowitz find a strong association between the widespread dispersion of mental health pharmaceuticals and reductions in violent crimes). In place of avoiding such topics, research, and associations in order to discourage stereotypes and labeling, the greatest good is probably served by open discussion and dialogue about the difficulties and byproducts of mental illness, which include, but are not limited to, a higher propensity towards violence. Conference Report, CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS, *Like a Broken Vessel* (Oct. 2013), https://www.lds.org/general-conference/2013/10/like-a-broken-vessel?lang=eng (the greatest good is probably served by exposing mental illness, as, well, an illness, and provide encouragement that "[b]roken minds can be healed just the way broken bones and broken hearts are healed.").

[9] Edwards, *supra* note 2, at 18–19; Edwards, *supra* note 5, at 18–19.

[10] *See generally* Fillmore Buckner & Marvin Firestone, *"Where the Public Peril Begins": 25 Years After Tarasoff*, 21 J. LEGAL MED. 187, 187 (2000) (noting the importance and continuing reliance upon the *Tarasoff* decision in the area of

University of California at Berkeley, regularly saw a mental health professional, discussing among other things frustration in the courting process of Tatiana Tarasoff.[11] Things escalated to the point where Poddar admitted a desire to kill Tarasoff.[12] His attending mental health professional expressed concern that Poddar may stand as a danger to himself or others to law enforcement professionals.[13] Poddar was even temporarily detained but subsequently released.[14] He was released because he "appeared rational."[15] Unfortunately, the worst case scenario happened and Poddar killed Tarasoff.[16] As a result, the family of Tarasoff sued, among others, the mental health professional on grounds that they were not warned of the danger to Tarasoff.[17]

While the ruling had large ramifications to mental health professionals, it was largely seen, at least initially, as a legal question.[18] That is, can the duty doctrine necessary for the existence of tort be applied to a third party? The California State Supreme Court and many subsequent state courts and legislatures ruled in favor of placing a duty on mental health professionals to warn potential victims of the violent threats made by patients.[19] The response from the mental health community generated a "cottage industry of commentary."[20] The initial consensus was the ruling in *Tarasoff* would be the end of effective mental health treatment[21] due to the loss of confidentiality between the mental health professional and

psychotherapy).

[11] People v. Poddar, 518 P.2d 342, 344 (Cal. 1974); Buckner & Firestone, *supra* note 10, at 192–93.

[12] Buckner & Firestone, *supra* note 10, at 193.

[13] *Id.*

[14] *Id.*

[15] Tarasoff v. Regents of Univ. of Cal., 551 P.2d 334, 339–40 (Cal. 1976).

[16] Griffin Edwards, *Doing Their Duty: An Empirical Analysis of the Unintended Effect of* Tarasoff v. Regents *on Homicidal Activity*, 57 J. L. & ECON. 321, 323 (2014).

[17] *Tarasoff*, 551 P.2d at 341.

[18] Gregory M. Fliszar, Comment, *Dangerousness and the Duty to Warn:* Emerich v. Philadelphia Center for Human Development, Inc. *Brings* Tarasoff *to Pennsylvania*, 62 U. PITT. L. REV. 201, 201 (2000).

[19] *See* Edwards, *supra* note 16, at 325 (providing a table of state duty-to-warn laws).

[20] Michael L. Perlin, *Tarasoff and the Dilemma of the Dangerous Patient: New Directions for the 1990's*, 16 L. & PSYCHOL. REV. 29, 29 (1992).

[21] Robert N. Cohen, Note, Tarasoff v. Regents of the University of California: *The Duty to Warn: Common Law & Statutory Problems for California Psychotherapists*, 14 CAL. W. L. REV. 153, 153 (1978).

patient.[22] The damaged relationship between doctor and patient would, many opined, cause at-risk patients to forego mental health treatment altogether and carry out violent tendencies that may have been treated were it not for *Tarasoff*[23] though some initial critics of *Tarasoff* eased off their stance as time passed.[24] Regardless, *Tarasoff* is regarded as the single most influential ruling surrounding mental health in the 1970's and '80's.[25]

While the laws vary by state, most states have adopted a *Tarasoff*-like duty to warn law.[26] The most critical elements of a duty to warn law are the mental health professionals named, standard of threat, standard of victim, and informed parties.[27] While generally accepted that duty to warn laws apply to mental health professionals, the standard of threat varies from "clear and immediate"[28] to a "threat of serious physical harm"[29]—suggesting that a *Tarasoff* warning is reserved for life-threatening situations. In *Thompson v. County of Alameda*[30] the standard of victim was refined to only include victims or classes of victims who could be "readily identified" and is currently the universally accepted standard across states with duty to warn laws.[31] In some states, laws allow mental health professionals to warn family members of potential victims[32] in addition to the potential victim, and in many states law enforcement professionals are also warned.[33]

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[22] *Tarasoff*, 551 P.2d at 354–55 (Clark, J., dissenting).

[23] *See* Fliszar, *supra* note 18, at 204–05; Brian D. Ginsberg, *Therapists Behaving Badly: Why the* Tarasoff *Duty Is Not Always Economically Efficient*, 43 WILLAMETTE L. REV. 31, 63–64 (2007); Alan A. Stone, *The Tarasoff Decisions: Suing Psychotherapists to Safeguard Society*, 90 HARV. L. REV. 358, 358–59 (1976).

[24] *See* Buckner & Firestone, *supra* note 10, at 216.

[25] *See, e.g.*, APPELBAUM, *supra* note 1, at 94–97 (discussing judicial, legislative, and clinicians' responses to the *Tarasoff* decision).

[26] Edwards, *supra* note 16, at 324–26.

[27] *Id.* at 324.

[28] FLA. STAT. ANN. § 491.0147 (LexisNexis 2015).

[29] ALASKA STAT. § 08.86.200 (LexisNexis 2015).

[30] Thompson v. County of Alameda, 614 P.2d 728 (Cal. 1980).

[31] *Id.* at 733–34 (citing Tarasoff v. Regents of Univ. of Cal., 551 P.2d 334, 345 (Cal. 1976); Edwards, *supra* note 16, at 326, 335.

[32] *See, e.g.,* CONN. GEN. STAT. § 52-146c (2014); D.C. CODE § 7-1203.03(a) (LexisNexis 2015); MISS. CODE ANN. § 41-21-97 (2015); N.J. STAT. ANN. § 2A:62A-16 (West 2014); OHIO REV. CODE ANN. § 2305.51 (LexisNexis 2015).

[33] *See, e.g.*, ALA. CODE § 34-8A-24 (LexisNexis 2015); ARIZ. REV. STAT. § 36-517.02 (LexisNexis 2015); LA. REV. STAT. ANN. 9:2800.2 (2015); MISS. CODE ANN. § 41-21-97 (LexisNexis 2015); MONT. CODE ANN., § 27-1-1102 (2015); NEB. REV. STAT. ANN. § 38-3132 (LexisNexis 2015); OHIO REV. CODE ANN. § 2305.51

While there are some differences in the details of each state's duty to warn law, the starkest difference is in the standard of reporting to which the mental health professional must adhere.[34] The traditional *Tarasoff* standard *requires* mental health professionals to report real and credible threats of a patient towards a victim, but a large minority of states *allow*, but do not require, a mental health professional to break doctor-patient confidentially in a manner similar to a traditional duty to warn law.[35] In these states, mental health professionals warn potential victims only at the discretion of the mental health professional.[36] Additionally, some states have referenced a duty to warn law in cases with similar, but not identical facts.[37] Figure 1 maps out each state's style of duty to warn law and origin of law, if applicable.

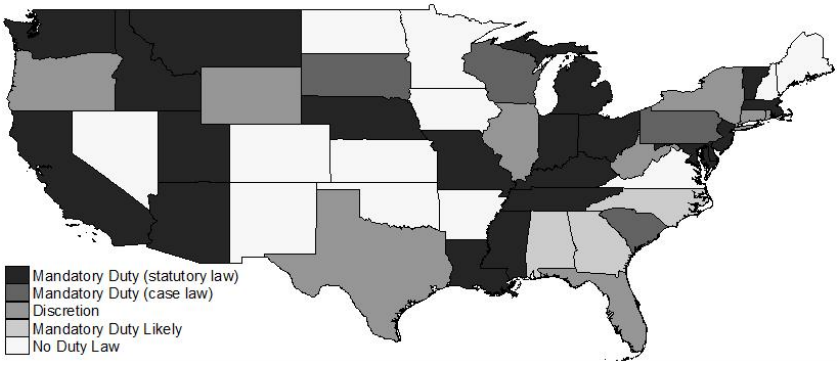

Figure 1 – Current State Duty to Warn Laws[38]

(LexisNexis 2015); OKLA. STAT. ANN. tit. 59, § 1376 (West 2015); R.I. GEN. LAWS § 5-37.3-4 (LexisNexis 2015); TEX. HEALTH & SAFETY CODE ANN. § 611.004 (West 2015); UTAH CODE ANN. § 78B-3-502 (LexisNexis 2015).

[34] *See* Edwards, *supra* note 16, at 324.

[35] *See, e.g.,* CONN. GEN. STAT. § 52-146c (LexisNexis 2015); TEX. HEALTH & SAFETY CODE ANN. § 611.004 (West 2015); Edwards, *supra* note 16, at 324 (summarizing Table 1's comprehensive list of each state's style of law).

[36] *See, e.g.,* CONN. GEN. STAT. § 52-146c (1969); TEX. HEALTH & SAFETY CODE ANN. § 611.004 (West 2015).

[37] *See* Currie v. United States, 836 F.2d 209, 213 (4th Cir. 1987); Lee v. Corregedore, 925 P.2d 324, 333 (Haw. 1996) (holding there was no duty because the court ruled that Corregedore, a veteran's affairs counselor tasked mostly with helping veterans receive government benefits, was not a mental health professional, but the text of the opinion suggests that the duty would have existed had Corregedore been a mental health professional); Anthony v. State, 374 N.W.2d 662, 668 (Iowa 1985); Bradley Ctr. v. Wessner, 296 S.E.2d 693, 696 (Ga. 1982).

[38] *See* Edwards, *supra* note 16, at 330.

While this much variation in duty to warn may frustrate mental health professionals, from the empiricist's point of view, this variation in styles of law combined with the fact that each law was passed at a different time provides a very nice opportunity to empirically measure the effect of duty to warn laws.

The results summarized throughout this work are based on a statistical modeling technique referred to as a difference-in-differences approach.[39] When trying to measure the effect of a state duty to warn law on homicides, for instance, it would be inappropriate to strictly compare California where there is a duty to warn, to Nevada where there is no duty to warn.[40] California and Nevada are very different states with a host a factors, some observable, but many unobservable that play important, albeit differential, roles in the number of homicides in each respective state. In a traditional experimental design, we would want to randomize "treatment"[41] to some states and allow other states to act as controls, but in life and public policy, laws are not randomly assigned to states. To account for this, careful thought needs be given to the appropriate control group.

In the differences-in-differences approach, there are essentially two classes of controls.[42] First, the state with the duty to warn law is compared to itself prior to enactment of the law.[43] For instance, California prior to the enactment of its duty to warn law would serve as the baseline group to which we would compare California after the law passes. Since Nevada is probably a poor baseline for California, California—prior to the passage of the law—is used as its own baseline. The major advantage of this comparison is it allows the researcher to control for state-specific, time invariant factors. That is, anything, measurable or immeasurable, that influences homicides in California that does not vary specifically to California over time will be controlled, or parsed out.

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[39] *See* Marianne Bertrand et al., *How Much Should We Trust Differences-In-Differences Estimates?,* 119 Q. J. ECON. 249, 249 (2004).

[40] *See generally id.* (explaining the methodology of difference-in-differences studies). *See also* Mark A. Rothstein. Tarasoff *Duties After Newtown,* 42 J. L. MED. & ETHICS 104, 106 & n. 26 (2014).

[41] In this context, the treatment each state would receive would be a duty to warn law.

[42] *See* Bertrand et al.*, supra* note 39, at 250–51.

[43] *See id.* at 249.

To ensure the most careful estimates possible, that same difference calculated for California is then calculated for a comparison state with no law change. There may be factors affecting the entire country that caused a change in homicides that were not specific to California, and this second difference would capture those factors. The ultimate estimate is obtained by differencing out California's difference and the control state's difference. What results is a difference in the two differences.[44]

This is the technique used almost exclusively in the empirical results discussed here. While a difference-in-differences approach has many empirical advantages, statistics by nature have an associated margin of error.[45] To address the possibility of the margin of error, empiricists use hypothesis testing to differentiate actual effects from zero.[46] Throughout this work, an effect referenced as "statistically significant" means that a hypothesis test was performed and there was sufficient evidence to suggest that the measured effect (whether positive or negative) is different from zero.

B. The Effect on Homicides

While there are studies that employ survey data to attempt to tease out the effect these *Tarasoff*, or duty to warn laws, had on mental health professional behavior,[47] only recently has work been done exploring the relationship between homicides and duty to warn laws. The ruling in *Tarasoff* and subsequent cases was met with a "cottage industry of commentary,"[48] most of which was critical of the decision.[49] Fearing that *Tarasoff* would damage doctor-patient confidentiality, and understanding the essential role confidentiality has in extracting sensitive information,[50]

[44] *See id.* at 249–50.

[45] *See id.* at 250.

[46] *See id.* at 256.

[47] *See, e.g.,* Daniel J. Givelber et al., *Tarasoff, Myth and Reality: An Empirical Study of Private Law in Action,* 1984 WIS. L. REV. 443, 448; Toni Pryor Wise, *Where the Public Peril Begins: A Survey of Psychotherapists to Determine the Effects of Tarasoff*, 31 STAN. L. REV. 165, 167, 172–73 (1978).

[48] Perlin, *supra* note 20, at 29–30.

[49] *See, e.g.,* APPELBAUM, *supra* note 1, at 79, 84, 89; Cohen, *supra* note 21, at 153–54; Stone, *supra* note 23, at 358–59.

[50] *See* Griffin Edwards, *Tarasoff, Duty to Warn Laws, and Suicide*, 34 INT'L REV. L. & ECON. 1, 1 (2013) (discussing the role confidentiality plays in eliciting honest response concerning sensitive topics. In particular, there is some fairly strong evidence that simple reassurances such as "it's okay, I'm not allowed to discuss anything you say in this counseling session" has a sizeable effect on a

many feared requiring mental health professionals to report the violent intentions of their patients would create a perverse incentive for patients to withhold violent thoughts and tendencies.[51] This fear was, at least in part, observed by mental health professionals who reported a noticeable decrease in patients' willingness to discuss sensitive information post-*Tarasoff*.[52] In the absence of a safe outlet to discuss violent tendencies and thoughts, is it possible that these violent thoughts turn to violent actions?

Using a difference-in-differences approach, Edwards estimated the effect of state duty to warn laws on homicide rates and found that states that pass "mandatory" duty to warn laws are associated with about a five percent increase in homicides even after controlling for a myriad of factors that influence homicide rates.[53] This effect persists and is actually stronger when looking at the correlation between state duty to warn laws and non-stranger homicides.[54]

While Edwards is able to identify a statistical relationship between "mandatory" duty to warn laws and homicide rates, there is less evidence of the relationship between "discretionary" duty to warn laws and homicide rates.[55] The estimated relationship is positive, meaning that even allowing mental health professionals the discretion to warn potential victims of the possible violent behavior of a patient is associated with an increase in homicides, but the estimate is statistically

patients willingness to discuss sensitive topics such as engagement in risk behaviors).

[51] *See* Fliszar, *supra* note 18, at 204–05; Ginsberg, *supra* note 23, at 66; Stone, *supra* note 23, at 358–59, 367.

[52] Surveys of mental health professionals published across decades seem to confirm this behavior. D.L. Rosenhan et al., *Warning Third Parties: The Ripple Effects of Tarasoff*, 24 PAC. L.J. 1165, 1166–67, 1190–91 (1993); Wise, *supra* note 47, at 166, 171, 176 (finding that eighty percent of therapists noticed a change in patient willingness to discuss sensitive information).

[53] These factors include state level demographic variables—such as race, age, gender, education, and religiosity—political variables—such as the party divide in state congresses, gubernatorial political affiliation, method of selection and retention of judges, controls for other mental health policies such as mental health insurance mandates and laws surrounding medical malpractice, and other variables that capture any state specific time in varying factors, and any national trends. Edwards, *supra* note 16, at 321, 330–31, 334–37.

[54] Recall that one of the key factors in a duty to warn law is that the victim, or class of victims, must be named. It thus stands to reason that the effect *should* be more marked once identifying only non-stranger homicides. *See* Edwards (2014) for further discussion. *Id.* at 337–38.

[55] *See id.* at 331.

insignificant.[56] This suggests that the true relationship remains unknown.[57] While these results seem to validate the concerns voiced by mental health professionals, and carry with them important public policy implications, there may also be reason to believe the ripple effect of *Tarasoff* extends beyond violence and homicides to the mental health community in general.[58]

C. Implications for Suicides

While the mental health statute of a state may be hard to define, some have argued that suicides may be the best single metric of the mental health of a state[59] as virtually all suicides sprout from a mental health disorder.[60] If *Tarasoff* had such a dire effect on effective mental health treatment as was initially suggested,[61] and we believe suicides stand as a decent metric for measuring the mental health status of a state, we should observe that duty to warn laws affect suicides.

There are couple avenues by which we may observe an effect of duty to warn laws on suicides.[62] First, there is some, but not an entirely uniform, precedent that requires mental health professionals to warn the parents of a minor threatening suicide as if it were a *Tarasoff* scenario.[63] While far from generally accepted practice, just the threat of possible liability may alter the doctor patient relationship when a teen mental health patient is involved and result in a similar adverse effect on teen suicides as is observed in homicides. That is, the doctor fears liability if

[56] *See id.* at 337–38.

[57] In statistical jargon, we fail to reject the null hypothesis that there is no relationship between discretionary duty to warn laws and homicide rates. Failing to reject the notion that no relationship exists is different from accepting the notion that no relationship exists. From a researcher's point of view, we can only say that we lack the evidence to say that no relationship exists. *See generally id.* at 337.

[58] At one point, *Tarasoff* was predicted to be the end of mental health treatment. *See* Edwards, *supra* note 50, at 1–2; Stone, *supra* note 23, at 358, 371.

[59] Edwards, *supra* note 50, at 3–4.

[60] ASSESSMENT AND PREDICTION OF SUICIDE 10 (Ronald W. Maris et al. eds., 1992); Ronald W. Maris, *How Are Suicides Different?*, *in* ASSESSMENT AND PREDICTION OF SUICIDE 65, 65 (R. W. Maris et al. eds., 1992).

[61] *See* Stone, *supra* note 23, at 358, 377.

[62] Edwards, *supra* note 50, at 2–3.

[63] *See id.* at 4 n.26 (citing Brooks v. Logan, 903 P.2d 73 (Idaho 1995); Jacovis v. United Merch. Corp., 11 Cal. Rptr. 2d 468 (Cal. Ct. App. 1992)) for two examples of court cases where mental health professionals have been held liable for not warning the parents of a teen who committed suicide prior to the suicide.

the teen commits suicide and thus informs the teen about his intentions to warn the parents if threats of suicide are made, the teen responds predictably by being less willing to discuss suicidal thoughts,[64] and untreated suicidal thoughts lead in some cases to execution of suicide.[65] If this chain of events does happen in practice, we should observe a relationship between duty to warn laws and state level suicide rates of teens.

While it may be that duty to warn laws effect teen suicide rates directly, if duty to warn laws damage confidentiality and the practice of mental health treatment generally, we should observe an indirect adverse effect through a relationship between adult suicide rates and duty to warn laws. Generally, duty to warn laws do not apply when the deceased is an adult,[66] but if these laws really damaged the core of the mental health system, we may observe a spike in adult suicides after the implementation of a duty to warn law.

Using a similar statistical method as described previously, Edwards finds that the passage of a duty to warn law is associated with about a nine percent increase in teen suicides.[67] This suggests that about three teen suicides per state per year can be attributed to the direct altering of the doctor-teen patient relationship.[68] In contrast however, no such relationship exists between duty to warn laws and the adult suicide rate.[69] Depending on the specifics of the statistical specification, the relationship varies between increasing and decreasing adult suicides.[70] This, coupled with the lack of statistical significance,

[64] This again is in line with research on the role that confidentiality plays on extracting sensitive information, especially among teens. *See* Carol A. Ford et al., *Influence of Physician Confidentiality Assurances on Adolescents' Willingness to Disclose Information and Seek Future Health Care. A Randomized Controlled Trial*, 278 J. AM. MED. ASS'N 1029, 1029, 1033 (1997).

[65] *See generally* ASSESSMENT AND PREDICTION OF SUICIDE, *supra* note 60, at 10–11.

[66] *See* Edwards, *supra* note 50, at 3.

[67] *Id.* at 5–6.

[68] *See id.* at 7.

[69] *Id.* at 6–7.

[70] *See id.* at 6–7. The various statistical specifications include how the law is coded as starting and the inclusion of state specific time trends. Most all state level data is collected and reported annually, but laws are never passed on January 1st. This poses a problem to the researcher about how to designate when the law starts. For instance, if the law has an effective date of May 13, 1985, should we count 1985 as the first year that had the law, or should we wait until 1986? The former over-counts the reach of the law, and the later under-counts. It is unclear which is the most appropriate coding of the law, so

provides pretty strong evidence that duty to warn laws did not have an effect on the adult suicide rate and on the mental health industry in general—to the extent that we can extrapolate this from the adult suicide rate.[71]

While *Tarasoff* is often regarded as the most important change to the legal landscape of mental health treatment, it represents only one part of the larger mental health picture.[72]

III. INVOLUNTARY COMMITMENT

A. Policies and Procedures

A significant concern among mental health advocates in the 1960's and '70's was the control mental health professionals had over the mentally ill to commit a patient to a mental health facility indefinitely.[73] Too much trust, some argued, was being placed in the professional opinions of mental health professionals with regards to involuntary commitment procedures.[74] These concerns, coupled with the generally poor conditions of mental health facilities[75] and the use and/or abuse of mental health medications led to legal changes that sought to clearly define the length and scope of involuntary commitment in addition to the procedure by which mental health professionals involuntarily committed patients.[76]

The first attempt to regulate mental health professionals and involuntary commitment, the Lanterman-Petris-Short (LPS) Act,

Edwards (2013) reports both results. The other specification deals with including state specific time trends. State specific time trends are essentially just a variable that is specific to each state and increases by one each year. The purpose of this is to try and capture any otherwise unobservable state specific factor that is trending within the state and is unique to each state. Recall that while year fixed effects has a similar effect at capturing national level trends, state specific time trends are useful when there may be some reason to believe something like a state sentiment towards mental health may be altering disproportionately by state and at different times. *Id.* at 5–7.

[71] *See id.* at 6–7.

[72] *See* APPELBAUM, *supra* note 1, at 12, 77; Douglass Mossman, *Critique of Pure Risk Assessment or, Kant Meets Tarasoff*, 75 U. CIN. L. REV. 523, 524 (2006).

[73] APPELBAUM, *supra* note 1, at 28–29.

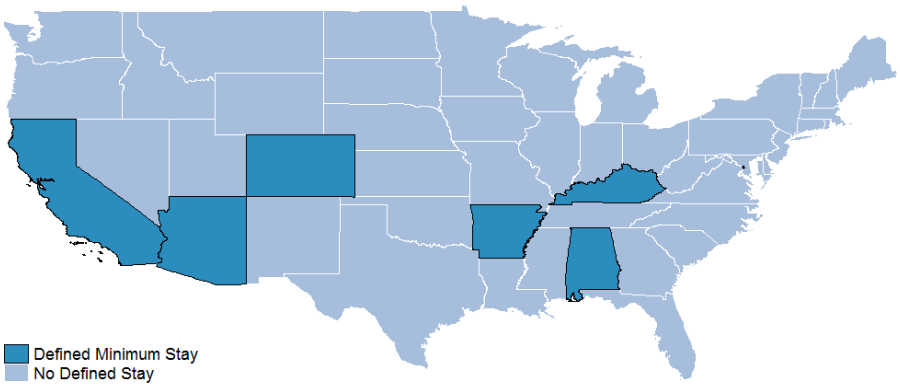
[74] *See generally id.* at 20, 48 (describing how the decision to commit someone was left almost entirely to the family or mental health professionals).

[75] *See id.* at 114–15.

[76] *See id.* at 48, 127; *see also* CAL. WELF. & INST. CODE § 5001 (West 2014) (demonstrating legislative intent to address a connection between the treatment of alcohol abuse and mental illness).

was passed in California in 1969.[77] With the purpose to end the indefinite and poor treatment of the mentally ill, the LPS Act represents the first of many state laws that dictate the procedure by which a mental health professional involuntarily commits an individual, and the maximum length of time an individual may be involuntarily committed.[78]

While the procedures vary state to state, most states require a hearing prior to commitment in which the patient may present a case against commitment.[79] Some states stipulate the use of involuntary commitment in emergency situations,[80] but most states explicitly state the maximum number of days a patient can stay in a mental health facility.[81] Additionally, a handful of states have stipulated, in addition to maximum stays, required minimum stays following commitment.[82] That is, a specified number of days an involuntarily committed patient *must* stay in the facility.[83] Figure 2 shows the spatial distribution of minimum stay laws in the United States.



[77] WELF. & INST. CODE § 5001.

[78] *See, e.g.*, 405 ILL. COMP. STAT. ANN. 5/3-813 (West 2015); MINN. STAT. ANN. § 253B.13 (West 2015).

[79] *See* N.C. GEN. STAT. ANN. § 122C-271 (West 2015); VA. CODE ANN. § 37.2–814 (West 2015).

[80] *See generally* Edwards, *supra* note 2, at 2 ("[T]he general premise affords mental health professionals the ability to recommend temporary detainment of patients who, in the opinion of the mental health professional, pose a serious and real threat.").

[81] *See id.* at 18–19 (providing a complete list of each state and its maximum length of stay law).

[82] *See id.* at 5, 18–19.

[83] *Id.* at 5.

Figure 2 – Current State Minimum Stay Laws[84]

In contrast to the outcry created by duty to warn laws, reforms to involuntary commitment laws were much more kindly received by the industry[85] though they were still met with some criticism.[86]

B. Deterring Violence

The concern was likely based in a fear that involuntarily committing a patient alters the doctor-patient relationship and damages the trust the patient has in the doctor.[87] From the doctor's point of view, she must weigh the benefits of temporarily detaining a patient against the costs of losing or potentially losing the trust of the patient and forfeiting future treatment.[88] Said another way, involuntary commitment essentially incarcerates[89] patients, but that may come at the cost of foregone rehabilitation.[90]

With regards to maximum stay laws, it is unclear what the effect would be, if any, on violence and crime. The average maximum length of stay is around a year,[91] and these laws serve as an upper bound that may never actually be achieved. Minimum stay laws, on the other hand, are binding in probably

[84] *Id.* at 29. "Not pictured here, Alaska has a defined minimum stay law and Hawaii does not. Additionally, the District of Columbia does have a defined minimum stay law." This map was generated using data originally collected and reported in Figure 1. *Id.*

[85] *Id.* at 2–3. This may be due, at least in part, to the nature of the reforms of each respective law. Duty to warn laws generally created more work and liability for the mental health professionals while the reforms to involuntary commitment generally created less liability and work for mental health professionals. The hope of the industry was mental health facilities were treated much more like traditional hospitals in that only people who need care show up to the front doors. *See generally* APPELBAUM, *supra* note 1, at 94–97 (explaining that under duty to warn laws therapists felt they had an unfair burden to protect victims, which the author identifies as an unfair burden, but now that therapists can seek involuntary commitment their obligations are largely discharged, which reduces the burden).

[86] Edwards, *supra* note 2, at 4.

[87] *Id.* at 6.

[88] *Id.* at 5.

[89] "Incarcerates" in the general sense that the patient is no longer able to operate freely in society during their stay at the mental health facility.

[90] Forfeiting rehabilitation for the benefit of incapacitation assumes, of course, that no rehabilitation occurs in the mental health facility, which is probably not the case.

[91] *See* Edwards, *supra* note 2, at 20 (look to Table 2 for the mean number of days under maximum stay laws).

many more cases. The extent to which minimum stay laws have any effect on crime is theoretically a little muddy though. On one hand, we would expect the incarceration effect and the in-facility rehabilitation effect to reduce violence, but the foregone treatment not received by the mental health professional may increase violence.

A recent empirical analysis of these effects found that minimum stay laws are associated with a reduction in violent crime rates, homicides and to a lesser degree, assault rates.[92] The most robust results are found in homicide rates where a state would decrease homicides by about one every other year if the state were to enact a typical minimum stay of three days.[93] This result is statistically significant and robust to a host of statistical factors.[94] Evidence presented by looking at the raw trends in homicide rates for each group of states provides further verification that minimum stay laws probably play an important role in deterring homicides.[95] No such evidence exists when

[92] *Id.* at 25–27.

[93] *Id.* at 11–12.

[94] *Id.* at 11. The statistical modeling technique in this paper is slightly different from the others discussed here in that it is not quite a difference-in-differences approach, but still maintains the inclusion of state fixed effects, year fixed effects, a host of other controls and state specific time trends though it is still a working paper and the published paper may eventually vary slightly from the current version. One specific concern that this paper addresses is the degree to which a minimum stay law may have been influenced by some unobserved factor not captured by state fixed effects, year fixed effects and state specific time trends. Granted, it seems that very little conceivable unobserved factor would not be controlled for with a combination of those three included types of variables, but nonetheless, this paper attempts to address this issue by trying to use existing crime rates to predict the uptake of a law. The concern is that the measured effect is not actually due to the law but rather to the attitude of state lawmakers at the time, which would make it difficult to attribute a decrease in crime to a law when it could just be the general sentiment of the lawmakers that is driving the reduction in crime. The argument presented in this paper is that if lawmakers were acting out of a specific sentiment towards crime they would have to observe, or at least partially observe crime rates over time. If this were true, then previous years' crime rates would be correlated with the passage of a minimum stay law, for instance. Tables 3 and 4 in this paper report the results of this test. *Id.* at 21–24. While the Tables may be onerous, the take away is that across statistical specifications it does not appear that minimum or maximum stay laws were passed *in response* to crime rates. Thus, if existing crime rates were not a factor in passing the laws, the laws were probably passed for reasons outside of a desire to affect change in crime. This, for a statistical point of view, is an important distinction to make as it makes the case that the results are unbiased and can generally be trusted. *Id.*

[95] *Id.* at 12, 30. Looking at raw trends in homicide rates can be misleading because each state passed their minimum/maximum stay laws at different

trying to identify the role maximum stay laws play on violence and crime. Unlike minimum stay laws, the reported results of maximum stay laws vary in size of effect and direction of effect.[96]

The evidence presented suggests that minimum stay requirements for involuntarily committed patients probably works to decrease homicides, and there is no such evidence regarding any role maximum stay laws have on violence.

C. The Non-Effect on Suicides

It would stand to reason that since there is evidence that mental health laws can affect suicides,[97] and certain types of interventions to discourage suicides have proven effective,[98] that minimum stay laws may play a role in discouraging suicides. However, replicating the analysis of Edwards that found a negative relationship between homicide rates and minimum stay laws yields no clear story about the relationship between suicides and minimum or maximum stay laws.[99] There are a number of theoretical and statistical reasons why this may be the case.

While crime data, including homicide rates, exists starting in the 1930's[100] and is readily available, the most accurate suicide

times. Figure 2 attempts to alleviate this by altering the data so that the time trend of homicides is centered on the year the law is passed. We then observe two trend lines: one tracks the homicide rates of states that passed minimum stay laws, and the other tracks the trend line of states that only passed maximum stay laws. Prior to the law's enactment, we see that both lines appear more or less parallel, that is, they are trending in a similar fashion, which suggests that they are probably pretty comparable. After the minimum stay laws pass, we see a huge drop in the homicide rates of states with minimum stay laws and converge to similar rates as the control states, i.e. the states that only passed maximum stay laws. *Id.* at 30.

[96] *Id.* at 25–27. In Table 6 the effect of maximum stay laws on homicide rates is negative when controls are not included—meaning maximum stay laws discourage homicides—but is positive when controls are included—meaning maximum stay laws encourage homicides. This sort of ambiguity coupled with a complete lack of statistical significance casts severe doubt to a researcher's ability to identify any relationship. Saying the relationship could be positive, negative or zero (no relationship) is a nice way of saying we know absolutely nothing about the true relationship which is an equivalent way of saying we fail to reject the null hypothesis of no relationship. *Id.* at 26.

[97] Edwards, *supra* note 50, at 1, 4.

[98] Georgina Cox et al., *Interventions to Reduce Suicides at Suicide Hotspots: A Systematic Review*, 13 BIO. MED. CENT. PUB. HEALTH 1, 4, 9 (2013).

[99] Edwards, *supra* note 2, at 26. While the results are not expressly reported here, they are available upon request.

[100] *See id.* at 7–8 (providing a more detailed description of the crime data).

data does not begin until the 1980's.[101] This causes statistical concern since many minimum and maximum stay laws were enacted prior the 1980's[102] and may be at the root of why no statistical relationship is found.[103]

Another explanation for the divergent results between homicides and suicides may be based in the make-up of those most likely to commit suicide.[104] The decision to commit homicide[105] can be very different from the decision to commit suicide[106] and may explain, at least in part, the absence of any sort of relationship between minimum stay laws and suicides. Another part of the story may deal with the treatment and medications received once committed.

IV. RIGHT TO REFUSE MEDICATION

A. Legal History

Part of the bigger picture of the mental health revolution was the conversation surrounding the degree to which patients should be forced to take medications.[107] This issue was prominently put on display beginning in the 1970's surrounding Boston-area

[101] This data comes from checking the cause of death on a death certificate and is compiled and reported by the Centers for Disease Control. *See* Edwards, *supra* note 50, at 2, 4–5 (providing an explanation of the data, and the fact that since the data referenced is collected from the Center for Disease Control's WISQARS database and the National Center for Health Services, this allows for the inference that the data is collected with accuracy).

[102] Edwards, *supra* note 2, at 18–19. The specific concern, as mentioned previously, is that the best statistical analysis comes from comparing a state to itself prior to enacting the law. Without reliable data tracing back before the laws are passed, the empirical model suffers. *See* Bertrand et al., *supra* note 39, at 249–50.

[103] Even parsing the data by gun related and non-gun related suicides provides no interesting results. In some specifications maximum stay laws are found to encourage suicides, in others discourage. A similar story is true for minimum stay laws, and in neither case is anything consistently statistically significant. *See supra* Part III.

[104] Chia-Ming Chang et al., *Gender Differences in Healthcare Service Utilisation 1 Year Before Suicide: National Record Linkage Study*, 195 BRIT. J. PSYCHIATRY 459, 459–60 (2009) (describing the gender differences in those who commit suicide).

[105] Taylor & Gunn, *supra* note 8, at 11.

[106] David A. Brent et al., *Psychiatric Risk Factors for Adolescent Suicide: A Case-Control Study*, 32 J. AM. ACAD. CHILD & ADOLESCENT PSYCHIATRY 521, 521, 523, 526 (1993).

[107] *See, e.g.,* Rogers v. Okin, 478 F. Supp. 1342, 1352 (D. Mass. 1979).

mental health facilities.[108] The facilities were in poor condition, underfunded, and frequently described as bleak.[109] Those committed to Boston State Hospital were met with the stench of sewage due to outdated pluming, cockroach infestations, and large plots of weed-ridden facilities with emerging slums surrounding the facility.[110] In place of being "treated," patients were "warehoused" in facilities where the feeling was much more like a prison state than rehabilitation.[111] While the deterioration of mental health facilities in the 1970's was the result of a host of factors,[112] one that played an important role was the advancement of psycho-pharmaceuticals.[113]

Recent changes to mental health medications made great strides in suppressing hard to control symptoms often associated with mental illness, and especially severe mental illness,[114] that include hallucinations and in many cases gave patients the ability to communicate and reason who were previously unable to do so.[115] These medications, unfortunately, came with side effects that could be very harsh and disturbing.[116] The "prison state" of mental health facilities was further exacerbated by the common use of force to administer drugs when a patient, even a voluntarily admitted patient, refused medication.[117] Additionally, there was concern that medications were used not for therapeutic purposes but rather to act as a sedative to control patients.[118]

All these concerns came to head in the case of *Rogers v. Okin*[119] in which seven named plaintiffs filed suit against Boston State Hospital for the right to refuse treatment claiming that forced medications, among other things, prohibited their constitutional right to free speech.[120] Longstanding common law suggested all

[108] APPELBAUM, *supra* note 1, at 114.
[109] *Rogers*, 478 F. Supp. at 1352, 1356–57.
[110] APPELBAUM, *supra* note 1, at 115.
[111] *Id.* at 114.
[112] *See id.* at 12, 114–15, 118.
[113] *See id.* at 115.
[114] Edwards, *supra* note 5, at 6.
[115] APPELBAUM, *supra* note 1, at 115.
[116] *Id.* at 115–16. *See generally* Nathan S. Kline, *Psychopharmaceuticals: Effects and Side Effects*, 21 BULL. WORLD HEALTH ORG. 397, 402–03 (1959) (discusing the side effects of psyscho-pharmaceuticals).
[117] APPELBAUM, *supra* note 1, at 115.
[118] *Id.* at 115–16; *see also* Edwards, *supra* note 5, at 6.
[119] *See* 478 F. Supp. 1342, 1352 (D. Mass. 1979); APPELBAUM, *supra* note 1, at 122.
[120] *Rogers*, 478 F. Supp. at 1352, 1354, 1366–67.

adults of sound mind had, the "right to determine what shall be done with his own body;"[121] but this had never applied to mental health. The presumed rationale was that those who were unfit to operate in society without mental health intervention were unfit to make decisions surrounding medications.[122] Additionally, there had been a noticeable reluctance for the courts to intervene with the operation of American mental health hospitals.[123] This reluctance seemingly ended with the ruling in *Rogers*.[124] The judge ruled that any competent patient had the Constitutional right to refuse treatment and that competence was presumed unless proven otherwise.[125] This ruling established the burden of responsibility to prove incompetence on mental health professionals but did also stipulate conditions under which the right to refuse treatment could be overridden.[126] These conditions include emergency situations where there is a real physical threat to the patient, other patients, or staff members.[127] This ruling was predictably challenged in the United States Court of Appeals and eventually in the United States Supreme Court but neither court rendered any opinion that had any substantive deviations from the lower court opinion.[128]

In the absence of a firm Supreme Court decision regarding *Rogers*, most states enacted a right to refuse policy though the approaches vary state to state.[129] Of states that have passed right to refuse laws, the most common approaches have been described as a treatment-driven or a rights-driven model.[130] States with a treatment-driven model for the right to refuse medication focus on the need to treat the patient and provides for review of a request to refuse medication by either the associated professional or independent review.[131] Who reviews the appropriateness of the

[121] *Id.* at 1368; Schloendorff v. Soc'y of N.Y. Hosp., 105 N.E. 92, 130 (N.Y. 1914); APPELBAUM, *supra* note 1, at 117–18.
[122] *Rogers*, 478 F. Supp. at 1371.
[123] *Id.* at 1370–71.
[124] *Id.* at 1371.
[125] *Id.* at 1364, 1368.
[126] *See id.* at 1361, 1365.
[127] *Id.* at 1365.
[128] *See generally* Mills v. Rogers, 457 U.S. 291 (1982); Rogers v. Okin, 634 F.2d 650 (1st Cir. 1980).
[129] *See* Edwards, *supra* note 5, at 7.
[130] *Id.*; *see* Paul S. Appelbaum, *The Right to Refuse Treatment With Antipsychotic Medications: Retrospect and Prospect*, 145 AM. J. PSYCHIATRY 413, 414 (1988).
[131] *See* Appelbaum, *supra* note 130, at 415.

medication in a treatment-driven state represents the only real variation in the treatment-driven approach.[132]

In contrast, the rights-driven approach, adopted by many states, focuses on the patient's inherent rights to refuse medication provided competence.[133] Variations in the rights-driven approach aim to map out who reviews competence and the appropriateness of the medication.[134] Some states require an independent clinical review of the appropriateness of the medication and the patient's competency,[135] other states only commit individuals after having proven incompetency—at which point no further review of medication is required[136]—and a third class of rights-driven states review, based on incompetence, the appropriateness of the medication, the competency of the patient, and the patients best interests.[137]

While these differences across states are very important in the clinical application of right to refuse laws, some have argued that practically these laws can be boiled down to whether or not a patient's request to refuse treatment is reviewed or not.[138] The geographical distribution of laws can be seen in Figure 3.

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[132] OR. REV. STAT. ANN. § 426.385 (West 2015); Johnson v. Silvers, 742 F.2d 823, 825 (4th Cir. 1984); Project Release v. Prevost, 551 F. Supp. 1298, 1309 (E.D.N.Y. 1982), *aff'd*, 722 F.2d 960 (2d Cir. 1983); Anderson v. State, 135 Ariz. 578, 585 (Ariz. Ct. App. 1982); *see also* MINN. STAT. ANN. § 253B.03 (West 2015); Stensvad v. Reivitz, 601 F. Supp. 128, 131 (W.D. Wis. 1985) (treatment driven approach boils down to circumstances where the request to refuse treatment is left to the discretion of the patient's doctor or overseeing agency); R.A.J. v. Miller, 590 F. Supp. 1319, 1322 (N.D. Tex. 1984) (reviews of request to refuse are made by an independent party); Rennie v. Klein, 476 F. Supp. 1294, 1308 (D. N.J. 1979); *see, e.g.*, ARIZ. REV. STAT. ANN. § 36-513 (2014); GA. CODE ANN. § 37-3-163 (West 2011).

[133] *See* Appelbaum, *supra* note 130, at 415.

[134] *See id.* at 415–16.

[135] Opinion of the Justices, 123 N.H. 554, 562 (N.H. 1983); *see* Davis v. Hubbard, 506 F. Supp. 915, 939 (N.D. Ohio 1980); *California Consent Decree Gives Right to Refuse Antipsychotic Medication*, 7 MENTAL DISABILITY L. REP. 436, 437–38 (1983); *e.g.*, United States v. Leatherman, 580 F. Supp. 977, 980 (D.D.C. 1983).

[136] *See* WASH. REV. CODE § 71.05.240 (LexisNexis 2015); A.E. v. Mitchell, 724 F.2d 864, 866 (10th Cir. 1983); Colyar v. Third Judicial Dist. Court for Salt Lake Cnty., 469 F. Supp. 424, 431 (D. Utah 1979).

[137] People v. Medina, 705 P.2d 961, 974 (Colo. 1985); Rogers v. Comm'r of Dep't of Mental Health, 390 Mass. 489, 500 (1983); *see In re* K.K.B., 609 P.2d 747, 750 (Okla. 1980); Marc Charmatz, *Rights in Treatment/Habilitation Facilities*, 11 MENTAL & PHYSICAL DISABILITY L. REP. 325, 327 (1987).

[138] *See* John A. Kasper et al., *Prospective Study of Patients' Refusal of Antipsychotic Medication Under a Physician Dscretion Review Procedure*, 154 AM. J. PSYCHIATRY 483, 484 (1997).

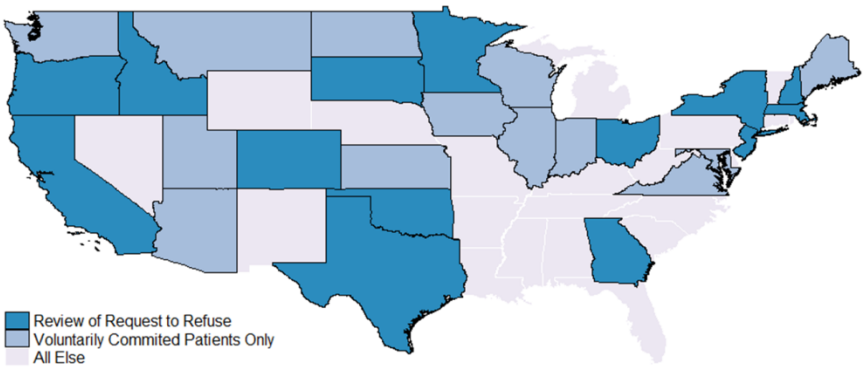

Figure 3 – Current State Right to Refuse Laws[139]

"The rights- and treatment-driven approaches apply exclusively to involuntarily committed patients" and it is generally accepted that states with rights—or treatment-driven approach also extends the right to refuse medication to voluntarily committed patients "but a number of other states have made stipulations for [only] voluntarily committed patients to refuse medication[140] [while] a few states have done nothing."[141]

Returning to *Rogers*, the response from mental health practitioners was critical, harsh and much more doomsday-ish than the response to involuntary commitment laws and maybe even worse than the response to *Tarasoff*.[142] The ruling in *Rogers* was described by the president of the American Psychiatric Association as "'probably the most impossible, ill-considered judicial decision . . . .'"[143] In an *amicus* brief, that same American Psychiatric Association argued that allowing patients the right to

[139] Edwards, *supra* note 5, at 32.

[140] *See id.* at 8, 18–19 for a complete list of these states.

[141] *Id.* (working paper at 8 & n.8) ("There were a few additional states where the right to refuse law was unclear. Those states are Hawaii, Mississippi, Nebraska, Nevada, New Mexico, North Carolina and Rhode Island. In the [initial results discussed] here, these states are include[d] as controls, though the results are completely insensitive to the exclusion of these states.").

[142] *See* Lisa A. Callahan & Dennis R. Longmire, *Psychiatric Patients' Right to Refuse Psychotropic Medication: A National Survey*, 7 MENTAL DISABILITY L. REP. 494, 494, 498 (1983); Jennifer Fischer, *A Comparative Look at the Right to Refuse Treatment for Involuntarily Hospitalized Persons with a Mental Illness*, 29 HASTINGS INT'L & COMP. L. REV. 153, 166–67 (2006).

[143] APPELBAUM, *supra* note 1, at 124.

refuse treatment would set into action a series of events that would "destroy the psychiatric hospital."[144] The basic argument behind the backlash *Rogers* received was based on the very nature of involuntary commitment.[145]

An individual who was a danger to himself and/or society, such so that required *forcing* care through involuntary commitment, had already displayed a strong willingness to refuse care. If the patient were open to the idea of mental health care, he would have not had to be forced into a facility. Giving the mental health professional the ability to force an individual into a facility, but then dictating the manner in which they were able to operate as a professional once the individual was committed seemed restrictive and counter-intuitive to many professionals.[146]

Given the right to refuse medications, a possible next step, some opined, in the slippery slope would be to refuse any treatment, including commitment, altogether.[147] If this were the case, violence would increase, few psychiatrists would agree to work in mental health facilities, and hospitals would mirror even more closely prisons, with seclusion and isolation as a result of rampant violence, than hospitals.[148]

B. Implications on Crime Rates

Thus, the link between medication and violence seems straightforward. Previous work found a reduction in violent crime rates as the amount of psycho-pharmaceuticals dispensed increased.[149] Additionally, others have found a relationship

[144] *Id.* at 124–25.

[145] *Id.* at 125.

[146] *Id.* (An additional concern that may be posed is how the law seems to be wildly inconsistent about the patient's ability to make informed decisions. The nature of involuntary commitment suggests the state's acceptance of the fact that the individual is not able to make wise and prudent life decisions—a decision like committing oneself into a facility—but *Roger* then says that conceivably the very same individual who lacked the wherewithal to self-commit into a facility all of the sudden gains prudent decision making skills with respect to the appropriateness medications. In the absence of any really strong stance one way or the other, states should be, at the very least, consistent across civil commitment laws and refusal of medication. That is, we both protect individual liberties by disallowing involuntary commitment and offer the right to refuse medication, or sacrifice individual liberties both in the realm of civil commitment and the right to refuse medications).

[147] *Id.* at 125–26.

[148] *Id.* at 126.

[149] *See* Marcotte & Markowitz, *supra* note 8, at 34–36.

between increased levels of violence and medication noncompliance,[150] but the relationship between medication laws and violence may be less obvious.[151]

A patient's right to refuse, or at least petition refusal, may affect crime in a number of ways. First, it may be possible that the lack of trust in mental health professionals that comes from *Tarasoff* laws[152] may be regained, at least in part, by allowing a patient the chance to at least have an independent party review the necessity of medications. Whereas *Tarasoff* may have damaged the patient's view of the mental health system, allowing the right to refuse medication may increase trust in the system. While it would be difficult to accurately measure the effect and magnitude of each law on patient trust in doctors and mental health care in general, there is no reason to believe right to refuse laws wouldn't bolster confidence.

Increased confidence on the part of the patient towards the doctor and the mental health system generally could have really useful implications on violence and crime. A patient who is more trusting of his doctor is more likely to accept counsel, treatment, and maybe even commitment.[153] Allowing a patient to refuse medication may actually increase medication compliance by allowing the patient the ability to stop taking medication at any time. This is akin to a "cancel close" in sales where the salesperson offers, or reminds, the buyer of the opportunity to return the product or cancel the service after the sale is complete.[154] While frequently seen as a sales method of last resort,[155] it still can be effective because returning a product or canceling a service usually comes with some sort of time commitment or other cost that acts as a barrier to voiding the transaction.[156] Right to refuse laws that require independent review of the appropriateness of the medication may serve as an analogous barrier to cancelling medication while still encouraging patient confidence in the system.

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[150] Marvin S. Swartz et al., *Violence and Severe Mental Illness: The Effects of Substance Abuse and Nonadherence to Medication*, 155 AM. J. PSYCHIATRY 226, 227 (1998).

[151] *See id.*

[152] *See* Edwards, *supra* note 5, at 4.

[153] *See* Ford et al., *supra* note 64, at 1029.

[154] This insight comes from personal experience as a door-to-door salesman.

[155] This insight comes from personal experience as a door-to-door salesman.

[156] This insight comes from personal experience as a door-to-door salesman.

This scenario makes most sense with application to voluntarily committed patients who are able to refuse treatment. A patient understands that he can refuse treatment in a mental health facility, so he voluntarily enters the facility.[157] The "confidence bolstering" theory makes less sense with regard to involuntarily committed patients because the fact that the patient had to be forced into the facility suggests a lack of confidence, or perceived uselessness of in-patient treatment.[158]

So, right to refuse laws may deter violent crimes to the extent that right to refuse laws may encourage voluntary commitment and by extension, treatment of mental illness. Unfortunately, they may also have perverse effects. Recall that one of the most significant benefits of mental health medication is a restored ability to properly reason.[159] So what could have been happening prior to the ability to refuse medication was an individual voluntarily commits herself to a facility, begins medication, increases her ability to reason but dislikes the side effects of medication. She would refuse the medication if possible, but the increased ability to reason keeps her in the facility. Now with the possibility to refuse treatment, the scenario could occur where the patient voluntarily commits herself, receives medication, has a greater ability to reason but dislikes the side-effects, has a difficult time estimating the severity of illness prior to medication, which frequently happens among the mentally ill,[160] and refuses treatment. Once treatment is refused, the patient reverts to same level of reasoning that inspired her to enter the hospital but now with updated information about the facility. After having experienced the treatment options available, she updates her beliefs about treatment options/efficacy and believes either she is "better" or that treatment is not appropriate for her, or that the only treatment available in the facility is through medication, which she would refuse if offered. Any combination of these beliefs would lead to her voluntarily leaving the facility

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[157] *See generally* Rebecca F. Cady, *A Review of Basic Patient Rights in Psychiatric Care*, 12 JONA'S HEALTHCARE L., ETHICS, & REG. 118 (2010) (explaining that patients are advised of types of treatment due to the requirement of informed consent).

[158] Richard A. Van Dorn et al., *The Relationship Between Mandated Community Treatment and Perceived Barriers to Care in Persons with Severe Mental Illness*, 29 INT'L J. L. & PSYCHIATRY 495, 496, 503 (2006).

[159] APPELBAUM, *supra* note 1, at 115.

[160] *See* Edwards, *supra* note 5, at 15.

without treatment or medication where she stands a greater likelihood of committing violent crimes.

Only recently has a large scale, national data set been employed to try and quantify any effect right to refuse laws may have on violent crimes.[161] The statistical methods employed closely mirror previous papers discussed here and use a "difference-in-differences" statistical approach to capture any affect allowing patients to refuse laws may have on violent crime.[162] For the sake of classification, the laws are split between voluntary and involuntary commitments. In the case of voluntary commitments, any state that allows voluntarily committed patients to refuse treatment, which includes but is not limited to all states that allow involuntarily committed patients to petition for refusal of treatment, are grouped together.[163] In the case of involuntary commitment, states that allow some sort of review are grouped together.[164] The same sort of procedure that first compares the affected state itself prior to enactment of the laws and then to the states that passed no law applies here as well.[165] So in essence, two laws are being tested here. The first deals with allowing voluntarily committed patients to refuse treatment once in a mental health facility.[166] The second deals with any effect allowing involuntarily committed patients to make requests to refuse treatment, and have those treatments reviewed, may have on violent behavior.[167]

Evidence presented suggests an unclear story with regard to reviews of requests to refuse treatment. The estimated effect on homicides is negative, that is, states that allow involuntarily committed patients to submit requests for refusal of medication

[161] *See id.* at 9.
[162] *See id.* at 10.
[163] *See id.* at 10, 15.
[164] *See id.* at 14.
[165] In the paper, alternate statistical specifications include attempting to measure an effect of right to refuse laws by the body that performs the review as an attempt to see if, for instance, it matters if a mental health professional or a judicial review changes criminal behavior, but that point is ancillary to purposes of this work. Additionally, great strides were made to ensure the dataset was "balanced" in the sense that the years of data used in the analysis were based on an algorithm written to maximize the feasibility of similarity of the states used in analysis. In broad terms, this included trimming the dataset until the treated and control states most closely mirrored each other in observable characteristics. *See generally id.* at 12.
[166] *See id.* at 14.
[167] Edwards, *supra* note 5, at 14.

and put those requests through any sort of review process are associated with a small reduction in homicides,[168] but that reduction is not statistically significant which suggests that no strong inference should be made based on those results. The same is not true however for states that allow voluntarily committed patients to refuse medication.[169]

States with this type of law are associated with about a ten percent increase in the homicide rate and the effect is statistically significant.[170] In addition, the effect is insensitive to the inclusion or exclusion of other control variables and does not depend on the level of specificity of the method of review variable.[171]

V. CONCLUSION

So, do these laws constitute an actual mental health revolution, or was it merely "almost" a revolution? Regarding violent crimes, specifically homicides,[172] understanding where the

[168] *Id.* at 21 (amounting to about two percent).
[169] *Id.*
[170] *Id.* at 14.
[171] *Id.*
[172] An observation one might make is that each law discussed here seems to have a strong effect on homicides, but a weak, at best, effect on other violent crimes such as assaults. There are a couple of possible explanations for this. First, the data employed from the Uniform Crime Report has well documented flaws that include systematic underreporting. *See* Steven D. Levitt, *The Relationship Between Crime Reporting and Police: Implications for the Use of Uniform Crime Reports*, 14 J. QUANTITATIVE CRIMINOLOGY 61, 62 (1998). Underreporting seems to be an issue in less violent crimes such as assaults, and other crimes that may not necessarily include violence at all such as larceny, burglary and auto theft. In contrast, nearly every homicide is reported through the Uniform Crime Report. This is evidenced by the fact that the Uniform Crime Report Data match so closely the Centers for Disease Control's death certificate homicide data which is considered to be the most accurate given that the data is collected by reading the cause of death on each death certificate processed in the United States. For the purpose of many of the analyses discussed here, the Uniform Crime Report data is preferred, even when looking at homicide data because it exists for a much larger window of time. So, one reason that significant results are consistently found with regards to homicides and not with regards to other violent crimes may be because the data is just more precise. Another reason may have to do with the nature of mental health laws generally. Most of the laws discussed here, especially *Tarasoff* type laws and involuntary commitment laws, apply only in the extremist of life threatening situations. A duty to warn is only imposed if there threat is credible and life threatening. As an example, a threat of "I think I'm going to steal my neighbors watch and if he catches me I wouldn't be opposed to smacking him," wouldn't necessarily invoke a duty to warn. Additionally, the condition necessary to involuntarily commit an individual generally needs to be life

chips fall and the subsequent policy implications requires a broader view. While looking at each law individually is necessary and important, it is also prudent to look at these three policy changes together, as they likely influenced each other. Taking the three laws together, duty to warn laws increased homicides by about ten percent, minimum stay laws for involuntarily committed patients decreased homicides by about 0.04% and allowing voluntarily committed patients to refuse treatment increased homicides by about ten percent.[173] The net effect is a stark and real increase in the homicide rate in the United States, but what should be done next is not as simple as reversing the laws currently in place.

It bears recalling that every action, policy and law has a cost, benefit and foregone opportunity. For instance, one might look at the results of the minimum stay laws and conclude that the only course of action should be to extend minimum stay requirements to every state, and maybe even lengthen the required stay. While this *may* be correct, there are potential flaws in this line of thinking. First, from a statistical point of view, these estimated effects are most valid with regards to small changes in the variables of interest. The larger we extrapolate from the mean, the less viable the results tend to be. In addition, there are monetary and social costs associated with involuntarily committing an individual, and before we jump to drastic policy changes, we should carefully think through the actual cost of involuntary commitment as well as the social cost of detaining mentally ill patients against their will.

In addition, while the laws that dictate the care and treatment of the mentally ill are and ought to be considered of foremost importance in the discussion surrounding the mentally ill, it is far from the only discussion that can and should take place regarding mental health. One real concern in discussing the relationship between mental illness and crime is the establishment of stereotypes, biases, and general discrimination against an often-underrepresented group. The solution, however, is not to ignore the relationship,[174] but rather first attempt to

threatening in nature, either to the patient or another party. In sum, the reason we only observe effects in homicides may be a product of the standard of harm created by each law.

[173] Edwards, *supra* note 5, at 14.

[174] It would be, for the sake of analogy, asinine to avoid findings that were discovered between obesity and heart failure in an effort to protect the obese

understand it and then strive to inform the general population of the intricacies of the illness. From there, efforts can and should be made by individuals and families at the local, state and national level to cater and treat those with mental illness understanding fully the implications policies may have on violence and crime. This would replace blind fear of the mentally ill that fluctuates as high profile violence is committed[175] with informed decision and policy making that aim to protect society and treat mental illness.

from negative stereotypes. Doctors, with their patient's interest in mind, would inform their obese patients about the increased risk of heart failure. Medications, a course of action, and other lifestyle changes all may be employed to protect the patient and avoid the terribly negative outcome of heart failure. For whatever reason, in the United States, mental illness all too frequently receives diminished treatment and respect as compared to other illnesses. The solution, however, is to understand and inform about the illness, not to shy away from the messy details and complications that accompany the illness.

[175] Jonathan M. Metzl & Kenneth T. MacLeish, *Mental Illness, Mass Shootings, and the Politics of American Firearms*, 105 AM. J. PUB. HEALTH 240, 240 (2015).