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Uncharted Territory: Psychosurgery in Western Canada, 1935-1970

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Uncharted Territory: Psychosurgery in Western Canada, 1935-1970

by

Brianne M. Collins

A THESIS

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Abstract

This dissertation provides the first scholarly account of the use of psychosurgery in western Canada in the mid-20th century. In particular, the adoption, organization, and purpose of the treatment within provincial mental hospitals in British Columbia, Alberta, Saskatchewan, and Manitoba are explored. I argue that while psychosurgery's adoption in these provinces mirrored its deployment elsewhere in North America, the cumulative impact of decades of overcrowding, inadequate funding, the privations of war, and the devastation of the Great Depression only amplified psychosurgery's appeal by the early 1940s. Although it was touted as a therapeutic advancement, the treatment—along with three other somatic therapies—enabled psychiatrists in western Canada to bolster their image in the medical community by demonstrating they were capable of actively treating mental illness. From a more critical perspective, I also explore the notion that psychosurgery was employed in service of a larger social agenda ascribed to mental hospitals—namely, the systemic management, control, and correction of a segment of the population that had been deemed a burden to society.

Once the treatment was introduced, each province needed to negotiate who would perform the surgeries and how, when, and where they would take place. The expansion of psychosurgery in most of the provinces was ultimately made possible by federal mental health grants that became available in 1948. By 1954, all of the provincial mental hospitals were performing psychosurgery—either on site or in partnership with a nearby general hospital. Based on available data from each province, there were at least 1,240 operations conducted in western Canada between 1943 and 1973. Of the western provinces, however, Manitoba and British Columbia maintained the most robust psychosurgical programs.

Keywords: Psychosurgery, leucotomy, lobotomy, western Canada, British Columbia, Alberta, Saskatchewan, Manitoba

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Table of Contents

Abstract	ii
Acknowledgements	iv
Table of Contents	viii
List of Tables	x
List of Figures and Illustrations	xi
Introduction.....	1
Psychosurgery and Its Historiography	6
Psychosurgery, the History of Therapeutics, and the History of Psychiatry in Canada	10
The Current Project: Approach, Sources, and Chapter Overview	17
Chapter 1: A History of Western Canadian Mental Hospitals, 1879-1930s.....	24
Constructing Western Canada’s Mental Institutions, 1870-1923	26
Mental Institutions: World War I and the Interwar Years	31
The CNCMH and Mental Health Reform Efforts During the Interwar Years	47
Provincial Politics: The Interwar Years	51
Conclusion	65
Chapter 2: No Longer “the Cinderella of Medicine”: Psychiatric Identity and the Introduction of Somatic Therapies in the 1930s	67
“A Culture of Experimentation”: Treatment Prior to the 1930s	70
Insulin Shock Therapy	73
Metrazol Shock Therapy	80
The Second World War and the Introduction of Electroshock Therapy	84
Psychosurgery’s Arrival in Western Canada	99
Conclusion	113
Chapter 3: Arranging Psychosurgery: Surgeons, Logistics, and Operative Techniques....	115
Millie: A Case Example from the Brandon Hospital for Mental Diseases	116
The (Neuro)surgeons	121
The Logistics: Operating Rooms, Frequency and Cost, and Pre-Operative Procedures	137
Surgical Techniques and Post-Operative Procedures	153
Conclusion	169

Chapter 4: Making Productive Citizens: The Administration of Psychosurgery in Western Canada	171
Mental Hospitals, Citizenship, and Productivity	174
Admission to a Western Canadian Mental Hospital	183
Moving from an Acute Ward to a Chronic Ward	188
Selecting and Assessing Candidates for Psychosurgery	191
Rehabilitation and Post-Operative Assessment	204
Conclusion	214
Conclusion	216
Western Canada by the Mid-20 th Century	217
Moving from Institutional to Community Mental Health Care	223
The Introduction of Chlorpromazine and the Decline of the Somatic Therapies	226
Concluding Remarks and Directions for Future Research	233
References	239
Appendix A: Cabinet Ministers, Provincial Psychiatrists, and Mental Hospital Superintendents in Western Canada, 1872-1960.....	340
Appendix B: Annual Reports (1935-1950) Used to Create Figures 2.1 and 2.2	346
Appendix C: Prefrontal Bilateral Leucotomy Technique Performed by Harold S. Evans.....	347
Appendix D: Number of Psychosurgical Operations Performed in Western Canada, 1943 to 1973.....	348

List of Tables

Table 3.1: Reproduction of a list of neurosurgical operations conducted by Lorne H. McConnell at the Saskatchewan Hospital, North Battleford, January 1950 to September 1951	149
Table A.1: List of British Columbia’s provincial secretaries, ministers, and mental hospital superintendents, 1872-1960	340
Table A.2: List of Alberta’s ministers of public health, commissioners, and mental hospital superintendents, 1911-1960	342
Table A.3: List of Saskatchewan’s ministers of public health, ministers of public works, and mental hospital superintendents, 1905-1960.....	343
Table A.4: List of Manitoba’s ministers of health and public welfare, provincial psychiatrists, and mental hospital superintendents, 1891-1960.....	344
Table D.1: Breakdown by province of the number of psychosurgical operations performed in western Canada from 1943 to 1973	349

List of Figures and Illustrations

Figure 1.1: Map of Canada displaying the first and second provincial mental hospitals constructed in the western provinces	27
Figure 2.1: Line graph depicting the relative rise in patient population reported in annual reports across the western provinces, 1935-1950	87
Figure 2.2: Line graph comparing the number of patients admitted to select mental institutions in western Canada, 1935-1950.....	88
Figure 2.3: Electroshock machine from Alberta Hospital, Ponoka	97
Figure 3.1: Reproduction of a Notice of Operation form used in the 1950s at the Brandon Hospital for Mental Diseases	119
Figure 3.2: Drawing of the external coordinates marking the entry sites in the prefrontal bilateral leucotomy technique performed by Dr. Harold S. Evans	120
Figure 3.3: Neurosurgical training centres where the (neuro)surgeons who performed psychosurgery in western Canada received their training	126
Figure 3.4: Photograph of Dr. Lorne H. McConnell standing beside a local surgeon (Dr. Joseph Cooper) on the steps of the Saskatoon City Hospital in 1944	132
Figure 3.5: Aerial view of the Brandon Hospital for Mental Diseases.....	139
Figure 3.6: Photograph of the front of the Heritage (Main) Building at the Provincial Mental Hospital, Ponoka	141
Figure 3.7: Drawing of the external coordinates for the prefrontal leucotomy technique created by Dr. Frank Turnbull	161
Figure 3.8: Photograph of a lobotomy operation underway in the operating theatre at the Saskatchewan Hospital, North Battleford.....	162
Figure 3.9: Photograph showing the external coordinates for the incisions that will be made for a lobotomy operation at the Saskatchewan Hospital, North Battleford.....	162
Figure 3.10: Photograph from a lobotomy operation at the Saskatchewan Hospital, North Battleford	162

Figure 3.11: Photograph of transorbital lobotomy instruments used at the Provincial Mental Hospital, Ponoka167

Figure 4.1: Reproduction of a consent form used at the Brandon Hospital for Mental Diseases in the late 1940s202

Figure 4.2: Reproduction of a ‘Leucotomy Report Summary’ form used in 1951 and 1952.....209

Figure 4.3: Reproduction of a ‘Henderson-Schultz Modification of the Garner Behaviour Chart’ from 1955210

Introduction

At the age of 23, a young, “feble-minded” woman from a wealthy, political American family underwent a prefrontal lobotomy in the early 1940s. As a political liability, the patriarch of the family brought his daughter—without knowledge or consent from her mother—to the foremost lobotomy expert in the country, Walter Freeman. The procedure, however, only served to worsen her condition leading her to spend the rest of her life institutionalized and away from public attention (Clifford Larson, 2015; Koehler-Pentacoff, 2015; O’Brien, 2004). In 1960, at the age of 12, a troublesome American boy, whose stepmother was displeased with his behaviour, was submitted to a transorbital lobotomy at the hands of Walter Freeman in order to calm his impulsivity and curb his misconduct (Dully & Fleming, 2007). Both of these individuals—Rosemary Kennedy and Howard Dully, respectively—underwent dramatic, controversial, and irreversible psychosurgical operations to address psychiatric illness between the 1930s and 1960s.

Courtesy of the decades old call to construct historical accounts from below, as well as ongoing political pressure exerted by anti-psychiatric proponents and the psychiatric survivors’ movement (e.g., Porter, 1985; Reaume, 1994), the stories of individuals like Kennedy and Dully are in no danger of being forgotten. Rather, the popularization of these accounts have led many to believe that their experiences were largely representative of patients who underwent this form of treatment. Yet, the interest in these cases is surprising given that they were both relatively atypical candidates for operation, having been non-institutionalized minors with diagnoses not characteristically selected for this form of treatment. Still, the position these accounts occupy in historical and popular discourse can be explained, at least in part, by the fact that they were both American citizens treated by the infamous American neurologist and neuropathologist, Walter

Freeman. Of course, Kennedy's position within a politically ambitious family also helps account for the attention allotted to her experiences in recent decades. In Dully's case, his own pursuit to locate his medical records led him to co-author a book about his life before and after surgery. Aside from his connection with Walter Freeman, his book also garnered attention as a rare and lucid first-person account that highlighted the questionable circumstances that led to his surgery, not to mention the publication of a shocking photograph taken mid-way through his operation (Dully & Fleming, 2007).

While the stories of Kennedy and Dully certainly deserve our attention and careful reflection, their continued invocation underscores the enduring preoccupation with the American story of psychosurgery. As Collins and Stam (2014) have shown, psychosurgery was a global practice and the experiences of Kennedy and Dully—like the American histories of the treatment that have long dominated the literature—are simply not adequate to capture its scope on a national or international scale. There are many countries where research has only begun, yet where psychosurgery was in vogue for several decades. Canada is one such country and the following three examples from Canadian publications highlight both the problem posed by an Americanized history of psychosurgery and the necessity of research in order to move beyond it.

First, in the third Canadian edition of the textbook, *Essentials of Abnormal Psychology in a Changing World*, the authors briefly described the operation performed on Rosemary Kennedy alongside a singular reference to Canada wherein the authors claimed that 10,000 surgeries were conducted in this country by the 1960s (Nevid, Greene, Johnson, Taylor, & Macnab, 2015, p. 70). Interestingly, however, the source cited by the authors (i.e., Simmons, 1987) only provided

an outdated estimate for the number of surgeries conducted in the province of Ontario.¹ In fact, there is no credible estimate available for the number of surgeries conducted in Canada.

Second, Erika Dyck and Alex Deighton (2017) from the University of Saskatchewan recently published a monograph examining the history of one of the province's mental hospitals. Therein, the use of lobotomies at Weyburn Mental Hospital was only given brief attention after being situated within an American narrative that predictably invoked Walter Freeman and drew upon American histories of psychosurgery (e.g., Braslow, 1997; Pressman, 1998).² The authors conceded, however, that "The number of lobotomies performed throughout North America is difficult to pinpoint" (Dyck & Deighton, 2017, p. 132), after which they pointed to Braslow's (1997) estimate of 20,000 surgeries conducted in the US. Their coverage of psychosurgery concluded without mentioning any information about the treatment's use in Canada or the limited research that does exist in a few provinces. They also did not provide any estimate for the number of surgeries conducted at Weyburn, or in the province more broadly.

Finally, the most recent example can be found in the May 2018 issue of the *Canadian Medical Association Journal* where Andrea Tone and Mary Koziol (2018) published a short piece calling into question psychiatry's enduring interest in women by drawing upon several historical examples—primarily psychosurgery and tranquilizers. While the authors' efforts to problematize psychosurgery's use on women deserves careful consideration, it is how they

¹ While Simmons (1987, 1990) estimated that 1,000 surgeries were conducted in Ontario, Collins (2012) revised this number to assert that no less than 1,438 surgeries were conducted in the province with the actual number likely exceeding 2,000. Nevertheless, it is important to clarify that Simmons (1987, 1990) did not provide any estimate for surgeries in Canada more broadly.

² Interestingly, Dyck and Deighton (2017) specifically mention Freeman's transorbital technique. However, as I will show in Chapter 3, there is no evidence to suggest that transorbital lobotomies were ever used in Saskatchewan.

accomplish this task that is of interest here. Even though both authors herald from a Canadian university and are publishing in a Canadian journal, they made their case by focusing almost exclusively on Walter Freeman—the same physician who treated both Kennedy and Dully—and his partner, James Watts. As was the case in Nevid et al.’s (2015) textbook and, for the most part, in Dyck and Deighton’s (2017) monograph, there was little mention of the Canadian experience with the treatment; instead, yet another incorrect numerical estimate was provided. Specifically, Tone and Koziol (2018) stated that “an estimated 50,000 patients in the United States *and* Canada had been lobotomized” (p. E624, italics added). This estimate, traditionally associated with the highly critical American psychiatrist, Peter Breggin (1982), only referred to US operations and has been critiqued as inflated by several scholars (e.g., Valenstein, 1986).

The invocation of Rosemary Kennedy’s story, the presence of inaccurate surgical estimates, and the predictable reliance on American accounts are a stark reminder of the lack of histories available on psychosurgery in this country and internationally. Moreover, these publications—the first which is used in university classrooms, the second of interest to academics and the public, and the third subscribed to by medical professionals—also raise important questions about the ways in which misinformation can so easily evade peer review and, ultimately, misshape public and professional discourse on a topic.

The aim of my dissertation is to address some of these misconceptions by exploring the history of psychosurgery in four Canadian provinces. Doing so offers medical historians research on the role Canadian physicians and hospitals played in a global treatment for mental illness. The urgency of this task, however, is all the more important with the growing number of procedures

in use today that necessitate direct intervention upon the brain.³ According to Neumaier et al. (2016), there was a steady increase between 2000 and 2015 in the number of publications pertaining to modified stereotactic procedures and deep brain stimulation suggesting that surgical intervention in cases of psychiatric illness is not a thing of the past. In light of medical procedures that continue to evoke memories of what many deem to be a darker time in the history of medicine, the value of history to the medical field cannot be overstated. Jones, Greene, Duffin, and Warner (2015) summarized this well:

History offers perspective on medical knowledge and practice, suggesting humility where overconfidence too often exists. It re-humanizes medicine in the face of scientific reductionism and demonstrates that medicine is fundamentally social, an encounter between (at least) two humans, each embedded in social, economic, and political contexts. (p. 633)

What follows is an introduction to the present project beginning with a survey of the research available on psychosurgery before situating it within the literature on the history of therapeutics and psychiatry in Canada. Then, I introduce the scope of the present project by articulating both my approach and argument before discussing the sources relied upon and the challenges faced in gaining access to many of them. Finally, I conclude with an overview of the chapters that follow.

³ While some in the medical community continue to use the term psychosurgery when referring to current neurosurgical operations (e.g., Juckel, Uhl, Padberg, Brüne, & Winter, 2009), others have suggested that the term be replaced in order to prevent unnecessary legislative challenges as a result of lingering stigma (e.g., Sachdev, 2007). There are also newer interventions—whether temporary or permanent—that continue to be explored for therapeutic purposes such as repeated transcranial magnetic stimulation (rTMS) in the treatment of depressive disorders (Fitzgerald & Daskalakis, 2013) and magnetic seizure therapy for treatment-resistant depression (Kayser et al., 2015).

Psychosurgery and Its Historiography

What is known about the history of psychosurgery is largely informed by the American experience, hence these accounts are the most logical starting point for a review of the historiography. The earliest monographs on psychosurgery in America—written by David Shutts (1982) and Elliot Valenstein (1986)—were not only written within the same decade, they also approached the topic in similar ways. While both accounts were meticulously researched, they shared a common disdain for Walter Freeman and his propagation of a “mutilating” treatment in the mid-20th century (Shutts, 1982, p. xi; Valenstein, 1986, p. 3). Both are exemplars of cautionary tales that have capitalized on the collective fear of mental hospitals and physical treatments by sensationalizing psychosurgery and vilifying its greatest proponent.

Although these works provided a foundation for subsequent research, their contributions have largely been superseded by the work of several historians of medicine whose accounts have taken the psychosurgical project more seriously by situating it more carefully within American medicine at the time. Characterized as a “seminal” text (Raz, 2013, p. 2) and “the most exhaustive history on lobotomy” (Braslow, 1997, p. 7), Jack Pressman’s (1998) monograph remains the most definitive work on American psychosurgery. In contrast to the earlier more moralistic accounts, Pressman convincingly demonstrated that psychosurgery’s eventual acceptance within mainstream psychiatry was a product of professional and institutional realities. Despite Pressman’s many accolades, however, Joel Braslow (1997) observed how Pressman’s diligence in providing a nuanced account led him to overlook more critical interpretations. In his detailed examination of case files from several California state mental hospitals, Braslow (1997) responded by demonstrating how psychiatrists constructed problematic behaviour exhibited by patients as symptoms of bodily illness. By locating disease within the body, psychiatrists were

empowered by a biological approach that aligned their specialty with other medical fields while simultaneously arming them with therapeutic rationale for applying a host of somatic treatments that emerged in the first half of the 20th century. Considered by Braslow as “the most biological of remedies” (p. 143), psychosurgery was unique among other somatic treatments because disease was located within the brain specifically, which enabled precise surgical intervention versus treatments like hydrotherapy or insulin shock therapy that were applied generally to the whole body.

Although Braslow’s (1997) monograph was an American—specifically Californian—account, Walter Freeman was not given the same attention allotted to him in earlier works. In 2005, however, journalist and popular writer, Jack El-Hai (2005), published a fresh and more generous biography of Walter Freeman without negating the harm that befell many patients subjected to lobotomies. Although El-Hai initially anticipated he would “condemn Freeman as cruel, devious, and unprincipled,” he was faced with “persuasive evidence that at times [Freeman] acted in the best interests of his lobotomy patients, given the limitations of the medical environment in which he worked and the perilous nature of scientific innovation” (p. 4). Similarly interested in Freeman and his role in American psychosurgery, historian Mical Raz (2013) examined Freeman’s professional formation and the role of allied fields (e.g., neurology, neurosurgery) in psychosurgery’s emergence and mainstream acceptance. She also explored how surgical outcomes were interpreted by Freeman, his patients, and their families.

Interest in American psychosurgery eventually expanded to include: examinations of the intersections between lobotomies and evolving public discourse (e.g., Diefenbach, Diefenbach, Baumeister, & West, 1999; J. Johnson, 2014; Caruso & Sheehan, 2017); new research into the contributions of other key players during the psychosurgery era such as neurosurgeon, J.

Lawrence Pool (Holland, Kopel, Carmel, & Prestigiacomo, 2017); and an analysis of Freeman and his transorbital lobotomy from a material culture perspective (Collins & Stam, 2015). With the rise and expansion of contemporary neurosurgical procedures used to treat psychiatric disease, practitioners have also been forced to engage with the history of psychosurgery and its lingering stigma (e.g., Sachdev, 2007; Lozano, 2010).

Although the above coverage of the American historiography is not exhaustive, the number of sources—and recurring interest in the same geographical location and key figure—over nearly four decades demonstrates the privileged position allotted to this body of work. This trend has been identified by scholars in the field who have sought to move beyond the borders of the United States (e.g., Zalashik & Davidovitch, 2006; Collins & Stam, 2014). Yet, there has always been some interest in the use of psychosurgery in other countries. Simmons (1987), for instance, provided the first account of psychosurgery in the Canadian province of Ontario while Crossley (1993) examined the arrival of the leucotomy to the North Wales Hospital in the United Kingdom. The same year, Lichterman (1993) provided a brief account of Russia’s Ludvig Puusepp whose work in the early 1900s allegedly predated psychosurgery’s introduction in the mid-1930s, though it went unpublished. Scandinavian interest in psychosurgery began soon after with an article wherein Tranøy (1996) claimed that “Scandinavian hospitals lobotomized 2.5 times as many people per capita as hospitals in the United States from 1941 to 1960” (p. 1).

In the first decade of the new millennium, there was a marked increase in research on psychosurgery in a variety of national contexts. Masiero (2003) recounted Brazil’s experiences, and interest in Scandinavia persisted with an analysis of psychosurgery in Norway (Tranøy & Blomberg, 2005) and Sweden (Ögren & Sandlund, 2007). While Zalashik and Davidovitch (2006) explored Israel’s use of lobotomies between 1946 and 1960, Kotowicz (2008) examined

Italy's experiences between 1936 and 1939. Toward the end of the decade, Goldney and Adams (2009) briefly documented the arrival of both electroconvulsive shock therapy and psychosurgery at one particular South Australian hospital, while Zahmacioglu, Dinc, and Naderi (2009) provided an account of the treatment's history in Turkey.

Since 2011, interest in international psychosurgery has risen fairly dramatically, particularly in contrast to previous decades. For instance, Perreault (2012) examined the use of psychosurgery on 250 patients between 1949 and 1956 at Montreal's Saint-Jean-de-Dieu Psychiatric Hospital in the Canadian province of Quebec. Some of these cases included a series of male patients operated on in an attempt to treat masturbation and homosexuality from 1949 to 1951 (Perreault, 2011). The following year, Collins (2012) expanded upon existing research exploring psychosurgery in Ontario, Canada. Accounts of leucotomies in Greece (Ploumpidis, Tsiamis, & Poulakou-Rebelakou, 2015) and their arrival in the mid-1940s in Sydney, Australia (White & McGee-Collett, 2016), have also been published. In 2017 alone, new contributions emerged examining psychosurgery in France (Zanello et al., 2017), the USSR (Zajicek, 2017), Poland (Jęczmińska, 2018), Japan (Nudeshima & Taira, 2017), and new research from the UK pertaining to the contributions of British neurosurgeon, Geoffrey Knight (Marchi, Vergani, Chiavacci, Gullan, & Ashkan, 2017). Then, a few years ago, Martyr and Janca (2018) expanded upon existing research in Australia by describing the emergence of leucotomy in Western Australia. Most recently, Rzesnitzek (2019) examined the treatment's introduction in Germany and Terrier, Lévêque, and Amelot (2019) conducted "a francophone review of the reported data from 1935 to 1985" that examined publications "in the French, Belgium, and Swiss reported data" (p. 211).

Despite the fairly comprehensive body of international literature on psychosurgery that has emerged in recent decades, American narratives and sources continue to occupy an inordinate amount of space in many of these works. Although the importance of the American history of psychosurgery and Walter Freeman's crucial role within this story is undeniable, research beyond the US must forge ahead in order to encourage a global understanding of psychosurgery's history.

Psychosurgery, the History of Therapeutics, and the History of Psychiatry in Canada

The need for additional research is readily apparent when looking specifically at Canadian historiography on the topic. Most of what is known about psychosurgery in Canada comes from research on its use in the province of Ontario. Harvey Simmons (1987; 1990) and Geoffrey Reaume (2008) offered similar critical, moralistic, and occasionally anachronistic, accounts that questioned the ethics and motivations of Ontario physicians. In a biography of the Toronto Psychiatric Hospital, Roger Baskett (1996) also contributed a book chapter that briefly detailed the use and administration of psychosurgery at the hospital. While these publications raised a number of concerns about psychosurgery's application in Ontario, they failed to provide a comprehensive account. To address this, I completed a master's thesis in 2012 on the arrival, expansion, and decline of the leucotomy program in Ontario. As a counterbalance to many of the criticisms raised by Simmons (1987; 1990) and Reaume (2008), I argued that the leucotomy program in Ontario was well-organized, efficient, and thoughtfully orchestrated. I did so by examining the bureaucratic and administrative processes, clinical procedures, and patient compliment (Collins, 2012). Although my thesis was the first comprehensive study of psychosurgery in Canada, only Ontario was explored.

Scholarly research on the use of psychosurgery throughout the rest of the country is comparatively limited. In Quebec, only two hospitals in Montreal have received attention from historians. Specifically, as mentioned above, Isabelle Perreault (2011; 2012) has critically examined the use of psychosurgery at Montreal's Saint-Jean-de-Dieu hospital, while Yvan Prkachin (2018), in his recent dissertation about the Montreal Neurological Institute, dedicated a chapter to recounting Wilder Penfield and Ewan Cameron's brief collaboration on a series of modified psychosurgical operations in 1944. Otherwise, aside from two pages on psychosurgery in a book written by Rankin Hay (2003), a Manitoba neurosurgeon, there have been no scholarly accounts of psychosurgery in the Maritimes, prairie provinces or British Columbia.⁴

While it is clear that psychosurgery has received minimal attention in Canada, it has been mentioned in passing by some scholars who have examined other aspects of Canada's psychiatric past. For instance, in their analysis of the first 38 women deemed criminally insane and treated in a mental hospital in British Columbia, Chunn and Menzies (1998) explained that brain surgery was among a number of somatic treatments that 29 of the women were subjected to as part of efforts to correct deviant behaviour. In her history of the Waterford Hospital in Newfoundland, medical historian, Patricia O'Brien (1989), provided the only mention of the treatment's use in the Maritimes when she noted that approximately 49 surgeries were conducted in the late 1940s. Historian Ian Dowbiggin (2011) also gave brief attention to lobotomies as one

⁴ Psychosurgery has been given brief attention in many of the hospital histories that have been published by lay historians or historical committees from local mental hospitals (e.g., Refvik, 1991; Shury et al., 2013; Speirs, 2010). These types of accounts are not typically peer reviewed or written by scholars; rather, they are intended to preserve the memories of past patients, attendants, nurses, physicians, and communities. Even though these sources were used only in the absence of archival evidence or scholarly accounts, hospital histories remain important cultural products representing how a hospital's history is preserved and recollected in retrospect.

of several avenues explored by the medical community and mental health practitioners who sought to maintain and restore mental health in both the United States and Canada.⁵ And, as mentioned previously, Dyck and Deighton's (2017) recent monograph examined the history of Saskatchewan's Weyburn Mental Hospital, where it was noted that psychosurgery was conducted in the province. Best known for her work on LSD in Saskatchewan, Dyck (2012) also briefly mentioned lobotomies in her book, *Psychedelic Psychiatry: LSD on the Canadian Prairies*, as one of several somatic treatments that Humphry Osmond—one of the major proponents of LSD in Saskatchewan—felt focused too readily on the physiological while overlooking the psychological.

Although psychosurgery remains considerably uncharted in this country, it is not the only therapeutic modality introduced in Canada in the 20th century that has received scant academic attention. More broadly, the history of therapeutics in Canada remains an area ripe for exploration. A similar situation in the American medical historiography was noted in the mid-1990s by Andrew Scull (1994) despite the fact that “Therapeutics, the translation of abstract knowledge into socially acceptable recipes for intervention and practical action, necessarily remains close to the heart of the medical enterprise” (p. 2). In the Canadian literature, treatments in vogue in 19th century asylums have been given due consideration. Historian James E. Moran (2000), for instance, published a social history of asylums in Quebec and Ontario where his third chapter addressed the intersections between moral treatment, pre-existing perceptions and modes of managing insanity in Canadian society, and the rise of asylums. Examining the design of these

⁵ It is worth noting that Dowbiggin is from the University of Prince Edward Island in Canada, but his monograph is yet another example of where limited information available in this country impeded his ability to provide estimates of the extent of psychosurgery in Canada, despite his reference to some of the more international historiography on psychosurgery (Dowbiggin, 2011).

institutions rather than their social history, Edginton (1988) explored how “the development of the institutional treatment of the insane in Manitoba from moral to custodial treatment, or from personal contact to structural organization...affected physician and patient alike” (p. 171).

Looking more closely at one facet of moral treatment, Reaume (2006b) studied the history of patient labour—or “work therapy”— in Ontario’s asylums (p. 69). Turning to the biological, Wendy Mitchinson (1982) articulated how perceptions of women and mental illness informed the application and subsequent evaluation of gynecological surgeries at the asylum in London, Ontario.

Historical works examining the treatments that were used in Canada in the 20th century are also limited. Just as psychosurgery in this country has received exceptionally sparse attention, so too have the various shock treatments that also emerged in the 1930s. At most, treatments like insulin coma therapy and electroshock therapy tend to be mentioned in passing in histories that have not focused on therapeutics specifically (e.g., Baskett, 1996; Dooley, 2004; Fingard & Rutherford, 2006; O’Brien, 1989; Simmons, 1990). Consequently, remarkably little is known about the use of somatic therapies in Canada. Turning to another physical therapy in use prior to the 1930s, hydrotherapy has been mentioned by some scholars within their larger works (e.g., Baskett, 1996; Dooley, 2004; Kelm, 1994a). Dickinson (1989), however, did dedicate some space in his book to the role of hydrotherapy and work therapy in Saskatchewan’s mental hospitals in the early 20th century. More recently, Collins (2014) presented a conference paper at the yearly meeting of the Canadian Society for the History of Medicine (CSHM) held at Brock University entitled “Showers and Shocks: The Role of Hydrotherapy in Canada During the Era of The Somatic Treatments.”

There are, however, select treatments that were employed in Canada that have received more direct scholarly consideration. For instance, Foth, McWatters, Lange, and Connell (2017) recently published a book chapter that addressed the delivery of fever therapy by nurses at the Ontario Hospital, Toronto in the 1940s. A few years prior, Collins (2015) presented a paper at the American Psychological Association concerning the use of malarial therapy at the Provincial Mental Hospital in Ponoka, Alberta. Ewan Cameron's psychiatric treatments at the Allan Memorial Hospital in Montreal have also captured the interest of some, presumably on account of the controversial nature of his work (e.g., Cleghorn, 1990; Lemov, 2011; Shorter, 1997). Indeed, historian of medicine, Andrea Tone, is currently working on a monograph that will reportedly address Cameron's work, its connections with the CIA, and psychiatry during the Cold War era ("Andrea Tone," n.d.; M. Moran, 2011). Interestingly, little work has been published on the emergence of tranquilizers in Canada in the 1950s. Still, historians such as Shorter (1997), Pieters and Snelders (2007), and Dooley (2012) have all dedicated some space within their larger works to discussing the topic. In contrast to the research on psychopharmaceuticals, the use of LSD in Saskatchewan both as a treatment and as a substance used by those tasked with shaping therapeutic programs has been thoroughly examined for more than a decade courtesy of Erika Dyck (2006, 2007, 2008, 2012). Building on Dyck's work, Bazar and Collins (2015) presented a paper at the CSHM examining the use of LSD at a clinic in Calgary, Alberta and as part of the forensic inpatient program in Penetanguishene, Ontario. Currently, Dyck is working on a project exploring the use of LSD at Hollywood Hospital in British Columbia ("Current research projects," n.d.).

A possible exception to the dearth of literature concerning the history of therapeutics in 20th century Canada is eugenics—specifically, sexual sterilization. At least, this is the case if one

considers sterilization to be inherently similar to the treatments discussed above. Indeed, Scull (1999) mentioned eugenics and sterilization as among those things that “psychiatrists have done to and for their patients” (p. 241). Braslow (1997), in his monograph examining a number of treatments used in California State Hospitals, dedicated a chapter to sexual sterilization where he argued that physicians at Stockton State Hospital “saw sterilization not as an instrument of the state to prevent the procreation of the insane but as a therapeutic intervention to alleviate suffering” (p. 55).

In contrast, many scholars who have written about eugenics in Canada have positioned sterilization as a preventative, public health measure. For instance, in Angus McLaren’s (1990) foundational social history of eugenics in Canada, he stated that “The main support of eugenics, in Canada as elsewhere, came from those who believed that an understanding of heredity could improve *public* health” (p. 28). Less than a decade later, Dowbiggin (1997) explained that concerns about arriving immigrants and “The fear that the feebleminded were not only uncommonly promiscuous but also dangerous because of their hereditary traits prompted psychiatrists to campaign for tighter controls over their reproduction” (p. 133). More recently, Dyck (2013) echoed a similar perspective in the introduction to her recent book on eugenics in Canada:

...the new science of heredity...attracted attention from a wide array of scientists, policy makers, philosophers, and social reformers across the political spectrum, many of whom had a long-standing interest in population control. The possibilities captivated reform-minded enthusiasts who sought scientific solutions to a range of problems associated with urbanization, disease, poverty, moral degeneration, immigration, and race suicide. (p. 4)

While both sterilization and treatments like psychosurgery were of interest to biologically-oriented psychiatrists, their application seems to have served different agendas. This is supported by the relative absence of psychosurgery (and similar institutional treatments) in histories examining eugenics in Canada (e.g., Dowbiggin, 1997; Dyck, 2013; Gibbons, 2014; Grekul, Krahn, & Odynak, 2004; Kurbegovic, 2019; Malacrida, 2015; McLaren, 1990; Moss, Stam, & Kattevilder, 2013; Samson, 2014; Springer, 2012).⁶ However, Dyck (2013) did briefly reference the use of electroshock therapy and psychopharmaceuticals in Alberta whereby one psychiatrist working at the Provincial Training School in Red Deer attempted to link schizophrenia with mental deficiency. Doing so provided justification for the eventual use of tranquillizers on children at the facility. Thus, despite differences between institutional treatments and sterilization noted by a number of scholars, and the considerable lack of literature connecting the two, Dyck's (2013) work suggests that future research may yield interesting connections that have thus far been overlooked.

Nevertheless, understanding how eugenics practices were deployed and supported in Canada provides valuable contextual insights into the use of psychosurgery. For instance, support for eugenics—from surgical sterilization to mental hygiene initiatives—within the Canadian psychiatric community was partly a consequence of their reliance on government funding and support in matters of mental health care (Dowbiggin, 1997). Understanding this relationship helps explain why psychosurgery programs in many provinces became normative following the introduction of federal mental health grants in 1948 (e.g., Collins, 2012).

⁶ Research conducted for this project also generated no evidence that psychiatrists in the provinces linked their work on psychosurgery or the other somatic therapies with eugenics practices or ideology.

Finally, even when psychosurgery and other treatments of the same era have not been adequately addressed in the Canadian literature, their introduction during and following the Great Depression and their rise in popularity during the post-war era benefits from contextualization found in the scholarship on the history of psychiatry in Canada more broadly. This continuously growing field has yielded research on a plethora of topics including the rise of asylums and life within their walls (e.g., Bazar, 2013; Miron, 2006; Reaume, 2006a; J. Moran, 2000), the emergence of forensic psychiatry (e.g., Kirk-Montgomery, 2006), deinstitutionalization (e.g., Boschma, 2011; Dyck, 2010; Thifault & Dorvil, 2014), aboriginal patients (e.g., Menzies & Palys, 2006), and the history of psychiatric nursing (e.g., Boschma, Yonge, & Mychajlunow, 2005). While not all of these topics are immediately relevant to this history of psychosurgery, they contribute to an overall understanding of 19th and 20th century psychiatry, of which psychosurgery was also a part. Accordingly, many of these works—and many others dealing both with Canadian and international psychiatric history—are referenced throughout this dissertation.

The Current Project: Approach, Sources, and Chapter Overview

Although psychosurgery has been a topic of investigation for decades with ample attention having been given to the American narrative and key figures (e.g., Walter Freeman, Rosemary Kennedy, Howard Dully), historical research in other national contexts has also been gradually increasing since the early 2000s. As has been shown, scholars in Canada have often been limited in their ability to draw on Canadian research and forced to default to American scholarship. With the few publications that do exist on the topic, focus has been on Ontario and, to a lesser extent, on Quebec. In response, what follows is the first historical account of

psychosurgery across western Canada—specifically, British Columbia, Alberta, Saskatchewan, and Manitoba.

Depending on one’s geographical location within Canada, what is considered “western” may be up for debate. However, Canadian historians have frequently included all four provinces in works examining the region’s political, economic, social, intellectual, and cultural history (e.g., Carter, 1999, 2008; Cavanaugh & Mouat, 1996; Dyck & Bradford, 2012; Janigan, 2013; Kelm, 2011; Macleod, 1993). Yet, research that has focused more narrowly on the prairie provinces also emerged based on shared interests and challenges (e.g., Carter, 1990, 1997; Francis, 1989a; Francis & Kitzen, 2007b; Friesen, 1984; Korinek, 2018; Loewen & Friesen, 2009; Marchildon, 2009, 2018; Waiser, 2005; Wardhaugh, 2001). At the beginning of Gerald Friesen’s (1984) foundational work examining the history of the prairie provinces, he explained that Alberta, Saskatchewan, and Manitoba “have been bound by economy and history into a single region for most of the past three centuries” (p. 3). Moreover, in Mary Janigan’s (2013) recent history examining the fraught relationship between western Canada and the rest of the country, she recounted how in the early 20th century, even British Columbia wrangled with the prairie provinces for federal resources and funds. And, of course, there have also been provincial histories published on each of the four western provinces (e.g., Davies & Keshen, 2016b; Dobie, 1980; Kuffert, 1999/2000; McManus, 2011; Price, 2000; Prince, 1996; Spencer, 2007; Waiser, 2005).⁷ While there is precedent for the study of a single province, the three prairie provinces,

⁷ A number of Canadian historians have offered historiographical reviews and reflections concerning the state of the scholarly literature that has been published on western Canada. For those interested, these works succinctly address historical trends and transitions and, in several cases, call for new areas to be explored. For instance, in calling for more research in the area of intellectual and cultural history, R. Douglas Francis (1989b) described how histories of this kind in the prairie provinces have primarily

and western Canada more broadly, the work that follows explores the history of psychosurgery across all of the four of the western provinces.

Falling within the history of therapeutics, akin to previous works by Braslow (1997) and Raz (2013), I argue that psychosurgery in the western provinces was one of four somatic treatments that not only served to demonstrate psychiatry's treatment prowess to the larger medical community, but also contributed to the systemic management, control, and correction of a segment of the population that had been deemed a burden to society. Although the adoption, development, and utility of psychosurgery in western Canada mirrored its deployment elsewhere in North America, the cumulative impact of overcrowding, inadequate funding, the privations of war, and the devastation of the Great Depression only amplified psychosurgery's appeal.

Before proceeding, a note about the sources used may be helpful given that the availability of sources differed across the provinces and, consequently, impacted the historical accounts that emerged. This project draws primarily upon institutional discourse found in journal articles, annual reports, newspaper and magazine articles, government and professional correspondence and documentation, and, to a minimal extent, patient files. Availability and access to these sources, however, varied substantially depending on the province. Each of the provinces have their own privacy and freedom of information legislation that required careful

addressed four areas: "regional identity, protest, social reform, and imagery" (p. 44). In the same year that Alberta and Saskatchewan were commemorating their centennial anniversaries, Sarah Carter (2005) explained that she had found "that the academic historians of Western Canada have tended to be cautious, low-key, and tentative, [despite]...important periods and locales of ferment and activity" (p. 14). She persuasively urged "historians of Western Canada...[to do] more to present alternative views, to revitalize and expand the field, to provide critiques and reassessments, and to engage in international debates" (p. 14). Perhaps hearing that call, Gerald Friesen (2010) wrote an account of the ways in which critical histories of western Canada have changed throughout the 20th century.

navigation throughout the course of the project after ethics approval was initially obtained from the University of Calgary. In most provinces, access to material was evaluated and managed by the respective provincial archives. In British Columbia, for example, a formal research agreement was made with the BC Archives. In Manitoba, however, approval was required from the Department of Health, Seniors, and Active Living via the Health Information Privacy Committee (HIPC), as well as from the Selkirk Mental Health Centre (SMHC) research committee, before a formal research agreement could be negotiated between the Provincial Archives and the University of Calgary. There were also some files that were not housed at the Provincial Archives and required visits directly to the SMHC's Health Information Services. In Saskatchewan, I opted to see redacted documents made possible through working directly with one of the archivists, rather than attempting to obtain additional ethics approval since ethics clearance from the University of Calgary was not sufficient to meet the requirements of that province's particular legislation. Finally, Alberta was one of the most challenging provinces in which to conduct this type of research. Not only was the process to obtain access cumbersome and unclear, locating potential files of interest proved challenging. Many of the records from Alberta Hospital, Ponoka (and possibly Alberta Hospital, Edmonton) from the era under study here may have been lost or destroyed in the 1980s. Fortunately, the Fort Ostell Museum in Ponoka has much of what remains from the Alberta Hospital, Ponoka collection in their holdings (S. Allsopp, personal correspondence, July 6, 2018). These challenges necessitated forging ahead with less information from Alberta as a result of practical and logistical constraints.

Chapter Overview

Given that this project is an ambitious attempt to examine the history of psychosurgery across the four western provinces, Chapter 1 provides a necessary historical account of

institutional mental health care from each province's entrance into Confederation to the Great Depression. Specifically, after detailing the construction of the first two provincial mental hospitals in each province, I describe how these institutions were adversely impacted by steadily rising patient populations, the First World War, and its aftermath. During the interwar years, mental hospitals, like the rest of Canadian society, were grappling with the containment and treatment of infectious diseases and the return of wounded soldiers. After addressing efforts at reform by the Canadian National Committee on Mental Hygiene during the 1920s, I examine the political context within each province with particular attention given to social welfare spending during the interwar years and the substantial impact of the Great Depression. As a whole, this chapter lays out the socio-political, economic, and institutional landscape in western Canada by the late 1930s. Without this chapter, psychosurgery's adoption in the western provinces cannot be fully appreciated.

Commencing where the first chapter leaves off, Chapter 2 charts the introduction of the four somatic therapies—of which psychosurgery was one—in the latter half of the 1930s and first half of the 1940s. I describe how the precarious conditions already facing hospital administrators by this time were further aggravated by the Second World War, the continued scarcity of government support, ever increasing overcrowding, and ongoing staff shortages. Not only were hospital administrators especially receptive to the new somatic treatments in light of these troubling conditions, I argue that the new treatments also provided an avenue for psychiatrists to bolster their professional reputation in the medical community. The somatic therapies enabled psychiatrists to demonstrate their treatment prowess to those who maintained that they were merely custodians of the institutionalized mentally ill.

While the first two chapters emphasize the similarities between the western provinces and other jurisdictions in North America, Chapter 3 explores the different ways in which psychosurgery was arranged and administered across each of the provinces. The availability and professional training of surgeons who performed these operations varied from province to province, as did the surgical techniques they employed despite common operating room practices. Moreover, the location where the procedures were performed—either on site at a provincial mental hospital or at a nearby general hospital—depended upon access to surgeons and the availability of operating rooms that were equipped to handle major surgical procedures. Courtesy of federal mental health grants available on a project-by-project basis beginning in 1948, psychosurgery programs, including the infrastructure needed to support them, expanded considerably into the early 1950s.

Chapter 4 provides a critical account of the administration of psychosurgery and its larger purpose within institutionalized mental health care. By drawing on the work of two influential social theorists, Michel Foucault and Erving Goffman, I argue that psychosurgery was performed on two different groups of patients with ultimately the same aim—namely, making productive citizens. On the one hand, the treatment was prescribed as a mechanism for returning mentally ill patients back into society in order to take up their role as full citizens—a status that had been revoked upon entry into the mental hospital. On the other hand, however, it was also used to treat those who were unlikely to be discharged on account of chronic conditions that compromised their ability to work, maintain personal habits, or behave in a normative manner. For the second group of individuals, a new kind of citizenship was constructed by psychiatrists—namely, institutional citizenship—in order to justify applying psychosurgery to forge compliant, well-adjusted patients.

Finally, in the conclusion, the movement from institutional to community care that gained momentum in western Canada during the latter half of the 1950s is briefly discussed. A short account of the introduction of chlorpromazine and the subsequent decline of the somatic treatments is also offered. Before providing concluding remarks and directions for future research, the number of psychosurgical operations known to have been conducted in the western provinces is documented for the first time.

Chapter 1

A History of Western Canadian Mental Hospitals, 1879-1930s

In a four-part exposé published in *Liberty* magazine from late January to early March of 1947, Don Le Bourdais (1947a) recounted his experiences and observations pertaining to the state of provincial mental hospitals in Canada after a recent trip: “From Halifax to Vancouver...I have just finished a trip of 8,000 miles to see how we are treating more than 50,000 fellow Canadians held behind the locked doors and barred windows of our thirty-odd provincial mental hospitals” (p. 8). The first three parts in the series, called “Canada’s Shame—Our Mental Hospitals,” covered the Maritimes (Le Bourdais, 1947a), the western provinces (Le Bourdais, 1947b), and Ontario and Quebec (Le Bourdais, 1947c).⁸ “Part Four – Thousands Could Be Cured!” detailed the hope that new treatments—including psychosurgery, electroshock therapy, and insulin shock therapy—offered hospitals (Le Bourdais, 1947d). From Le Bourdais’s (1947a) perspective, these new treatments offered hope that “the ravages of mental disease could be greatly cut,” especially given the poor state of mental hospitals by the mid-1940s (p. 9). In his review of the western provinces, Le Bourdais (1947b) provided a scathing critique that heavily criticized the governments for the situation facing provincial institutions:

Year after year, with monotonous regularity, through the depression, and with even greater insistence during the war, mental-hospital superintendents in the four western provinces—as in other provinces—warned their governments of the danger of

⁸ The title of Le Bourdais’s (e.g., 1947a) article series is likely no accident. In the United States, Albert Deutsch had published a number of scathing articles in the mid-1940s after touring American mental hospitals. He eventually published a book based on his experiences in 1948 called *The Shame of the States* (Grob, 1994).

understaffed and overcrowded hospitals.... Yet, year after year, with equally monotonous regularity, governments ignored such pleas. (p. 9)

Le Bourdais's comments speak to the historical context that led mental hospitals to be in the condition they were when he toured them in the mid-1940s. In other words, the situation facing mental hospitals was largely a result of a host of economic, social, and political developments that can be traced back to the interwar years, World War I, and even earlier.

Thus, in order to explain why psychosurgery was taken up by physicians in western Canada in the 1940s, it is crucial to first understand something about the institutional, social, and political landscape of the four western Canadian provinces by that time. This chapter is an attempt, then, to bring these circumstances and developments clearly into view before exploring the adoption of psychosurgery—and other somatic therapies—in the chapter that follows. Yet, unlike in the case of the United States (e.g., Grob, 1994; Shorter, 1997), the emergence and development of mental institutions in Canada, particularly in the western provinces during the first decades of the 20th century, remains underexplored. Nevertheless, I begin by describing the construction of the first two asylums in each of the western provinces after Confederation and the struggle to manage a steadily growing insane population. Next, I address the impact of the First World War and the ensuing challenges faced during the interwar years, particularly in terms of infectious disease, venereal disease, the introduction of malarial therapy, and the return of wounded soldiers. Then, I address the Canadian National Committee on Mental Health's efforts at mental health reform both within and outside mental institutions during the interwar years. Finally, the political context within each province is explored in terms of social welfare spending and the significant impact of the Great Depression. By examining the emergence of, and conditions found in, mental hospitals during the first half of the 20th century, this chapter

provides the necessary historical context for understanding why psychosurgery and other somatic therapies pioneered in the 1930s became so appealing to physicians in each of the western provinces.

Constructing Western Canada’s Mental Institutions, 1870-1923

When the Dominion of Canada officially came into being on July 1, 1867, by way of the British North America (BNA) Act, only Ontario, Quebec, New Brunswick and Nova Scotia were included (Tennyson, 2015). Manitoba joined Confederation in 1870 with British Columbia (BC) following a year later—the other two western provinces would join after the turn of the century (Friesen, 1984). Amidst efforts to bolster economic growth and negotiate bureaucratic structure, new provinces of the Dominion also had to contend with the growing number of patients suffering from insanity within their borders.⁹ As such, the first mental hospitals—initially called asylums—were constructed within the first two decades of each region becoming a province with a second institution eventually built in each province to keep up with steadily increasing patient admissions (see Figure 1 below).

Before the first asylums opened in Manitoba and BC, the insane were housed alongside criminals. In Manitoba, the federal government had opened a penitentiary at Lower Fort Garry in

⁹ Prior to roughly the 1920s, “insanity” was the common vernacular for patients who today might have a wide variety of diagnoses grouped together under the label of mental illness. The use of terms like “insane,” “insanity,” and “lunatic” were used widely into the 20th century. In Canada, the terminology seems to have begun to shift towards terms like “mental illness” and asylums renamed as “mental hospitals” within the first few decades in order to ameliorate public perceptions towards these institutions. The shift in terminology was formalized by changes in legislation. In Manitoba, for instance, such a shift was evident when the Lunacy Act was superseded by the Mental Diseases Act in 1920 (Carr & Beamish, 1999).

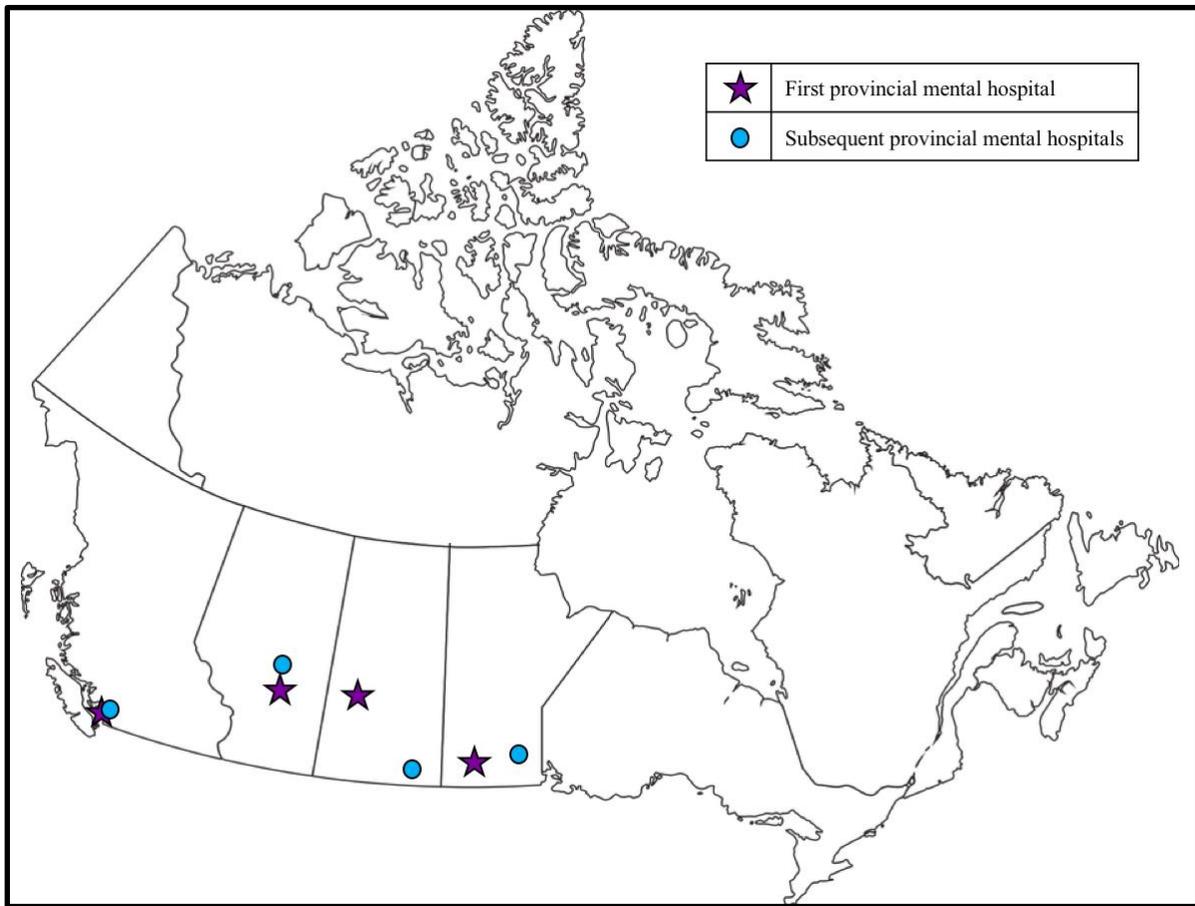


Figure 1.1. Map of Canada displaying the first and second provincial mental hospitals constructed in the western provinces. In BC, the Royal Hospital in Victoria was converted into the Provincial Lunatic Asylum in 1872, but relocated to New Westminister (shown on the map) on the lower mainland in 1878 where it remained. Essondale Hospital was opened near Coquitlam in 1913 (Gee, 1953; Kelm, 1994b). In Alberta, the Ponoka Insane Asylum opened in 1911 (Bow, 1936) and the Provincial Mental Institute in Oliver/Edmonton opened in 1923 (Dick, 1924). The asylum in North Battleford opened in 1914 (Dickinson, 1989),¹⁰ followed by the Weyburn Mental Hospital in 1921 (Souris Valley History Book Committee, 1986). Finally, in Manitoba, the Selkirk Lunatic Asylum opened in 1886, and the Brandon Asylum for the Insane opened in 1892 (Carr & Beamish, 1999; Pincock, 1951a).

¹⁰ More accurately, the institution was actually established in the town of Battleford and was initially known as Battleford Mental Hospital (e.g., MacNeill, 1925) or The Mental Hospital Battleford (e.g., MacNeill, 1936) until the mid-to-late 1930s when North Battleford began appearing more frequently in annual reports (e.g., MacNeill, 1938a, 1938b). However, as other scholars have done, the hospital will be referred to throughout this project as having been located in North Battleford for the sake of clarity (e.g., Dickinson, 1989; Dyck & Deighton, 2017).

1871 where both convicts and the insane were incarcerated together. This persisted until 1879 when the provincial government required that these populations be housed in different parts of the institution (Carr & Beamish, 1999). Likewise, mental patients on the west coast had been housed at the Victoria Gaol and, eventually as a consequence of overcrowding, select cases were admitted to the Royal Hospital in Victoria (Gee, 1953). The necessity of an independent facility for the treatment of mental cases in BC became readily apparent because “[b]oth the gaol and the Royal Hospital admitted only men, and a real problem presented itself with the appearance of the first female patient” (Gee, 1953, p. 15). As a result, in October of 1872, the Royal Hospital was subsumed under the Department of the Provincial Secretary and transformed into the province’s first asylum. The asylum was then relocated to New Westminster on the mainland in 1878 after the seven patients receiving care in 1872 had ballooned to 37 patients five years later (Gee, 1953). The newly relocated Provincial Lunatic Asylum served an important role in BC’s early development, not least because it was the first provincial institution funded after BC became a province (Scott, 2011).

Manitoba, on the other hand, did not open its first asylum until the mid-1880s. The situation at the penitentiary at Lower Fort Garry—whereby the insane were kept in different areas of the building than convicts after 1879—proved satisfactory to meet the needs of the province for a time. However, the act of separating the two populations led to a rise in patient numbers because “families who had been reluctant to surrender afflicted relatives to a penitentiary now allowed them to enter the institution” (Carr & Beamish, 1999, p. 46). Eventually, the provincial government recognized the need for a dedicated institution for the growing number of insane cases. In response, a lunatic asylum was built in Selkirk and opened in May of 1886 (Carr & Beamish, 1999). It turned out, however, that the facility at Selkirk was

unable to meet demand as “[n]ew settlers [were] pouring into the West” and Manitoba had traditionally been responsible for caring for the insane from the North-West Territories (Carr & Beamish, 1999, p. 47). As a result, a building that had been recently constructed in Brandon for delinquent boys was repurposed as a second asylum in 1892 (Carr & Beamish, 1999). A few years before the Brandon Asylum was opened, however, a separate Home for Incurables had been erected in Portage la Prairie to care for a subset of the population “suffering from various mental and physical ailments, who could no longer receive hospital care” (Kurbegovic, 2015, p. 303).

While Manitoba opened its first two mental institutions within less than 10 years of one another, it took several more decades for BC to open its second one. Anticipating that the need for institutional care would continue to expand, the government “secured 1,000 acres at the junction of the Coquitlam and Fraser Rivers” in 1904 and quickly began “the work of clearing land and erecting temporary buildings” (Gee, 1953, p. T 16). Three years after construction began, the first permanent building on the site was completed in 1913. The Coquitlam site was given the name Essondale Hospital after the Provincial Secretary at the time, Dr. Henry Esson Young. Eleven years later, another building was erected at Essondale Hospital that enabled patient admissions to be centralized there instead of at the New Westminster site. Although Essondale Hospital would become the primary mental institution in the province for decades to come, the government saw value in opening another facility—the Colquitz forensic unit located on Vancouver Island—in 1919 (Gee, 1953).

By the time BC had built its second mental institution in 1913, both Saskatchewan and Alberta had already entered Confederation back in 1905 (Friesen, 1984). Because both of these areas belonged to the vast collection of settlements composing the North-West Territories prior

to 1905 (Friesen, 1984), the insane from what would become Saskatchewan and Alberta had been cared for at different locations in Manitoba. Those in Saskatchewan needing care had been incarcerated at Stony Mountain Prison (Dickinson, 1989; Melville Whyte, 2011), while those from Alberta were housed at the Brandon Asylum (“History of Alberta Hospital,” 2004).

Within a few years of becoming a province, construction began on Alberta’s first mental institution—the Ponoka Insane Asylum. After opening its doors in 1911 (Bow, 1936), several additional buildings were constructed throughout the following two decades to accommodate increasing demand for institutionalized mental health care in the province (e.g., Baragar, 1931b). Originally under the jurisdiction of the Department of Public Works, the administration of the Provincial Mental Hospital in Ponoka, as it became known, was brought under the governance of the Department of Public Health in 1922.¹¹ The same year, a Home and Training School for Mental Defectives in operation in south Edmonton also came under the purview of the Department of Public Health from the Department of Education (Laidlaw, 1923). While the facility for mental defectives was relatively small, a larger one capable of housing 200 patients was nearing completion at Oliver—located “nine miles from the centre of the city” of Edmonton (Laidlaw, 1923, p. 7). The following year, however, the Department of Public Health made the decision to transfer the mental defective population from the Home in south Edmonton—which was subsequently closed—to what had been the Hospital for Returned Soldiers in Red Deer rather than to Oliver (Laidlaw, 1923; Dick, 1924). Any veterans considered insane still at the facility in Red Deer were transferred to Ponoka in advance of the arrival of mentally defective

¹¹ While the administration of the hospital came under the Department of Public Health in 1922, “The farm was transferred to the Department of Agriculture [with] the Department of Public Works retaining the public utilities, that is, the water supply, heating, lighting, etc” (Laidlaw, 1923, p. 7).

children in July. In turn, it was decided that the new facility in Oliver—named the Provincial Mental Institute—would essentially be a holding facility for “the chronically insane,” whereas those undergoing active treatment would remain at the Provincial Mental Hospital in Ponoka (Laidlaw, 1924, p. 5).

During the same year that the first mental institution opened in Alberta, Saskatchewan also began constructing their first facility in the north western part of the province (Melville Whyte, 2011). Although much of Canada was experiencing a recession that lasted into 1915 (Davies & Keshen, 2016a), Saskatchewan’s Department of Public Works forged ahead with construction and the asylum in North Battleford opened in 1914. While arguably a more remote and expensive locale, North Battleford offered picturesque surroundings deemed important at the time to the restoration of body and mind (Dickinson, 1989). Following less than a decade later, the mental hospital in Weyburn, in the southeastern corner of the province, opened in 1921 (Dyck & Deighton, 2017). Although it was “designed as an architectural work of art...[it was] run in a way that prioritized economic efficiency over patient care” (Dyck & Deighton, 2017, p. 15). It did not take long, then, for the hospital in Weyburn to face many of the same problems that other mental hospitals in Canada and abroad were also facing during the first decades of the 20th century (Grob, 1994).

Mental Institutions: World War I and the Interwar Years

At a time when the most recently constructed mental institutions in the west were navigating their first years serving their respective provinces, the whole of Canada was thrust into turmoil when the British Empire declared war on Germany in August of 1914. Despite the fact that Canada enjoyed more autonomy as a Dominion (as opposed to a colony), it was still largely expected that Canada would join the war effort. It was not a surprise, then, when Britain

initially requested 20,000 men. In reality, the willingness of Canadians to enlist led to upwards of 100,000 joining the war within the first year. However, more personnel were consistently needed as the war progressed leading to a controversial federal policy of conscription toward the end of the conflict (Tennyson, 2015). In effect, both recruitment efforts and conscription would impact hospitals across the country. Physicians in Alberta, for example, were eager to enlist, even leaving some rural communities without an available doctor (Lampard, 2016). Physicians, however, were not the only positions left vacant. In BC's mental hospitals, "Many of the nursing staff and Dr. Doherty himself [the medical superintendent at New Westminster and Essondale] left to join the armed forces" (Foulkes, 1961, p. 6; see Appendix A for a list mental hospital superintendents, provincial psychiatrists, and cabinet ministers for each western province).

Conditions in many mental hospitals prior to and during 1914 could scarcely have been considered optimal, though certainly the departure of staff during wartime only exacerbated matters. "Serious overcrowding" plagued institutions like the one in New Westminster (Foulkes, 1961, p. 5). Even Essondale Hospital, which had only opened its doors in 1913, was already experiencing an excess in patient population (Foulkes, 1961). The situation was so bad in Manitoba, according to Carr and Beamish (1999), that a group of concerned citizens helped bring about the first post-war mental hygiene survey in the province the year after the war ended.

Part of the problem stemmed from a growing patient population composed primarily of those with chronic conditions who seemed to benefit minimally from existing treatments. This, however, was not new for asylums in Europe and America who had long been struggling with this reality. As the historian of psychiatry, Gerald Grob (1994), has articulated:

The creation of asylums in the early nineteenth century rested on the assumption that mental disorders, if identified early and treated promptly, were curable. This optimistic

faith, however, had little basis in fact. Many insane persons—whether treated or ignored—failed to improve or recover, and the duration of their illness was often measured in decades rather than weeks or months. (p. 103)

Moral treatment had been the primary modality used to manage these cases throughout much of the 19th century. Jennifer Bazar (2013), a historian and curator, explained that

Although individual differences existed in the application of moral treatment across institutions in Canada and the United States, there are generalities that were commonly shared. In broad terms, the adapted North American variety of moral treatment emphasized the classification and separation of patients by sex and type of insanity along with employment, appropriate entertainment, and activities to distract the mind. Proper hygiene, sufficient diet, and a purpose-built institution that provided the optimal environment for a cure were also considered central. (p. 88)

While this approach to moral treatment had been implemented in the earliest institutions in pre-Confederation Canada (see J.E. Moran, 2000), it began late in western Canada on account of asylum construction only occurring in the half-century following Confederation. In Manitoba, patients had been employed on the farm or inside the hospital for both economic and therapeutic reasons, and had enjoyed intentionally structured amusements, since the 1890s (Refvik, 1991). In BC, however, moral treatment principles became normative in the decade preceding the First World War whereby emphasis was placed on “1) essential medicines, 2) good food (there was a shortage though, each patient, for example, being allowed only one egg per year and that at Easter), 3) regularity of living habits, 4) employment, 5) amusement, and 6) recreation” (Foulkes, 1961, p. 4).

During the First World War, then, it is not surprising that many of the principles of moral treatment remained at the forefront of how life in the hospital—inclusive of treatment—was structured. Consistent with Bazar’s (2013) assessment, in most cases, patients tended to be segregated by gender and according to ailment. At Ponoka, for instance, a continuing treatment building for women was opened in 1915 where female chronic patients could be housed separately from those suffering from conditions deemed acute (“Historical notes – A.H.P.,” n.d.). Moreover, according to Dickinson (1989), “the dominant modes of treatment...consisted primarily of ‘water and work’” (p. 25). At the institution in North Battleford, patients were also employed in a variety of ways including working on the farm, in the laundry, and in maintenance roles. Along with the therapeutic value of employment, physicians also made use of hydrotherapy—a technique that used water in order to calm disturbed patients (Dickinson, 1989; Foulkes, 1961). Of course, supervising patients in their work, monitoring hydrotherapy treatments, and diagnosing patients upon admission all required adequate staff, which was made more challenging on account of the war (e.g., Foulkes, 1961). Like most other institutions in North America and abroad by this time, patient populations were expanding, staff was limited, and overcrowding was rampant, which meant that most facilities were custodial rather than active treatment centres despite the original optimism of asylum pioneers (Dickinson, 1989; Grob, 1994; Shorter, 1997).

The end of the war finally arrived with the signing of an Armistice on November 11, 1918. Canadians responded with “massive celebrations and outpourings of national pride” (Davies & Keshen, 2016a, p. xvi). Yet, the end of the war only marked the beginning of the long road towards financial recovery. The federal government found itself struggling to manage significant debt while also “facing the challenge of funding veteran programs” (Davies &

Keshen, 2016a, p. xvi). Moreover, a stifling recession took hold that impacted a variety of industries well into the 1920s (Davies & Keshen, 2016a). In Alberta, for example, “Plunging postwar wheat prices, ultimately to less than one dollar a bushel, produced a collapse in rural [areas]” and the burgeoning oil industry fared poorly on account of high drilling costs (Davies & Keshen, 2016a, p. xvi). Likewise, Saskatchewan also experienced a collapse in their wheat industry post-war (Dyck & Deighton, 2017).

Infectious Diseases

In the aftermath of the war, Canada also faced a number of health care crises—some of which had a direct impact on mental hospitals and all of which demanded resources and money that was scarcely available. Complicating matters was the absence of a federal health department until 1919, which had left municipalities and provinces largely responsible for the health of their own citizens (McCuaig, 1999). According to McCuaig (1999), until the government surveyed the damage of the Great Depression in the mid-1930s, “the dominion would invoke the putative limitations of the BNA Act to avoid any long-term responsibility” (p. 150). Thus, when soldiers brought Spanish influenza home from the front lines, it largely fell to the provinces to manage outbreaks. In Alberta, the Spanish flu arrived in October of 1918 and “it rapidly spread throughout a province that was under-doctored and under-bedded” (Lampard, 2016, p. 161). The situation quickly became a public health crisis wreaking havoc in Canada culminating in thousands of deaths across the country by April of 1919 (Humphries, 2016). Relief was not experienced in Saskatchewan until 1920 (Spencer, 2007) and 1921 in Alberta where only three cases of influenza had been reported that year as compared to 2,753 cases the year prior (Laidlaw, 1922a). Even though the pandemic eventually subsided, other infectious diseases—such as tuberculosis and venereal diseases—continued to pose ongoing challenges throughout

the interwar years (Lampard, 2016). Importantly, the management of these conditions would intersect with mental hospitals throughout this period both in terms of treatment and prevention.

Tuberculosis (TB), a bacterial infection most often affecting the lungs, was a leading cause of death in Canada by the turn of the 20th century. Known to be contagious but without a cure until streptomycin in 1944, treatment of the disease tended to involve isolation in sanatoria, and a variety of treatments were experimented with including tuberculin injections and surgical intervention. Prevention also became paramount whereby attempts were made to address social causes (e.g., poverty, alcoholism) and strategies were implemented in order to minimize the spread of germs (McCuaig, 1999).

With the federal government preoccupied with caring for veterans after the war and municipalities shirking responsibility for TB care, the provinces were forced into overseeing sanatoriums with the western provinces tending to fair better than those in the east (McCuaig 1999). This can be seen in Alberta in 1921 when the infirmary was expanded at the Central Alberta Sanatorium “at the expense of the Province of Alberta” (Laidlaw, 1922a, p. 14). Like sanatoria, mental hospitals were also under provincial jurisdiction and had to contend with TB cases within their walls. Superintendents were forced to manage cases of TB while also protecting existing patients from new staff and patients who might bring the disease into the hospital. At the mental hospital in Weyburn, the policy on admission was clear: “No patient suffering from contagious or infectious disease can be admitted” (Mitchell, 1926, p. 102). In Ponoka in 1935, “Physical examinations and X-ray plates of the chests on all new members of staff continued to be done routinely” (Baragar, 1936c, p. 70).

Caring for patients with TB, however, was often complicated by the ongoing constraints facing mental hospitals during the interwar years. In Manitoba’s provincial mental institutions in

1930, it was reported that “...Respiratory Disease and especially Pulmonary Tuberculosis, figure far too largely among the causes of death. Overcrowding and utterly unsatisfactory arrangements for isolation and treatment are the explanation” (Mathers, 1931, p. 5). In his 1935 annual report, J.W. MacNeill (1937b), the superintendent at North Battleford and Commissioner for Mental Services, indicated that “The crowded condition of the hospital makes it very difficult to deal with cases of tuberculosis...It is a danger both to our non-infected patients and likewise to the staff working on those wards” (p. 68). A year later, A.L. Crease (1936b), Provincial Psychiatrist and General Superintendent of BC’s mental institutions, stated

With psychotic patients there is an increased susceptibility to tuberculosis, and patients suffering from this malady should have a separate unit for their care and treatment. It is not proper that they should be confined to the same ward with others who are not so afflicted. (p. V 11)

Thus, hospital administrators in the west had to manage the challenges posed by mental illness and be vigilant for threats posed by contagious diseases—all while contending with hospital conditions that complicated these tasks.

Venereal Disease and Malarial Therapy

Aside from influenza and TB, the First World War also amplified the problem of sexually transmitted diseases, then amalgamated under the label of venereal disease (VD). As the Chief of the Federal Epidemiology Division in 1953 claimed, “The problem of venereal disease control in Canada has largely been associated with the two world wars...During the First World War venereal disease rates amongst the Canadian troops overseas reached as high as 220 per 1,000 per year” (Peart, 1953, p. 160). High incidence within the army also coincided with increased infections within the general population during and after the war (Peart, 1953). The federal

government responded through legislation and monetary support. Several months before the end of the war, for instance, “it became a crime for a woman with venereal disease to infect, invite or solicit sex with a soldier in Canada” (Bogaert, 2017, p. 1). Besides legislation, in 1919, the federal government also responded to the mounting problem by instituting a grants program that offered funds to the provinces on a yearly basis (Peart, 1953), clearly leaving care for VD to the provinces like in the case of TB and mental illness.

Controlling the spread of VD intersected with mental hospitals most notably in the case of untreated, or unsuccessfully treated, syphilis. After initial exposure to syphilitic infection, uncomfortable physical symptoms on and around the genitals would typically arise, but then, for a time, these symptoms would often clear up (Shorter, 1997). However, “Within a year, [the infection] might have invaded the meningeal lining of the brain and spinal cord though remaining clinically silent” (Shorter, 1997, p. 54). In many cases where a person’s body was unable to fight off the infection on its own, symptoms would reappear years and even decades later (Shorter, 1997). Presenting with an array of possible neurological and psychiatric symptoms like dementia, depression, psychosis, muscle tremors, and impaired speech, patients with neurosyphilis worsened quickly as the effects accumulated (Albert, 1999). There were various types of neurosyphilis (i.e., syphilis that had infected the nervous system)—such as asymptomatic, tabes, and general paresis (Warren, 2000)—that resulted in many of these individuals spending the latter part of their lives deteriorating in mental hospitals adding to the number of chronic cases that amplified overcrowding (Shorter, 1997). Demonstrating the magnitude of the problem, “Moore (1933) reported that in the prearsphenamine era, approximately 25 percent of people who contracted primary syphilis, with or without treatment, would eventually develop some form of neurosyphilis” (Warren, 2000, p. 88). These cases often

composed a sizeable number of admissions at mental hospitals in western Canada. At BC's New Westminister institution, the 1902 annual report indicated that "General Paresis formed 12% of the total number of admissions for the year" (Foulkes, 1961, p. 4). In the 1935 annual report from Ponoka, it was reported that "As in former years, a large number of [patients admitted by Warrant of the Attorney General] were admitted for special treatment for neuro-syphilis, drug addiction and for observation, and were classified 'without psychosis'" (Baragar, 1936c, p. 69).

Alberta proved to be a leader in addressing VD—both outside and within mental hospitals. The province's efforts to proactively identify and treat VD was commended in the 1921 annual report of the Department of Public Health:

During the fall of this year Dr. Harold Orr, the Director of this branch, visited the various clinics in Canada and the United States. Dr. Orr informs me, and my own investigations show, that the work of the Venereal Diseases Branch in this province is not surpassed by that of any other province. (Laidlaw, 1922b, p. 9)

The success of the efforts in Alberta rested on a number of initiatives. Identifying cases early among the general public was a crucial step in containing and treating VD. Efforts to educate citizens was a crucial avenue for this, especially since "Every person suffering from a venereal disease [was] required by regulations to place himself under treatment by a regularly qualified medical practitioner" (E.C. Smith, 1924, p. 36). Education initiatives quickly seemed to pay off, especially in regards to those with syphilis:

It is particularly encouraging to note the readiness with which syphilitics are applying for treatment. The fact that syphilis is a painless and insidious disease, has in the past been responsible for a large number of untreated persons passing gradually into a fatal stage of the disease. (E.C. Smith, 1924, p. 36)

Apart from volunteering that one was infected, the government also instituted measures to identify cases within criminal and mentally ill populations upon entry into provincial institutions (Orr, 1931). The Wassermann blood test—developed a year after the bacteria causing syphilis, *Treponema pallidum*, was identified in 1905 (Ghani, Murthy, Jain, & Sarin, 2018)—was often used to identify or confirm infection (e.g., Orr, 1926, 1931). However, it was noticed fairly early on that the Wassermann test was imperfect (Ghani et al., 2018) necessitating that physicians approach cases of syphilis detected by the test and those not in different ways (e.g., Orr, 1931). Nevertheless, by 1933, Alberta’s division of social hygiene was intentional in its efforts at early detection: “We believe this work will produce a marked reduction in the incidence of symptomatic neuro-syphilis in the years to come, and should result in a reduction in the number of cases of general paresis of the insane admitted to our institutions” (Bow, 1935, p. 15).

Once infected individuals were identified, anti-luetic treatment could be applied. Before the emergence of a promising compound called Salvarsan, or arsphenamine, in 1909 (Braslow, 1997), attempts to treat syphilis had primarily been through a variety of other heavy metals including mercury and arsenic salts (Burke, 1925). However, “arsphenamine soon proved its inability to deal alone with syphilis infection in its entirety” necessitating the development of additional compounds and treatments (“Bismuth in syphilis,” 1942, p. 730). Other arsenical formulations were introduced including Tryparsamide in 1919 (Burke, 1925) and bismuth beginning around 1921 (“Bismuth in syphilis,” 1942). Often these compounds would be used in tandem in an attempt to arrest syphilitic infections (“Bismuth in syphilis,” 1942). Eventually, penicillin would be discovered in 1939, which would largely eradicate syphilitic infection in a matter of days (Arnold, 1984).

During the First World War, around the time that arsenic compounds were the height of anti-luetic treatment, a new therapy for syphilis was introduced in Austria by Julius Wagner-Juaregg. In the late 19th century, Wagner-Juaregg had seen curious improvement in the supposedly incurable patients with general paresis at the Graz Psychiatric Clinic after they experienced high fevers. In an attempt to produce artificial conditions that would induce fevers to test his suspicion that this might help to treat such a notoriously untreatable condition, Wagner-Juaregg found that patients simultaneously infected with malaria would experience high fevers after which the infection and symptoms would abate. Though it was seemingly horrific to intentionally infect patients with malaria when they already had neurosyphilis, Wagner-Juaregg did so knowing that a substance called quinine had already been discovered and was capable of halting the malarial infection and its accompanying fevers. His first successful result using this method of treatment finally came in 1917.¹² Where heavy metals seemed to be minimally effective, Wagner-Juaregg claimed to have successfully treated psychiatric symptoms produced by neurosyphilis in a particularly ingenious—albeit risky—way (Albert, 1999; Braslow, 1999b; Tsay, 2013).¹³ The hope offered by this treatment was captured well by the superintendent of BC’s mental hospitals in 1927 when he stated: “[M]alarial and tryparsamide treatments for general paresis, as time goes on, seem more promising. It is thought that remissions are much longer and the psychosis less acute by the administration of these agents... In some places even cures are mentioned” (Crease, 1928, p. T 10). Ultimately, the successful treatment of neurosyphilis via a therapeutic technique enacted directly upon the body would be instrumental

¹² Ten years later, in 1927, Wagner-Juaregg became the first and only psychiatrist to win a Nobel Prize for his work on malarial therapy (Braslow, 1999b; Warren, 2000).

¹³ See Warren’s (2000) critical account for more information on malarial therapy and its efficacy.

in paving the way for a number of other somatic treatments that would emerge in the following decades—of which psychosurgery would be one (Braslow, 1999b; Scull, 1994).¹⁴

Malarial therapy was yet another instance where Alberta forged the way in managing VD. The annual report from 1924 detailed the first uses of intravenous tryparsamide on 12 cases and “inoculation with the malarial parasite” on 14 patients (Cooke, 1926, p. 50). According to T. C. Michie (1961), this was the first time the treatment had been used in Canada. The following year, in a newspaper article appearing the day after Christmas in *The Lethbridge Daily Herald*, Emily Murphy (1925) touted Alberta’s innovative use of this relatively new treatment:

[D]uring the past sixteen months—from September, 1924, until now—the alienists of Alberta have been trying out the marvellous cure for paresis as disclosed by an alienist in Austria, and have actually succeeded in arresting a full 50 per cent. of the cases in our mental hospital at Ponoka. (para. 5)

In the 1929 annual report, it was stated that “Malarial inoculation followed by an intensive course of ordinary anti-syphilitic treatment is still the most satisfactory means of combating this otherwise intractable disease” (Cooke, 1931, p. 60). By 1935, the routine nature of malarial therapy was evident: “The malarial treatment of neuro-syphilitics was carried out as usual. There was a generous number of such cases treated” (Baragar, 1936c, p. 70). It was not until 1951 that malarial therapy was officially replaced by antibiotics in Alberta’s mental hospitals on account of the low number of patients requiring this form of treatment by that time (R.R. MacLean, 1954a).

¹⁴ Chapter 2 addresses the adoption of four major somatic treatments in the 1930s, including psychosurgery.

Of course, Alberta was not the only western province to employ malarial therapy. In BC, it was first used in conjunction with tryparsamide in 1926 (Gee, 1953) with bismuth first appearing in the 1929 annual report (Crease, 1930). Eventually, a fever cabinet was added in 1931 (Crease, 1932a). Further east, correspondence between the superintendents at Weyburn and Brandon in May of 1930 confirmed that malarial therapy was already in use at Brandon and at North Battleford, but not at Weyburn (Baragar, 1930; Campbell, 1930a). In an effort to begin this form of treatment there, Campbell (1930a) requested the following in his letter to Baragar dated May 16: “would it be possible for us to make some arrangement whereby we could send a patient down there to be inoculated so that he could be brought back here to start off the rest of them?” (para. 1). This exchange also hinted at the trouble various mental hospitals in the prairies were having keeping a stock of malarial blood. In his response indicating he was open to receiving a patient from Weyburn, Baragar (1930) concluded by stating “We are [treating] one patient at a time so as to spread out the malaria over as long a period as possible” (para. 1). A few years later, Campbell (1933a) sent a letter to North Battleford requesting “malarial blood...as we have several cases in need of treatment and our strain has passed out” (para. 1). Although J.W. MacNeill (1933), superintendent at North Battleford, had sent a thermos of infected blood in the mail, it turned out that the package had been damaged in transit (Campbell, 1933b). Instead of asking North Battleford to part with more blood, Campbell indicated that “we will endeavour to get a specimen of blood from Brandon, as we can get an express parcel from there handled only by the conductor on the train” (para. 2). The situation in BC was no better: “...it has been found difficult to keep the malaria in active growth. Sooner or later it diminishes and new has to be obtained, often with considerable difficulty, and at times it is almost impossible to procure it” (Crease, 1929, p. X 10). Even with limited access to malaria, the

treatment was clearly used in all of the western provinces to treat a form of VD that posed not only a public hygiene problem, but affected the mental hospital population as well.

The War Wounded and Cases of Shell Shock

In addition to infectious diseases, the First World War also required that the federal government prepare for the needs of those who would eventually return home wounded. The Military Hospitals Commission (MHC) was formed in 1915 and tasked with “preparing Canada to receive not just the war wounded with amputations and other such disabilities but also those who had been gassed,” contracted various infectious diseases, and those who “had developed the ‘shell-shock’ syndrome” (Lampard, 2016, p. 162). The MHC—later the Soldier Rehabilitation Commission—took over care in a number of hospitals in Canada to treat military personnel and “paid hospitals that treated veterans on a fee-for-service basis” (Lampard, 2016, p. 168).

Despite attempts to prepare for the needs of soldiers returning home, the federal government’s treatment of veterans into the interwar years was largely underwhelming. From the perspective of soldiers themselves, “the country they had idealized at a distance turned out to be self-centered and inhospitable” (Morton & Wright, 1983, p. 153). During the interwar years, “Veterans faced not only poor health but also high unemployment and poor social support programs” (Dawe, 2016, p. 380). Part of the problem, of course, was the tenuous financial situation facing the government after the war ended. As mentioned above, the federal government was contending with substantial wartime debt as well as inflation, a post-war recession, and the demand for adequate veteran’s programs (Dawe, 2016; Davies & Keshen, 2016a). At the same time, however, Canada’s perspective towards caring for veterans and other vulnerable populations was also to blame (Humphries, 2010). Specifically,

State assistance to veterans as well as single mothers, the elderly, and the indigent was provided on the assumption that the state had a limited obligation to its citizens, and programs were intended to promote self-sufficiency and independence from government assistance rather than dependence on charity. (Humphries, 2010, p. 522)

This attempt by the federal government to minimize their involvement was also what was seen in the case of health care mentioned above where responsibility largely fell to the provinces in terms of addressing TB, VD, and mental illness.

Unfortunately, for the “more than 15,000 Canadian soldiers...diagnosed with some form of psychological wounds” (Humphries, 2010, p. 503), the situation was no better. The MHC and Soldier Rehabilitation Commission helped to establish institutions where these cases could be treated (Lampard, 2016). In Alberta, for instance, an educational institution for women in Red Deer was turned into a mental hospital for psychiatric casualties before the end of the war (Dawe, 2016). However, the care of neuropsychiatric cases, including those suffering from shell shock or emotional breakdowns, was a contentious issue from the perspective of military medicine and for the federal government responsible for doling out disability pensions (Humphries, 2010). With veterans being required to prove that their condition was a direct consequence of serving in the war, “doctors’ denial that ‘real men’ could legitimately exhibit psychosomatic symptoms in combat meant that thousands of legitimately traumatized veterans were left uncompensated by the state and were labelled as inferior, deviant men” (Humphries, 2010, p. 508).

Although shell shock was inherently psychiatric, there is limited evidence to suggest that it had a significant impact on mental hospitals, at least in western Canada, during the interwar years. We know that psychiatrists who had enlisted in the war—such as C.A. Baragar, then

superintendent at the mental institution in Brandon—had direct exposure to shell shock cases during the war (Dooley, 2004). We also know that there must have been some impact on patient population on account of some of these cases moving to provincial hospitals in the decades following the war when a military hospital closed. This was the case in Alberta, as mentioned above, when any remaining veterans suffering from shell shock at the Hospital for Returned Soldiers in Red Deer were transferred to Ponoka in 1923 to make room for the mentally defective population being transferred from Edmonton (Laidlaw, 1924; Lampard, 2016). In addition, it seems that shell shock may not have been the only reason that soldiers may have undergone treatment at a provincial mental hospital. In BC, for example, it was reported in the 1920 *Annual Report of the Mental Hospitals* that “A certain number of returned soldiers, suffering from various forms of psychosis, not including shell-shock, have received treatment in our Hospitals” (Doherty, 1920, p. Y 7). Nevertheless, there is also evidence to suggest that shell shock may have had a greater impact in eastern provinces like Ontario and Quebec due to veterans being more likely to take up residence in urban centres upon their return (Dyck & Deighton, 2017). In contrast to their counterparts in the east, Saskatchewan, and likely the other prairie provinces, “played more of an economic role in the war by growing vast amounts of wheat for the military. Given the rural character of the province, shell shock was not only less of a problem but also a less visible one...” (Dyck & Deighton, 2017, p. 38). Still, there were mental health reformers, families of the wounded, and members of the public in the east who were raising concerns about whether mental institutions were the most appropriate venue to treat these cases (Dyck & Deighton, 2017). These concerns, as well as broader ones surrounding mental hygiene, would soon arrive in the west. Even if shell shock did not, mental health reform efforts would directly influence mental hospitals during the interwar period.

The CNCMH and Mental Health Reform Efforts During the Interwar Years

In 1918, the Canadian National Committee for Mental Hygiene (CNCMH) was formed with Dr. Charles K. Clarke at the helm (“Canadian National Committee for Mental Hygiene (CNCMH),” 1918). Recognizing the precarious situation facing the country several months prior to the end of the First World War, a brief article announcing the formation of the CNCMH in the *Canadian Medical Association Journal* acknowledged the following:

There doubtless has never been a time when the problems of applied psychiatry have been so urgent to the nation. There never has been a time in which the nervous systems of individuals have been so tried, and never have we realized as now in this world struggle the practical importance of the social problem in hygiene, and the need of well organized consideration of all factors that concern society. (“Canadian National Committee for Mental Hygiene (CNCMH),” 1918, p. 551)

Along with being invested in the professionalization of psychiatry and addressing the needs of veterans, the CNCMH aimed to tackle a host of burdensome social problems such as “crime, prostitution, pauperism, and unemployment; problems in which mental factors are of primary importance” (“Canadian National Committee for Mental Hygiene (CNCMH),” 1918, p. 551).¹⁵ Thus, public institutions, such as schools and mental hospitals, in provinces across the country were of interest to the committee and would be subject to mental hygiene surveys during the interwar years (Dyck, 2013).

The CNCMH was welcomed by many on account of the precarious situation already facing mental hospitals by this time: “The Committee will find much that needs to be done in

¹⁵ See MacLennan (1987) for more information on the role of the CNCMH in the professionalization of psychiatry and psychology.

Canada. Our existing state institutions for the care of the insane and feeble-minded are overcrowded and many who seek admission are turned away” (“Canadian National Committee for Mental Hygiene (CNCMH),” 1918, p. 553). Indeed, this is what the CNCMH surveys found in many of the western provinces. The first survey, conducted in Manitoba in 1919, found “appalling conditions” including the use of restraints and, in one institution, hundreds of patients with only one psychiatrist to care for them (Carr & Beamish, 1999). Likewise, the 1919 survey of the institutions in Alberta also noted significant overcrowding and an abundance of mental defectives (Kurbegovic, 2019). In BC the same year, it was recommended that more medical staff be employed to address the increasing patient population (Doherty, 1920). Finally, in 1920, the CNCMH evaluated the situation in Saskatchewan and found that North Battleford was also overcrowded, though the recently opened Weyburn hospital was expected to offer some relief (Dyck & Deighton, 2017).

Overcrowding, as well as other concerns identified by the CNCMH surveys, was hardly surprising to hospital administrators. This can be seen in BC, for example, in the 1920 annual report summarizing the recommendations of the CNCMH survey conducted the previous year: “...many recommendations were made by the committee, some new and some which echoed the opinions already expressed in previous reports from the Hospital” (Doherty, 1920, p. Y 6). As Le Bourdais (1947b) pointed out several decades later, overcrowding was commonly mentioned as problematic and appeals were repetitively made for more accommodations to address the situation prior to and throughout the interwar years (e.g., Bow, 1935; Gee, 1953; MacNeill, 1926; Mathers, 1931). At the same time, the situation was sometimes normalized by mental hospital superintendents. For instance, the BC Royal Commission on Mental Hygiene—a provincial initiative to assess its own mental institutions in the mid-1920s—claimed that the

rising number of patients was on par with the experience across the country and abroad (Rothwell, Odlum, McKenzie, Hayward, & Harrison, 1927). A.T. Mathers, Provincial Psychiatrist in Manitoba, was quoted in the report explaining the similar situation facing Manitoba's institutions:

...while there has been an actual increase in the number of patients under care, the actual number of cases of mental disease in the Province has probably increased little, if any.

This seems to indicate that what has actually happened is that people at large have a greater confidence in their mental hospitals and that a great many patients are now being admitted to care who in former years would have been kept at home simply because their interested relatives were loath to trust the unfortunate patient to the care of institutions that were regarded with so much distrust and suspicion. (Rothwell et al., 1927, p. CC 10)

Mathers' rationale—and the Royal Commission's use of his comments in their report—served to explain the increase in patient admissions while simultaneously bolstering the mental hospital, and ultimately the psychiatric discipline, as an effective enterprise. It was also a political move to show that the problem was not as concerning and, in fact, may have been a positive sign for mental hygiene in Canada. However, the problem of overcrowding would dog mental hospitals into the next war.

It made sense, then, that one of the goals of the CNCMH was to “reduce the number of people in asylums, believing that these institutions were outdated and expensive” (Dyck, 2013, p. 39). There were a variety of suggestions made by the CNCMH and other reform initiatives throughout the interwar years for how overcrowding could be curtailed in an effort to move away from large-scale mental institutions while also addressing social problems arising from the mentally ill and defective populations. Most notably, preventative measures were consistently

advocated for. In Alberta, for instance, sterilization was supported as a preventative measure and was weighed against the high cost of incarceration by the provincial government in the years that followed the CNCMH survey (Kurbegovic, 2019). Moreover, psychopathic facilities, either situated within mental hospitals or general hospitals, where acute cases could be addressed with the hope of preventing long-term institutionalization was often recommended (e.g., Doherty, 1920). In Manitoba, the opening of the Winnipeg Psychopathic Hospital in 1919 nearby the Winnipeg General Hospital was seen as a positive step towards preventing admissions to mental hospitals. However, even it quickly became overcrowded and turned out to be costly to run (Carr & Beamish, 1999). More than a decade later, a psychopathic ward at the Regina General Hospital was opened in 1930 (Rothwell, 1938). In neighbouring Alberta, a psychopathic ward at the University of Alberta Hospital opened its doors in January of 1931 (Baragar, 1932), but to the dismay of C.A. Baragar, who had moved from Manitoba to Alberta to take up the role of Commissioner of Mental Institutions, the ward was closed in 1933 (Baragar, 1936b). Instead, the province pursued preventative strategies through mental hygiene clinics—later renamed guidance clinics—in various towns and cities throughout the 1930s (e.g., Baragar, 1931b; Baragar, 1936a; R.R. MacLean, 1941a). In BC, a psychopathic wing connected with the Vancouver General Hospital seems to have been suggested as early as the 1918 annual report (Doherty, 1919). While psychopathic wards were eventually opened within the mental hospital and used for triage purposes (e.g., Crease, 1932a), it would take until 1949 for a purpose-built facility—the Crease Clinic of Psychological Medicine—to open on the grounds of the Provincial Mental Hospital at Essondale (Gee, 1953). During the interwar years, however, there were also additional attempts at preventative measures taken in the 1930s, such as the opening of the Child

Guidance Clinic in Vancouver in 1932 and a similar unit in Victoria a few years later (Gee, 1953).

Aside from the move towards addressing cases before conditions became chronic and difficult to treat, there were also suggestions made by reformers in order to improve the treatment and detainment of the mentally ill. In Saskatchewan, for example, it was suggested that the “airing court [be replaced] with recreational grounds at the North Battleford institution” (Dyck & Deighton, 2017, p. 40). In BC, it was recommended that occupational therapy be prioritized “since recoveries are more frequent when patients are usefully occupied” (Doherty, 1920, p. Y 6). It seems that the advice given as a result of various surveys during the interwar years were addressed when possible, yet reform required financial resources that were scarce after the First World War and stakeholders needed to be committed to the mental hygiene project. This was one of the reasons that reform was not as effective in provinces like Saskatchewan where activists within the province often prioritized other social issues such as alcoholism and gambling (Dyck & Deighton, 2017). The priorities of provincial governments in terms of social policy, and the unanticipated devastation of the Great Depression, also hindered reform efforts and the state of mental hospitals by the eve of the Second World War.

Provincial Politics: The Interwar Years

When Canada entered the First World War in 1914, a Conservative government had been in power in BC dating back to 1903 when partisan politics initially arose in the province. By wartime, “scandals, allegations of corruption, and the economic downturn tarnished the Conservative standard” allowing room for the Liberal party, which had initially been formed in 1912, to win a majority government in the November 1916 election (Hak, 2013, p. 45). While Conservatives would regain control from 1928 to 1933 (Dobie, 1980; Prince, 1996), the Liberals

largely dominated provincial politics until a wartime Liberal-Conservative coalition was elected in 1941 (Resnick, 2000).

While the Liberals and Conservatives in BC were one another's most notable rival, there were other parties who attempted to influence government policy. Although never in contention to lead the province, "there was a sufficiently well organized Labor party to present candidates in every provincial election and to elect members to the legislature in 1920, 1924, 1928, and 1933" (Dobie, 1980, p. 72). This party contributed to a number of policies that came to fruition throughout this time including the emergence of Old Age Pensions. A small group of farmers and labourers also exerted some influence on whichever party was in power, such as in the case of the Farmer's Party in 1920 (Dobie, 1980). Moreover, a more progressive agenda was promoted by the BC Cooperative Commonwealth Federation upon its formation in 1933 (Price, 2000). Around the same time, the Social Credit party was formed, though its influence was limited for several decades until the party came to power in 1952 (Kuffert, 1999/2000), ending the Liberal-Conservative coalition that had been in place since the early 1940s. However, according to Dobie (1980), these third parties did not have the same impact on keeping the dominant parties in line as was the case in the prairie provinces.

In contrast, the role of third parties would be pivotal in the political history of the prairie provinces. Prior to the First World War, as Francis and Kitzan (2007a) have explained, the prairies were conceived of and touted as "a Promised Land" (p. IX) whereby "thousands of immigrants flocked to the Canadian West near the turn of the century in search of utopia" (p. XII). The prairie provinces were driven in part by the optimism and economic potential put forth by boosters, as well as the desire to retain a form of British identity especially with the influx of immigrants coming from non-British countries (Dyck & Deighton, 2017; Francis & Kitzan,

2007a). At the same time, Christian social gospel ideals undergirded a prairie mentality espousing morality and care for the collective rather than the individual (Francis & Kitzan, 2007a).

By the end of the First World War, liberals were leading the governments in all three of the prairie provinces (Dyck & Deighton, 2017; Kurbegovic, 2019). While the Liberal parties in both Saskatchewan and Alberta had been in power since both had entered Confederation back in 1905 (Dyck & Deighton, 2017; Kurbegovic, 2019), Manitoba had also been under Conservative party control more than once since it became a province. The most recent Conservative rule, however, had ended in the 1915 election when the Liberals returned to power. Although Liberal politics largely dominated the prairies until the early 1920s, with some exception in Manitoba, it would not entirely disappear with the emergence of powerful third parties in Alberta and Manitoba. Rather, liberalism was always present in one form or another even within these parties (Kurbegovic, 2019).

It would be the United Farmers who would rise up and come to power in Alberta in 1921 and in Manitoba in 1922 (Davies & Keshen, 2016a; Kurbegovic, 2019). Reacting to “perceived economic and political inequalities” (Rennie, 2007, p. 244), both grass-roots movements were driven by populist sentiment and agrarian ideals (Kurbegovic, 2019). In the case of the United Farmers of Alberta (UFA), formed in 1909, collective action proved fruitful in forcing the Liberal government in the 1910s to support initiatives such as “co-ops and rural hospitals, enact[ing] prohibition, suffrage, women’s property rights, and introduc[ing] democratic reform” (Rennie, 2007, p. 245). However, a controversial federal decision surrounding trade in 1911 demonstrated to farmers that “independent political action alone could solve their problems and realize their ideals” (Rennie, 2007, p. 245). Similarly, the United Farmers of Manitoba (UFM)

won their provincial election a year later by promising to be a non-partisan and efficient government that prioritized improving the failing economy. In fact, the province was losing thousands of dollars each day by the time the UFM took over (Kendle, 1979). Ultimately, the economic situation facing both the UFA and UFM was fueled by a post-war economy suffering from low grain prices and discontent among labour groups, among other issues (Kurbegovic, 2019).

While Saskatchewan was governed continuously by the Liberal party until the late 1920s, the leadership was keenly aware of the potential threat that might be posed by farmers groups. According to Spencer (2007), after W.M. Martin was elected premier of the province in 1916, he “knew that the support of the farmers and farm organizations was essential to winning and keeping power in Saskatchewan” (p. 33). Still, these groups posed the “greatest threat following war’s end” (Spencer, 2007, p. 37). To keep these groups at bay, the Liberals were strategic in their engagement with farmers, which encouraged the latter to vote for their party. For example, the same year that the UFA won the provincial election in Alberta, the president of the Saskatchewan Grain Growers’ Association was appointed to Saskatchewan’s provincial cabinet by the premier. The following year, when C.A. Dunning replaced Martin as premier, it was clear that a strategic decision had been made as Dunning had important ties to the agricultural community in the province. Like their counterparts in the other prairie provinces, the post-war economy was not favourable for Saskatchewan farmers, which meant that the Liberal government constantly had to monitor farming groups for attempts at political organization. As the Conservative party gained some ground in the 1926 election, they posed another threat to the Liberals who worried that the populism and desire for change held by the Tories may also attract farmers who may not be satisfied with the current government (Spencer, 2007).

Amidst ongoing antagonism towards immigrants and attempts to hold onto Anglo-Protestant ideals (Dyck & Deighton, 2017; Hewitt, 2007; Spencer, 2007), governments across the prairies in the 1920s also focused on economic reforms to address the precarious situation left in the wake of the war the previous decade. For instance, the UFM government under the leadership of John Bracken increased taxes in Manitoba while restricting spending (Kendle, 1979). Led by John Brownlee from 1925, “the UFA...was primarily concerned with tackling the economic issues in the province, namely the issue of freight rates, railways, and the federal transfer of control of the lands and natural resources to Alberta” (Kurbegovic, 2019, p. 165). Fortuitously, by the mid-1920s, the economic situation in the prairies had begun to look up (Hewitt, 2007). An increase in grain prices helped, but strict economic policies in some of the provinces—like in the case of Manitoba under Bracken—also helped bring about modest recovery (Kendle, 1979).

The focus on economic recuperation was not isolated to the prairie provinces. In BC, despite the existence of two major parties contending for power in the province throughout the first half of the twentieth century, their platforms and policies were not particularly distinct in reality. Edith Dobie (1980) summarized this well:

Both urged railway expansion, exclusion of Asiatics, increase of bonded indebtedness in order to bring population and business into the province. Likewise, both favored provision by the state of means for settling labor disputes, also government regulation and ownership of railways, telephones, and public utilities in general. Finally, both supported government aid for those settling upon the land, abolition of property tax and extension of the application of income tax, health insurance, old age pensions, mothers' pensions. (p. 70-71)

Still, both parties needed to address key economic concerns and “the political leaders endeavored to satisfy as many groups as possible” (Dobie, 1980, p. 71). Thus, with the economy being of utmost concern across all of the western provinces in the 1920s, social policy—which would have included care for the mentally ill—seems to have been given less attention in most provinces.

Residualist Social Welfare Spending and the Impact of the Great Depression

One way to understand how social policy was conceived of by provincial governments during this period is to consider their approach towards intervention in matters of welfare. “As a political activity by the state,” explained Prince (1996), “social policy involves the authoritative expression of values and the allocation of resources, statuses, and opportunities within our society” (p. 240). There are two different—albeit simplistic—“paradigms or mini-ideologies” that can be used to understand government intervention, or the lack thereof, in regard to matters of social policy in Canada—namely, residualism and institutionalism (Prince, 1996, p. 244). Residualism is characterized by a more hands-off approach, leaving much of the work to local entities (Prince, 1996). Such an approach supports restricted state intervention, offers limited services, expends less state money on welfare matters, and offers assistance “as a safety net, for those who have no other kind of provision available” (Spicker, 2005, p. 347). Moreover, “social assistance is begrudging, closely monitored, and results in little distribution of social wealth” (Finkel, 2006, p. 6). At times, this approach can even foster a negative view of those who are a burden to the state and are unable to obtain assistance from other avenues and must rely on state welfare (Spicker, 2005). Institutionalism, in contrast, views social policy “as a set of actions that provide for basic human needs of all members of society, not just those on the margins” (Prince, 1996, p. 245). Moreover, “For institutionalists, public sector social programs are not like band-

aids responding to particular problems, but are meant to be active measures engaging with societal trends” (Prince, 1996, p. 245-246). Governments adhering more to this paradigm tend to spend more state money on welfare programs and exercise increased state intervention (Spicker, 2005). While Prince (1996) pointed out that historically social policy in Canada has elements of both, he claimed that the idea of “health and social services [being] the responsibility of local communities, charities, and municipalities was a stance held strongly by provincial governments and the federal government up through the 1930s” (p. 245). Likewise, Finkel (2006) agreed that there have been times in Canada’s history where residualism has driven social policy. Esping-Anderson (1990), on the other hand, placed Canada and the United States largely in the residualist camp throughout their histories.

There is a case to be made, then, that the approach to social policy by the BC and prairie governments was guided by residualist principles, which affected the care of the mentally ill in these provinces through the 1920s. In fact, Prince (1996) has argued that from BC’s entrance into Confederation until the 1940s, the government—whether Conservative or Liberal—took such an approach. The government primarily provided financial assistance, in the form of grants, to municipalities and other organizations, such as charities. As well, “the province passed legislation and enforced regulations pertaining to education, justice, and liquor, and supervised local authorities charged with public health responsibilities” (p. 249).

In regards to government intervention in mental health care in BC, which has scarcely been addressed in the literature, residualism can arguably be seen in the lack of financial support given to mental hospitals in the province. In fact, annual reports throughout the interwar years routinely lamented ongoing issues such as overcrowding and lack of accommodations for increasing numbers of patients and for particular populations such as mental defectives and

chronic cases (e.g., Crease, 1930, 1932b, 1937; Doherty, 1919, 1920; Steeves, 1923, 1925).

Given that annual reports were submitted each year to the BC government wherein superintendents made the needs of institutions known, the lack of construction—albeit often due to economic challenges—provided an indication that the government’s priorities were elsewhere. The failure of the government to respond was pointed out by the superintendent in the 1920 annual report:

On the account of the financial depression our building policy has of necessity been curtailed...The building programme of this Province has not kept pace with the influx of population...We have never yet been able to catch up with, much less keep abreast of, our own conditions. (Doherty, 1920, p. Y 7)

However, superintendents were not naïve as to why the government may not have been responding to their plight. They knew that the province was prioritizing finances over the care of the mentally ill. This was noted by C.E. Doherty (1919) in his annual report in 1918:

The burden upon the taxpayer of caring for the constantly increasing numbers of insane has occasionally given rise to a division of sentiment when the question of appropriations for their care has been under discussion, but I can assure you that those members of the Legislature who oppose a liberal and enlightened policy do so under a mistaken idea of economy. (p. V 7)

Still, in line with a residualist approach to social policy, mental hospitals in BC seemed to be left to their own devices despite repetitive requests for assistance to manage the task of treating a population that the province was supposed to care for. One can almost hear the exasperation in H.C. Steeves’s (1924) annual report as medical superintendent:

I wish to repeat my former recommendation that a definite programme of extension be laid down whereby additional accommodations for the housing of patients will be provided year by year, thus avoiding acute overcrowding which develops to the detriment of the patients and the serious handicapping of their treatment...I therefore respectfully submit that provision should be made to carry on the construction of the new Hospital at Essondale to keep pace with the growth of patient population, to properly house, treat, and care for the unfortunate mentally ill. (p. P 13)

Alas, not much had changed 13 years later when A.L. Crease, superintendent by that time, echoed the concerns of his predecessor: “The overcrowding of institutions is expensive, dangerous, delays recoveries, and greatly taxes the staff in the care of the patients...The institutions, now overcrowded, will not carry the extra load, and building will have to be instigated” (Crease, 1937, p. FF 11). Unfortunately, however, the Great Depression and, then, the Second World War would exacerbate matters whereby no building would occur between 1934 and 1946 (Gee, 1953). As Prince (1996) explained, it would not be until the 1940s that reforms in social policy would begin to gain momentum whereby the BC government would take on increasing responsibility for its citizens beyond the bare minimum.

The government in Saskatchewan also arguably demonstrated a residualist approach to dealing with their mental hospitals. Opened in 1921, the hospital in Weyburn was considered an achievement by prairie boosters and a mainstay of British identity and prairie ideals (Dyck & Deighton, 2017). Despite what the new institution may have stood for, it was not immune to policy decisions that hampered the work of the hospital. For instance, it was “Faced with a 10 percent budget reduction only four months after it opened” (Dyck & Deighton, 2017, p. 56). Even R.M. Mitchell, Weyburn’s first superintendent and a supporter of the provincial Liberal

government, lamented the staffing problems he faced on account of the financial restraint he was required to maintain (Dyck & Deighton, 2017). Like in BC, superintendents at North Battleford and Weyburn regularly requested further accommodations to manage increasing patient numbers (e.g., Campbell, 1934; MacNeill, 1926, 1930, 1931; Mitchell, 1925). Rather than step in before overcrowding became unmanageable, however, the government seemed not to heed the warning of J.W. MacNeill (1926) at North Battleford in 1926 when he stated that “the day is not far distant when further accommodation will need to be provided for the treatment of the mentally ill of this Northern half of the Province” (p. 69). He made similar comments again in 1928 and 1929 to no avail (MacNeill, 1928, 1929). Then, in 1930, as he predicted, the hospital had “become overcrowded and increased accommodation [was] an urgent necessity” (MacNeill, 1930, p. 59). The situation only worsened with the Great Depression in the 1930s. Surely frustrated by the lack of response, MacNeill (1932) emphatically addressed the problem yet again in his annual report in 1932 where he commented on the government’s failure to respond despite the dire situation that could have been prevented:

In my last year’s report I pointed out to you the urgent need of a new infirmary unit, a reception unit and a unit for the chronic women patients, and I would like to reiterate that urgent need. Our hospital is so over-crowded that our work is hindered and handicapped for lack of space...I trust that when conditions improve, the government will see fit to erect the buildings which are so necessary for the proper care and comfort of the patients in this hospital. (p. 48-49)

Nevertheless, a similar request was levelled yet again in 1937 (MacNeill, 1937a). Even as the population in the province continued to increase, leading also to a rise in the number of patients

who were institutionalized, the Saskatchewan government seemed to provide only the bare minimum and, otherwise, left the institutions to fend for themselves.

The financial decisions made by Saskatchewan's Liberal government in the 1920s—as well as the government's lack of interest in mental health reform even in the wake of the CNCMH survey (Dyck & Deighton, 2017)—demonstrated that those in power were preoccupied with other matters. According to Spencer (2007), the government was focused on keeping farmers on their side, managing tensions between Catholics and protestants in regards to public schools, dealing with anti-immigration sentiment, handling the threat posed by the Ku Klux Klan that had arisen in 1926, and, then, toward the end of the 1920s, forced to contend with the threat posed by the Conservatives. In the 1929 election, the Liberals were finally ousted in favour of a Conservative-Progressive coalition (Spencer, 2007). According to Dyck and Deighton (2017), the new government “promoted a more interventionist style of governance” and sought to align Saskatchewan with other provinces and countries by prioritizing mental hygiene (p. 16). However, the Great Depression constrained the coalition government's ability to make the changes they had hoped to before the Liberal government was re-elected in 1934 (Dyck & Deighton, 2017). The fact that the Liberals had been focused on other matters, imposed budget cuts on the mental hospitals in the 1920s, and sought to undo much of what the coalition government had achieved in terms of social policy in the early 1930s (Dyck & Deighton, 2017) supports the notion that the Saskatchewan government tended towards a residualist approach.

Of all of the prairie provinces, the government of Manitoba arguably maintained the most residualist approach in regard to mental hospitals. While some construction at the mental institutions in Brandon and Selkirk took place in the 1920s, this was only because Bracken's government was finishing what was started by the Liberals prior to the UFM being elected in

1922. However, these building projects were completed more slowly on account of funds not being allocated as expected during the mid-1920s in spite of economic recovery touted by the government (Kendle, 1979). Essentially, the money intended for these projects was simply invested elsewhere. The government's haphazard contributions to mental hospitals did not go unnoticed, however. In the 1930 annual report, the Provincial Psychiatrist, A.T. Mathers (1931), boldly called out the government's priorities:

Every year, with one exception, in the past ten has, shown an increase in the number of patients receiving care... [T]he steady increase indicates one thing, and that is that with increase in the size and complexity of the problem, there should be coincident increase in the means of dealing with it. As has been pointed out before, this would entail the formulation of a programme of annual capital appropriations, none of which would be necessarily large. Such a system would be infinitely preferable to the present system of capital expenditure in large amounts every so many years in a vain attempt to meet the demands for accommodation, the years between being characterized by constantly growing overcrowding of institutions. (p. 3)

The situation, however, would not improve prior to the Great Depression and Bracken's government—a Liberal-Progressive coalition after 1932—continued to maintain strict fiscal policies. Highlighting the residualist agenda under Bracken, Kurbegovic (2019) explained that “The main focus of the coalition during the early 1930s was to combat the province's financial problems and provide unemployment relief. The administration drastically reduced expenditures, and attempted to only leave essential services untouched” (p. 10). Early in 1939, before the outbreak of the Second World War, the situation remained largely the same within the province's mental institutions. Mathers (1939c), again in his report as Provincial Psychiatrist, stated the

following in an almost resigned tone: “The outstanding [recommendation] *as usual* is for increased accommodation—at Portage la Prairie for male patients, at Selkirk for female patients, and at Brandon to relieve congestion on ‘chronic’ wards” (p. 85-86, italics added). Economic downturn, or not, the government in Manitoba took what appears to be a strong residualist approach whereby mental hospitals were left in a perpetual state of struggle.

In contrast to the other western provinces, Alberta’s mentally ill and defective populations seemed to fair slightly better during the 1920s on account of some government intervention. For instance, the UFA took an active approach to addressing mental hygiene in the wake of the CNCMH survey by supporting the development of a policy concerning sterilization (Kurbegovic, 2019). Yet, an undercurrent of economic savings—and thus residualist motivations—can be detected in some of the rationale provided. In 1923, for example, the Minister of Health commented in the Legislature that the alternative to sterilization—that is, incarceration in a mental hospital—would be expensive (Kurbegovic, 2019). As such, the Alberta Sterilization Act of 1928 can be seen as a residualist social policy in that it was an attempt, at least in part, to reduce government expenditures on this population and, ultimately, prevent government intervention needed in the long-term should the mentally defective population have been free to reproduce. Similarly, economic concerns drove decisions pertaining to mental hospitals during the 1920s. For example, when it was decided in 1923 that the new Provincial Mental Institute in Oliver would house chronic patients—instead of mental defectives as had been the original plan—the hope was that the decision would delay demands for further accommodations. “It is expected,” wrote W.C. Laidlaw (1924), the Deputy Minister of Health, “that this re-distribution of mental cases will obviate the necessity of building further accommodation at Ponoka or Oliver until 1926” (p. 5). Taking a reactive rather than proactive

approach, construction on a pavilion at Ponoka that could accommodate 55 was started in 1927 (Cooke, 1929). However, overcrowding accompanied by requests for additional accommodations was already noted in the 1925, 1926, and 1927 annual reports (Laidlaw, 1926; Cook[e], 1927; Cooke, 1929). Even with the new pavilion building set to open in 1928 for male patients, “it [would] not solve the problem of further accommodation for the females without utilizing space already occupied by male patients” (Cooke, 1929, p. 40). At the same time, the Alberta government does appear to have been marginally more responsive than other western provinces in the late 1920s. In the 1930 annual report, for instance, it was reported that additional accommodations had been provided at the institutions (Baragar, 1931b).

The Great Depression, however, would require that Alberta take a stronger residualist stance to weather the storm. For instance, the Psychopathic Ward at the University Hospital in Edmonton was forced to close its doors just over two years after opening “Owing to the necessity of further reducing expenditures” (Bow, 1935, p. 18). As overcrowding became increasingly problematic in the province’s institutions throughout the 1930s (e.g., Bow, 1935; Bow, 1938; R.R. MacLean, 1939b), the loss of the psychopathic ward as a preventative strategy for reducing admissions to Ponoka and Oliver was regularly mourned in annual reports (e.g., Baragar, 1936b). Overcrowding had become so problematic, especially with the absence of wards in general hospitals, that Ponoka was required to be increasingly selective about the cases it was able to admit, leaving some Albertans who may have needed care without any (e.g., R.R. MacLean, 1939a). While Alberta may have provided more resources to build accommodations in the late 1920s than in other provinces, an air of residualism still pervaded those decisions. And the precarious situation brought on by the Great Depression forced the government to further retract

their support with mental hospitals who were struggling to manage by the eve of the Second World War.

Conclusion

As has been shown, mental hospitals received minimal assistance from their respective provincial governments, despite modest improvement in grain prices and economic recovery following the First World War. However, “The stock market crash of October 1929 in which share prices fell by 30 percent over a few months was...a spectacular and shocking setback to the public faith in continuing prosperity” (Bryce, 1986, p. 40). The Great Depression that followed—a period from 1929 to 1937 typically known as the ‘Dirty Thirties’ (McManus, 2011)—intensified an already troubling situation in mental hospitals when provincial governments found themselves preoccupied with a range of issues including managing high rates of unemployment (Prince, 1996), dealing with the impacts of crop decimation on the prairies on account of drought (Marchildon, 2009), and the movement of thousands of citizens from rural to urban centres due to hard times on the prairies (Owram, 2007). As Finkel (2006) explained in his book on social policy in Canada: “State policies that limited social spending mainly to residual social assistance in the 1920s contributed to the onset of the Great Depression of the 1930s” (p. 108). Consequently, the lack of financial support given to mental hospitals by provincial governments only intensified issues of overcrowding, lack of accommodations, and the struggle to contain and treat infectious diseases that existed prior to the Great Depression. As will be described in more detail in the next chapter, these issues, along with others including understaffing, would only intensify during the Second World War. Surveying the strained state of affairs in Canadian mental hospitals a decade later, Le Bourdais (1947d) remained convinced that governments were largely responsible for the condition of mental health care in the

province. He was optimistic that adequate provision of resources to mental hospitals by provincial governments would drastically change the situation. If this were to happen, he contended, “it can be said with confidence that within twenty-five years the great mental hospitals, with their thousands of inmates, can be done away with” (p. 46).

Chapter 2

No Longer “the Cinderella of Medicine”: Psychiatric Identity and the Introduction of Somatic Therapies in the 1930s

In his 1940 annual report, A.T. Mathers (1941)—Manitoba’s Provincial Psychiatrist—summarized the work of the Division of Psychiatry for the preceding year. Amidst his survey of aggregated patient population data and a brief overview of the work of the province’s institutions, Mathers penned the following statement: “Psychiatry has gone a long way to establishing itself, not as the Cinderella of Medicine, but as an accepted member of the medical family. Any step that furthers this highly desirable objective, will redound to the benefit of all” (p. 150). While such a statement may, at first glance, seem relatively innocuous, or even out of place in an annual report, it served an important rhetorical function. Mathers’ comment, which can be read as an explicit defense of the psychiatric enterprise, reveals both historical insecurities of a profession attempting to prove its legitimacy and a justification for an emerging “culture of experimentation” amidst troubling hospital conditions (Dyck & Deighton, p. 130).

Mathers’ (1941) defense of psychiatry was rooted in a long and complicated history that has been articulated in careful detail elsewhere (e.g., Grob, 1994; Shorter, 1997). Central to this history was the asylum and the role of those who cared for patients within its walls. In his history of American medicine, Paul Starr (1982) suggested that “The mental asylum created not only a new institutional market for doctors, but also a new sphere in which they could exercise authority” (Starr, 1982, p. 72). Psychiatrists overseeing these institutions—originally called alienists—demonstrated their control over their dominion in the 19th century most notably

through moral treatment discussed briefly in the previous chapter.¹⁶ However, moral treatment became increasingly difficult to deploy as alienists were forced to face the sheer chronicity of mental illness coupled with burgeoning patient populations that overshadowed initial beliefs “that mental disorders, if identified early and treated promptly, were curable” (Grob, 1994, p. 103). Eventually, “mental hospitals shifted from therapeutic to custodial functions [and] psychiatry became primarily an administrative rather than a medical specialty” (Starr, 1982, p. 73). This became an unwanted legacy that haunted the field of psychiatry well into the 20th century.

Not surprisingly, psychiatrists in western Canada were not immune to, and had to actively combat, such perceptions like their counterparts in the United States and Europe. One example can be found in an annual report written by British Columbia’s H.C. Steeves (1924):

As Mental Hospitals are too frequently looked upon by the uninformed as places for custodial care, and one frequently hears the assertion that nothing is being done for the patient, I will go into some detail as to the results of treatment during the year... (p. P 10)

It is clear that both Steeves and Mathers were acutely aware that in order to convince others that their specialty was a legitimate medical sub-field, psychiatrists needed to demonstrate that they were capable of actively and effectively treating mental illness (Braslow, 1997).

Not only were psychiatrists in western Canada, as elsewhere, waging a professional battle, they were also contending with the constraints brought about by social, political, and institutional circumstances that had compounded over the preceding decades. As elucidated in

¹⁶ For detailed histories pertaining to the history of asylums and moral treatment, see the work of scholars such as Jennifer Bazar (2013), Andrew Scull (1989), Anne Digby (1985), Ian Dowbiggin (1997), David Rothman (1971), and Nancy Tomes (1994).

the previous chapter, many of these factors—including overcrowding, conservative social welfare spending, and the impact of the First World War and Great Depression—fostered conditions that left hospital physicians and administrators desperate for solutions. Such desperation collided with the nihilism that had long plagued the discipline of psychiatry (Pressman, 1998; Raz, 2013). It is in this space that four somatic therapies—of which psychosurgery was one—would become attractive treatment options for a discipline eager for professional recognition and in the absence of concerted efforts from provincial governments to meet the needs of the institutionalized mentally ill.

Although other scholars have previously identified these lines of argumentation (e.g., Grob, 1994; Shorter, 1997; Braslow, 1997; Pressman, 1998; Dyck & Deighton, 2017), Dyck and Deighton (1997) are among the few who have pursued them within the western Canadian context in their monograph detailing the history of the mental hospital in Weyburn, Saskatchewan. Yet, they provided limited details about the somatic therapies that were actually used at Weyburn. Thus, this chapter is intended to further their work beyond Weyburn to the broader western Canadian context. Herein, I argue that the somatic therapies were readily taken up by physicians in most mental hospitals in the west based on their allure as being a “step that furthers this highly desirable objective” as Mathers (1941) suggested (p. 150). This chapter, then, recounts the arrival of the four somatic therapies in each of the western provinces. To accomplish this task, I begin by describing what Dyck and Deighton (2017) called the “culture of experimentation” and the treatments that pre-dated the introduction of the somatic therapies of the 1930s (p. 130). Then, I discuss the arrival of insulin shock therapy and Metrazol shock therapy in the latter half of the 1930s when the provinces were still reeling from the Great Depression. Next, I explore the additional constraints and challenges posed by the Second World War and the commencement of

electroshock therapy during that time. Finally, I detail the adoption of psychosurgery during and after the Second World War across the western provinces.

“A Culture of Experimentation”: Treatment Prior to the 1930s

Although the therapeutic aspirations of psychiatrists had dwindled heading into the first decades of the 20th century, the introduction of malarial therapy—described in Chapter 1—revitalized “hopes that other physiologically oriented cures for psychiatric conditions were within reach” (Pressman, 1998, p. 157).¹⁷ Yet, a physical understanding of mental illness did not begin with malarial therapy; instead, Shorter (1997) has argued that a biological understanding of mental illness had long been present in the discipline and had merely waxed and waned throughout its history. A notable phase in this history occurred, according to Braslow (1997), “With the decline of moral therapy in the second half of the nineteenth century and the rise of a more somatically based model of psychiatric disorder” (p. 34). This resulted in “the patient’s body rather than his or her mind or environment bec[oming] an increasingly important site of therapeutic intervention” (Braslow, 1997, p. 34). Accordingly, there were other physical treatments in existence prior to the introduction of malarial therapy including “numerous drugs with which to calm and sedate patients” such as bromides and paraldehyde (Braslow, 1997, p. 36). By the 1920s, North American and European psychiatrists had experimented with a host of other existing and emerging physical treatments including laxatives, tooth extraction, colectomies, and barbiturate sleep therapy (Shorter & Healy, 2007).¹⁸ Physical restraint and

¹⁷ For more on malarial therapy and its connection to biological psychiatry, see Chapter 1 as well as other histories produced by Braslow (1997) and Shorter (1997). For a critical history of malarial therapy, see Warren (2000).

¹⁸ See Andrew Scull’s (1987) coverage of focal infection theory and the tooth extraction work carried out by Henry Cotton. For information on the use of more invasive operative techniques, see Wendy

hydrotherapy had also been used for some time as therapeutic agents, though Braslow (1997) has argued that such practices skirted the line between treatment and discipline.

The attitude of psychiatrists towards these varied treatments and the necessity of attempting them was captured well in a letter written by A.D. Campbell (1937a), the superintendent at Weyburn, in March of 1937. In his response to a request originating in Latvia regarding information on the treatments in use in Canada, Campbell explained:

I think we are all anxious to adopt any scientific treatment that would be of any assistance to us in sending these people out into the world again and I think it can be taken for granted that in any up-to-date institution no line of treatment is neglected that has been demonstrated by experience as a successful line of treatment... (p. 1-2)

Thus, the many therapies experimented with into the 1930s demonstrated the intersection between effective treatments capable of reducing patient overpopulation and psychiatry's ambition to project itself as an authentic medical specialty. And, as Campbell articulated, any treatment with possibility would be explored.

Signifying these ongoing and varied attempts to actively treat patients rather than simply house them, a host of experimental practices appeared in annual reports from western Canadian mental hospitals—typically under the heading of clinical work, medical work, or treatment. These attempts included those already mentioned above and in the previous chapter, such as hydrotherapy (e.g., Crease, 1937; G.A. Davidson, 1935; Mitchell, 1926), occupational therapy (e.g., Cooke, 1926; Mathers, 1931; Mitchell, 1925; Steeves, 1926), malarial therapy (e.g., Cooke,

Mitchinson's (1982) work on the use of gynecological operations on women in Ontario and Richard Noll's (2011) account of Bayard Taylor Holmes's attempt to treat his son's dementia praecox via surgical intervention of the digestive system. Noll (2007) also previously discussed Kraepelin's organotherapy, autointoxication theory, and the surgical procedures taken up in America in the early 20th century.

1926; Crease, 1932a), and sterilization (e.g., MacEachran, 1935), as well as others like electrotherapy (e.g., Mitchell, 1925). Even auxiliary or consulting services, such as X-Rays (e.g., Crease, 1936b; G.A. Davidson, 1935; Mitchell, 1925; Pincock, 1935), laboratory and pathology services (e.g., Baragar, 1931a; Crease, 1932b), social service departments (e.g., Baragar, 1931a; Crease, 1932b), and the services offered by dentists (e.g., Baragar, 1931a) seem to have constituted part of a holistic approach to treating mental and physical illness. At Weyburn, for instance, the superintendent reported on the work of the X-Ray department in 1925 saying that the “work is of great assistance to the doctors in diagnosis, and we are now using the machine in treatments, we are getting some remarkable results” (Mitchell, 1925, p. 92). Ultimately, the notion that psychiatrists, like other medical practitioners, could prescribe a host of treatments—physical and otherwise—bolstered their enterprise.

Psychiatrists were further encouraged by the emergence of four new and bold somatic therapies in the 1930s—insulin shock therapy, Metrazol shock therapy, electroshock therapy, and psychosurgery (Bellak, 1948; Valenstein, 1986; Grob, 1994).¹⁹ The first three, collectively known as the shock therapies, induced a state of physiological shock and/or convulsions in the body by administering a pharmaceutical agent or applying electrical current (Braslow, 1997; Shorter & Healy, 2007). According to Braslow (1999b), “Insulin differed the most from the other two treatments in that it actually produced a state of physiologic shock but no seizures, while Metrazol and electricity produced grand mal seizures or convulsions but no physiologic shock”

¹⁹ It is worth noting that these four somatic therapies were not the only ones experimented with during the 1930s despite the fact that they have been the most commonly referenced in both the primary and secondary literature. Other substances were attempted as forms of shock treatment including ammonium chloride, coramine, and triazol (Stainbrook, 1946; Bellak, 1948). Electronarcosis, nitrogen inhalation, and intravenous injections of the neurotransmitter acetylcholine were also employed for a time (Bellak, 1948).

(p. 234). “With the arrival of the shock therapies,” explained historian Jack Pressman (1998), “a profession that had been known for its ‘nihilism’ became giddily engaged in developing an extensive array of specialized treatments” (p. 157). In the case of psychosurgery, an especially targeted, neurosurgical approach to the treatment of mental illness was employed. All four, however, would become integral to treating patients in western Canada to greater and lesser degrees.

Insulin Shock Therapy

After its discovery in the early 1920s, insulin was used to treat diabetes but also experimented with in other contexts and with other ailments (Shorter & Healy, 2007). Shorter and Healy (2007) explained that “In psychiatric clinics it was mainly given to undernourished patients to encourage appetite” (p. 11). Inducing hypoglycemic shock by administering insulin in cases of schizophrenia and psychosis was also experimented with in the late 1920s and early 1930s in various European countries (Shorter & Healy, 2007). However, Viennese psychiatrist, Manfred Sakel, was credited with introducing insulin shock therapy for the treatment of schizophrenia (e.g., Easton, 1938).²⁰ In 1927, Sakel had been using insulin to treat cases of

²⁰ There were some minor variations in the names used for some of these treatments. While both “insulin coma” and “insulin shock” therapy have been used interchangeably in the literature (e.g., Valenstein, 1986; Braslow, 1997; Shorter, 1997), Sakel (1936) initially used the term “insulin shock treatment” (p. 835; Braslow, 1997). This is also the term that tended to be used in British Columbia (e.g., Crease, 1938), Saskatchewan (e.g., Campbell, 1939), and Manitoba (e.g., Barnes, 1938). In Alberta, however, “insulin therapy” was the more common term used in annual reports (e.g., R.R. MacLean, 1939a, p. 91), though in retrospect was often referred to as “insulin coma therapy” (e.g., “Historical notes – A.H.P.,” n.d.). Alternative terminology used within the global psychiatric community included “hypoglycemic shock” (e.g., Beiglböck & Dussik, 1938) and “insulin-hypoglycemia treatment” (e.g., Cameron & Hoskins, 1937).

opiate addiction; however, one of his patients also had schizophrenia, which seemed to improve after going into an insulin shock. It was this experience that led Sakel “to treat schizophrenics simply because he felt they were otherwise hopeless” (Shorter & Healy, 2007, p. 15). Over the course of the next five years, Sakel applied this method on 150 cases and first published his results in 1933 (Easton, 1938), inaugurating a new era of somatic therapy in psychiatric medicine.

In the January 1936 edition of the *American Journal of Psychiatry*, Sakel (1936) published an account of insulin shock as a treatment for schizophrenia. Along with briefly describing how he discovered the treatment, he outlined the treatment process:

It consists essentially of the production of consecutive daily shocks with very high doses of insulin; these occasionally provoke epileptic seizures, but more frequently produce somnolence or coma, accompanied by profuse perspiration—in any case a clinical picture which would ordinarily be alarming. The patient may show sudden improvement after the first shock, but more often there is a gradual improvement after a series of shocks. (p. 830)

Sakel (1936) also admitted the possible danger inherent in this type of treatment, though he maintained that properly trained personnel and preparedness to quickly administer an injection of glucose mitigated the risk. He then provided a detailed case description of an aggressive and violent patient admitted to his clinic in August of 1934 who underwent the treatment and, by September of 1936, was reportedly back working as a physician.

Even before Sakel published his 1936 article, the treatment had already caught the attention of physicians elsewhere in Europe and in North America. According to Kolb and Vogel’s (1942) survey of 305 hospitals—including state, federal, city, county, and private

institutions—insulin shock therapy began in the United States in 1935. In recounting their use of the treatment beginning in March of 1936 at Worcester State Hospital in Massachusetts, Cameron and Hoskins (1937) explained that Sakel “claimed exceptionally high recovery rates” when he introduced his treatment in 1933 (p. 1246). Other work conducted in Switzerland, Hungary, and Czechoslovakia, however, had also reportedly supported Sakel’s claims. It should not be surprising, then, that Canadian psychiatrists would follow fairly quickly in the footsteps of their US counterparts given that high chances for recovery would have been attractive to physicians eager to manage ballooning patient populations and remediate their professional reputation.

In eastern Canada, it is not entirely clear when and where insulin shock was first introduced. In Ontario, a review of the annual reports suggested that Ontario Hospital, New Toronto was the first to launch the treatment in the province on May 31, 1937 (Collins, 2012). However, in his annual report up to October 31, 1936, E.C. Menzies (1937b), the superintendent at The Provincial Hospital in Saint John, New Brunswick, provided some indication that they were beginning to experiment with a new treatment likely to be insulin shock; though, it is not clear whether it was experimented with prior to the end of 1936 or early into 1937 when the report was written. According to investigative journalist, D.M. Le Bourdais (1947d), the treatment had been used in Nova Scotia beginning in 1937. In the case of Quebec, Perreault (2012) mentioned that insulin shock had been used on patients at Montreal’s Saint-Jean-de-Dieu psychiatric hospital; however, a definite date for the commencement of the treatment was not provided. In O’Brien’s (1989) history of the Waterford Hospital in Newfoundland, it was confirmed that insulin shock was used at the hospital, but no indication was provided for when the treatment began. Thus, without more definitive historical evidence, it is difficult to assess

which eastern province was the first to employ the new therapy. However, it is possible to trace the beginning of insulin shock in western Canada.

While Alberta had been the first to introduce malarial therapy in western Canada (see Chapter 1), Manitoba was the first to employ insulin shock. According to E.C. Barnes (1939b), the superintendent at Selkirk, the first patients were treated in November of 1936. It would take almost another year, however, for the mental hospital in Brandon to begin using the treatment the following October (Pincock, 1940). Physicians at the Winnipeg Psychopathic Hospital claimed that “Conditions at this hospital [were] not very favorable for Insulin Therapy,” and instead implemented Metrazol shock therapy (Mathers, 1939d, p. 90). Consequently, pending more information from eastern Canada, Manitoba may, in fact, have been the first province in Canada to begin using insulin in the treatment of mental disease.

From the beginning, the efficacy of insulin shock was assessed with cautious optimism by physicians in Manitoba. In the annual report where the treatment was first mentioned, Barnes (1938) summarized their foray into using this new somatic therapy in this way:

Though some gratifying and encouraging results have been secured, it is felt that it is all too early to offer any definite conclusion as to the value of this method... Results justify a continuance of our investigation of the method and the claims for it advanced by its sponsors. (p. 68)

The promise of this treatment clearly must have outweighed the added burden it placed on Manitoba’s mental hospitals given Premier Bracken’s residualist political agenda discussed in the previous chapter. The Provincial Psychiatrist did indeed comment in the 1938 annual report that the treatment was costly in terms of staff requirements and acquiring adequate supplies. He also indicated that the treatment came with risks, evident in two deaths during the fiscal year that

were attributed to it (Mathers, 1939c). Yet, professional legitimacy was at stake, and pressure to relieve overcrowding through patient discharge or through lessening the burden of chronic cases was a key measure of success. “The results,” explained the Provincial Psychiatrist, “continue to be sufficiently encouraging to warrant continuance. Recovery rates have been bettered and average stay in hospital distinctly lessened. The gain, from a variety of standpoints, requires no argument” (Mathers, 1940, p. 32).

Saskatchewan was the next western province to commence insulin shock treatment. At the hospital in North Battleford, the first series—consisting of eight patients evenly divided between the sexes—was treated in April of 1937 (Davison, 1938). According to the superintendent, J.W. MacNeill (1939), they did so “following the practices outlined by Sakel” and, although they attempted to reserve judgment as to the treatment’s success, they felt “encouraged with some of [their] cases where the prognosis was not encouraging” (p. 77). Meanwhile at Weyburn, a physician on staff had been corresponding with E.C. Menzies in Saint John regarding obtaining case reports from their experiences in New Brunswick. In a letter dated April 7, 1937, Menzies (1937a) indicated that “Our results so far fully justify the time and trouble that we took in introducing these treatments. We will send along a case report in a day or so” (para. 3). A reply followed several weeks later when Menzies was sent a letter thanking him for providing “very full case reports...on Hypoglycaemic Shock Treatment” (Assistant Superintendent, 1937, para. 1). Although it is not clear exactly which month the treatment was first attempted at Weyburn, Campbell’s (1939) annual report indicated that it began during the 1937 fiscal year (ending April 30, 1938), though treatment had been “confined to the male side of the institution and included a number of patients treated at the urgent request of relatives, some of these people having been inmates of the institution for quite a number of years” (p. 85).

On the west coast, insulin shock treatment was piloted at BC's Essondale hospital in June of 1937, a few months after it was first used at North Battleford (Hamilton, ca. 1938; Crease, 1938). In his annual report to the Provincial Secretary, A.L. Crease (1938) credited the commencement of the treatment to an established practice of "sending the doctors away for postgraduate study" (p. V 10). Specifically, "a member of the staff [had] been sent to a distant point to learn the technique" (Hamilton, ca. 1938, p. 23). By the end of the year, it was reported that "a special ward [had been] set aside for this purpose in which twenty patients [were] given the insulin shock treatment and, on completion of their treatment, twenty more [took] their places" (Crease, 1938, p. V 10). Crease (1938) recounted that the results were "encouraging," but more time was needed to make any particular conclusions (p. V 10).

Finally, in the case of Alberta, the treatment was initially begun at Ponoka "early in the summer" of 1937 before "it had to be discontinued due to the presence of the epidemic of acute entero-colitis in the hospital" (R.R. MacLean, 1939a, p. 90). Before the end of the year, they began offering the treatment yet again. Despite the challenge of pursuing this new form of therapy on account of understaffing (R.R. MacLean, 1939a), a dedicated unit for insulin treatment was opened according to a hospital history written by retired staff (Johnson et al., 1986). The initial series of patients treated were composed of 20 cases diagnosed with schizophrenia who were selected from the wards housing chronic patients. This is how the superintendent, R.R. MacLean (1939a), communicated their preliminary findings:

Results, on the whole, were not considered particularly good, but this was attributed to the fact that unsuitable cases were used. It is expected that better results will be obtained as time goes on and the more hopeful cases are given the treatment. (p. 90)

The following year, however, R.R. MacLean (1939b) remained hesitant to conclude that the results were much better on the next 18 patients, despite the fact that more suitable cases had apparently been selected. Yet, by 1939, he claimed that the results were “encouraging” especially “in the early cases” (R.R. MacLean, 1941b, p. 110). In regard to the Provincial Mental Institute in Edmonton, it is not entirely clear if, and when, insulin shock was adopted; however, the superintendent, W.J. McAlister (1939b), first reported in 1938 on “the use of ‘shock’ therapy in a series of cases,” which could have referred to insulin, Metrazol, or both (p. 114). Given that McAlister (1939a) regularly urged the management of the Mental Health Division to transform the hospital from “a custodial institution...with little or no facilities for active therapeutic work” to an active treatment centre alongside Ponoka (p. 115), it is likely that it was Metrazol rather than insulin shock that was commenced that year, as the former was easier and safer to administer than the latter (Shorter & Healy, 2007).

While certain psychiatrists in western Canada were more cautious than others about the prospect of insulin shock, there was evidence that it offered hope for alleviating the overcrowded conditions and providing a previously stagnant discipline something active they could do to treat mental disease. To this point, the following observation regarding the potential of insulin (and Metrazol) shock therapy at Brandon was made by a physician on staff:

The work was commenced in an atmosphere of fresh enthusiasm and optimistic hope and we feel that no better recommendation can be offered for the success of the venture than to say that this enthusiasm and optimism has been obtained at a high level. (Pincock, 1941, p. 159)

The value of the shock therapies in bolstering the profession of psychiatry was shared by others outside of Canada as well. Vaczy Kragh (2010), in his history of insulin and Cardiazol treatment

in Denmark, observed that “shock therapy also played an important role for psychiatrists trying to enhance the status of psychiatry and increase the funding for mental hospitals” (p. 343). It is not surprising, then, that physicians in western Canada were eager to incorporate these treatments for the hope they offered to patients, institutions, and the profession more broadly.

Metrazol Shock Therapy

The second of the well-known somatic therapies of the 1930s was first introduced to the medical community not long after Sakel published his initial results with insulin shock. Working independently of Sakel, Ladislaus von Meduna, a hungarian neuropathologist, had been pursuing the hypothesis that “epilepsy and schizophrenia antagonized each other” in his research in the late 1920s (Shorter & Healy, 2007, p. 25). The rarity of epilepsy among those diagnosed with schizophrenia supported his assertion (Shorter & Healy, 2007). This eventually led Meduna to attempt to bring about convulsions in patients with schizophrenia in 1934 via intramuscular injection of a natural substance called camphor (Bellak, 1948; Braslow, 1999b; Shorter & Healy, 2007). He then moved on to “a synthetic soluble camphor preparation known chemically as pentamethylenetetrazol... known in the United States as Metrazol and in Europe usually as cardiazol...” (Bellak, 1948, p. 251). Initially used to treat schizophrenia, this form of shock therapy was soon prescribed for other mental disorders (e.g., Cheney, Hamilton, & Heaver, 1941). As Braslow (1999b) explained, Metrazol shock was more appealing to physicians than Sakel’s insulin shock because “...an individual Metrazol treatment was easier to administer, required less observation, took much less time, and produced fewer complications” (p. 235). This was not the case for patients, however, who were “subject[ed] to a period of extreme anxiety”

while waiting for convulsions to begin after injection (Cummins, 1940, p. 43).²¹ Still, the number of treatments required, and the mortality rate, were reduced with Metrazol shock as opposed to insulin shock (Shorter & Healy, 2007).

Like in the case of insulin, Metrazol shock therapy was soon of interest to psychiatrists around the globe. Accordingly, physicians in the United Kingdom initially employed the treatment in 1935 (McCrae, 2006) and it first made an appearance in the US the following year (Kolb & Vogel, 1942). According to Kolb and Vogel (1942), it took roughly a year after the arrival of insulin shock in 1935 and Metrazol in 1936 for both to be “taken up with considerable enthusiasm” in America (p. 91). In 1937, physicians first used Cardiazol to treat patients in Denmark (Vaczy Kragh, 2010). In Canada, Ontario first employed Metrazol shock in a handful of Ontario Hospitals during the fiscal year ending March 31, 1939 (Collins, 2012). The commencement of the treatment at Ontario Hospital, Hamilton in September of 1938 appears to be the earliest confirmed date at this point in the literature (Cummins, 1940). The treatment was also used—though start dates are unknown—in Quebec at the Saint-Jean-de-Dieu hospital in Montreal (“The treatment,” 1944, p. 6; Perreault, 2012) and in Newfoundland at the Waterford Hospital (O’Brien, 1989). Otherwise, there has been little research into the use of Metrazol in eastern Canada.

In western Canada, the picture is not quite as clear as it was in the case of insulin shock therapy.²² Still, evidence suggests that at least three of the four western provinces began using Metrazol in 1937—specifically, BC, Saskatchewan, and Manitoba. In late August and early

²¹ This would be the reason given in 1941 and 1942 when treatment using Metrazol in BC was decreased on account of patients strongly disliking the treatment (see Crease, 1942, p. Y 10).

²² This may be in part on account of insulin being given more attention in the various provinces and Metrazol, at times, being considered an adjunct to it (e.g., Pincock, 1939b, p. 93).

September of 1937, A.D. Campbell, superintendent at Weyburn, solicited information from two hospitals in the United States regarding their use of this new somatic treatment. Having learned via the press about the use of camphor at Buffalo City Hospital in New York, Campbell (1937b) wrote to request “some further particulars if the physician in charge of this work feels that he has progressed far enough to do so” (para. 2). Less than a month later, Campbell (1937c) also sent a letter to a physician at the Psychiatric Research Institute in Chicago asking for “details of some of your cases or any monograph that you may have written on the subject” (para. 1). While the 1937 annual report for the hospital at Weyburn indicated that Metrazol was used during the fiscal year ending April 30, 1938, it is not clear how soon after the aforementioned correspondence that the treatment actually began at the institution (Campbell, 1939). However, at North Battleford, “Camphor-in-Oil” was first used on November 15, 1937 and, then, Metrazol on December 3 of the same year (MacNeill, ca. 1938, para. 1).

In September of 1937—the same month Campbell sent his letter of inquiry to Chicago—Dr. Elliot implemented Metrazol shock therapy at BC’s Essondale Hospital (Hamilton, ca. 1938; Crease, 1938). Initially, “a special dormitory in the Acute Building [was] set aside for these therapies” (Hamilton, ca. 1938, p. 23); however, increased demand led to the treatment “being carried out in each of the buildings” (Crease, 1938, p. V10). Based on available evidence, British Columbia may very well have been the first of the western provinces to actually implement Metrazol shock therapy.

In Manitoba, the superintendents at Selkirk and Brandon—Barnes (1939a) and Pincock (1939a), respectively—reported that Metrazol had indeed been used at both institutions during the eight-month period from May 1 to December 31, 1937. Although it is unclear exactly when the treatment was commenced at Selkirk, it is likely that both Metrazol and insulin were first

used at Brandon on October 14, 1937 (Pincock, 1940). In his first report detailing the use of Metrazol, Pincock (1939a) reported that “Many cases have been treated by Metrazol both in the chronic and acute reception services. At present there rests much doubt as to its value in long standing cases, but here again the early cases appear to derive some benefit” (p. 31). Physicians at Selkirk, however, seemed less optimistic with their initial findings:

The results so far obtained have been, in the main, disappointing, especially when compared with those of other reporting hospitals. This may be accounted for by the fact that patients treated by this method have been those who failed to show any response to Insulin ‘Shock’ or cases of such duration that it was thought useless to use Insulin. It may well be that selected recent cases would show better results. (Barnes, 1939a, p. 36)

In contrast, the director of the Winnipeg Psychopathic Hospital, where Metrazol had been introduced in 1938 in lieu of insulin shock, reported that “treatment by Metrazol has been carried out in a considerable number of cases, with promising results” (Mathers, 1939d, p. 90).

In 1938, Alberta became the last western province to adopt Metrazol shock therapy (Blair, 1973; Johnson et al., 1986; R.R. MacLean, 1939b). That year, 12 patients—eight males and four females—were treated at Provincial Mental Hospital, Ponoka (R.R. MacLean, 1939b). According to R.R. MacLean (1939b), “all patients showed some improvement during treatment” (p. 94). As mentioned above in regards to insulin shock, the 1938 report from the Provincial Mental Institute in Edmonton indicated that “the use of ‘shock’ therapy in a series of cases” had begun, but it was not clear which treatment was being referred to (McAlister, 1939b).

Like in the case of insulin shock therapy, the reasonably rapid adoption of Metrazol in the treatment of mental disease demonstrated its appeal to psychiatrists. By the end of 1941,

Manitoba's T.A. Pincock (1942a), amidst the mounting strain of wartime, resolutely affirmed the place of both treatments and the importance of offering them:

The value of these forms of therapy is, in our opinion, so great that they must be considered as essential services to be discontinued only when medical and nursing staff is reduced to the point where adequate safeguards cannot be maintained in their administration. (p. 137)

Metrazol, however, would be abandoned in the provinces much sooner than insulin shock. In most cases, another convulsive treatment—electroshock therapy—would largely take the place of Metrazol midway through the Second World War (e.g., R.R. MacLean, 1945; Pincock, 1942a). In his historical account of BC's Mental Health Services, Foulkes (1961) stated that electroshock therapy “replaced the dangerous and much hated metrazol” (p. 10). Even though Metrazol was eventually superseded, it surely met the needs of the profession over the years it was in use across western Canada.

The Second World War and The Introduction of Electroshock Therapy

The German invasion of Poland on September 1, 1939 marked the beginning of the Second World War. By September 10, Canada's Parliament had voted to join the war alongside Britain and France despite being “ill prepared” (Bryce, 2005, p. 12). This was because “[a] decade of depression had taken its toll on the Canadian economy” and the federal Liberal party, which had been in power since the mid-1930s, had attempted to save funds by “cut[ting] military expenditures drastically” (Bryce, 2005, p. 12). As had been the case during the First World War, the impact of wartime soon reached mental institutions where personnel were needed on the front lines. Maintaining a basic level of care during marked staff shortages, and in the midst of continued overcrowding, was especially challenging for hospital administrators. As a result,

sustaining the use of promising treatments like insulin and Metrazol became problematic. Moreover, the collective task of promoting the psychiatric enterprise was overshadowed for a time by the reality facing the country. Yet, perhaps surprisingly, a third somatic treatment would still manage to make its debut in the latter years of the war.

The Impact of Overcrowding and Understaffing on Patient Care

As discussed in Chapter 1, most mental hospitals in western Canada—as elsewhere—had been contending with perennial overcrowding and superintendents had regularly been requesting government assistance since early in the interwar years. Canada’s entrance into the Second World War, however, only aggravated an already precarious situation. Manitoba’s Deputy Minister of Health and Public Welfare reported that “The over-crowding which was apparent before the [Second World] War has become much greater in all Institutions” (Jackson, 1944, p. 11). He went on to explain that the situation had worsened due to the lack of any attempts during the war to increase accommodations (Jackson, 1944). Likewise, in BC, “Due to economic depression and war no new construction was undertaken during the twelve-year period from 1934 to 1946” (Gee, 1953, p. T 17). Even in provinces where new facilities were erected during this time, the relief offered was minimal. This reality was articulated in the annual report of Alberta’s Mental Health Division in 1939: “Notwithstanding new accommodation for 250 male patients at Oliver in 1938 and the new Auxiliary Hospital this year for 125 female patients, there is still serious congestion at both the Provincial Mental Hospital and the Provincial Training School” (“Mental health division,” 1941, p. 95).²³ Regardless of whether building had occurred

²³ The institution at Oliver referred to in the report was the Provincial Mental Institute opened just “nine miles from the centre of the city” of Edmonton in 1923 (Laidlaw, 1923, p. 7; Dick, 1924). The new auxiliary hospital referenced in the report was the Provincial Auxiliary Mental Hospital located in

or not, there was a gradual rise in patient population across the western provinces from 1935 through 1950 (see Figure 2.1). Similarly, Figure 2.2 shows an increase in admissions during the same period, though there was more fluctuation from year to year within each province.

Increasing admissions of particular types of patients, as well as the need to segregate them, further complicated overcrowding. In certain provinces, patients classified as mentally defective were cared for in mental hospitals alongside cases of mental disease. Amidst the pressure of overcrowding at Weyburn for instance, the superintendent suggested that this group of patients would be better served “if they were removed to a home of their own” (MacNeill, 1944, p. 81). Superintendents also reported increasing numbers of aged and senile patients who tended to remain in hospital for the rest of their lives (e.g., Crease, 1942; R.R. MacLean, 1941c; Mathers, 1941; McAlister, 1946). Patients struggling with addiction had also been on the rise and concerns were often expressed that a mental hospital was not the most appropriate place for them as they tended to be minimally responsive to treatment efforts (e.g., R.R. MacLean, 1942; Pincock, 1949c). It was also a struggle to find room to segregate particular types of patients including those with infectious diseases like tuberculosis (e.g., Crease, 1944; McAlister, 1946), as well as the task of managing the vast number of chronic cases in continuing or refractory wards (e.g., R.R. MacLean, 1942; W. H. M., 1949).

Compounding the problems posed by overcrowding was an inability to retain and recruit hospital staff—a struggle that had existed since the interwar years. In fact, Manitoba’s Provincial Psychiatrist, T.A. Pincock (1942c), indicated “[t]o say there have been serious difficulties in

Raymond, Alberta that opened in February of 1939. It was the second hospital of this type in the province with the other located in Claresholm, Alberta (R.R. MacLean, 1941b).

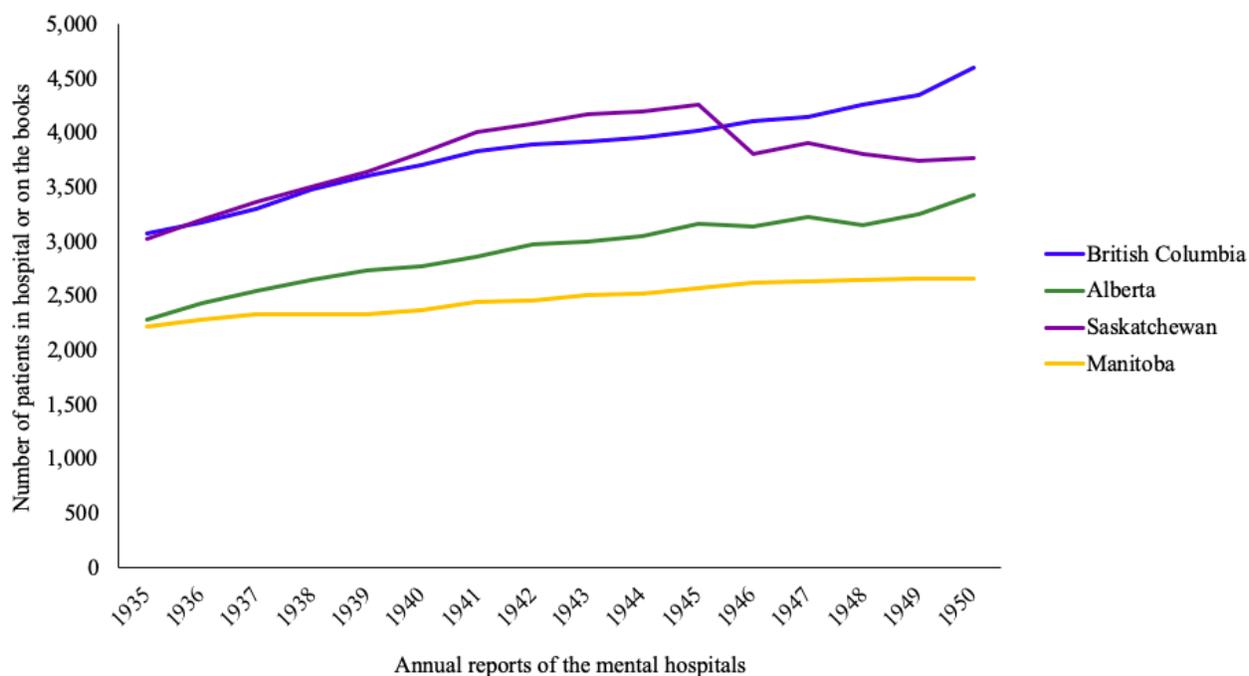


Figure 2.1. Line graph depicting the relative rise in patient population reported in annual reports from 1935 through 1950 across the western provinces (see Appendix B for a list of the annual reports used to create this graph). Provincial figures are not directly comparable because the institutions in BC (Essondale, New Westminster, Saanich) and Manitoba (Brandon, Selkirk, Winnipeg Psychopathic Hospital) reported the total number of patients in hospital whereas the hospitals in Alberta (Ponoka, Oliver/Edmonton) and Saskatchewan (North Battleford, Weyburn, Psychopathic Ward at the Regina General Hospital) provided the total number of patients on the books rather than those under treatment at the various hospitals.^{24,25}

²⁴ There is also variation among the provinces concerning what constituted year-end. In BC, the annual reports during this period consistently reported the patient population at the end of the fiscal year ending March 31st (e.g., Crease, 1936a), whereas those from Alberta reflected the calendar year (e.g., R.R. MacLean, 1942). In Saskatchewan and Manitoba, there was variation between—and within—annual reports throughout this period (e.g., Campbell, 1939; Mathers, 1939b; Pincock, 1940).

²⁵ While the graph shows that Saskatchewan experienced a sudden drop in patient population from the 1945 to the 1946 annual report, this is due to the transfer of patients to the School for Mental Defectives at Weyburn, which opened in 1945, rather than an actual decrease in patient population (Campbell, 1947).

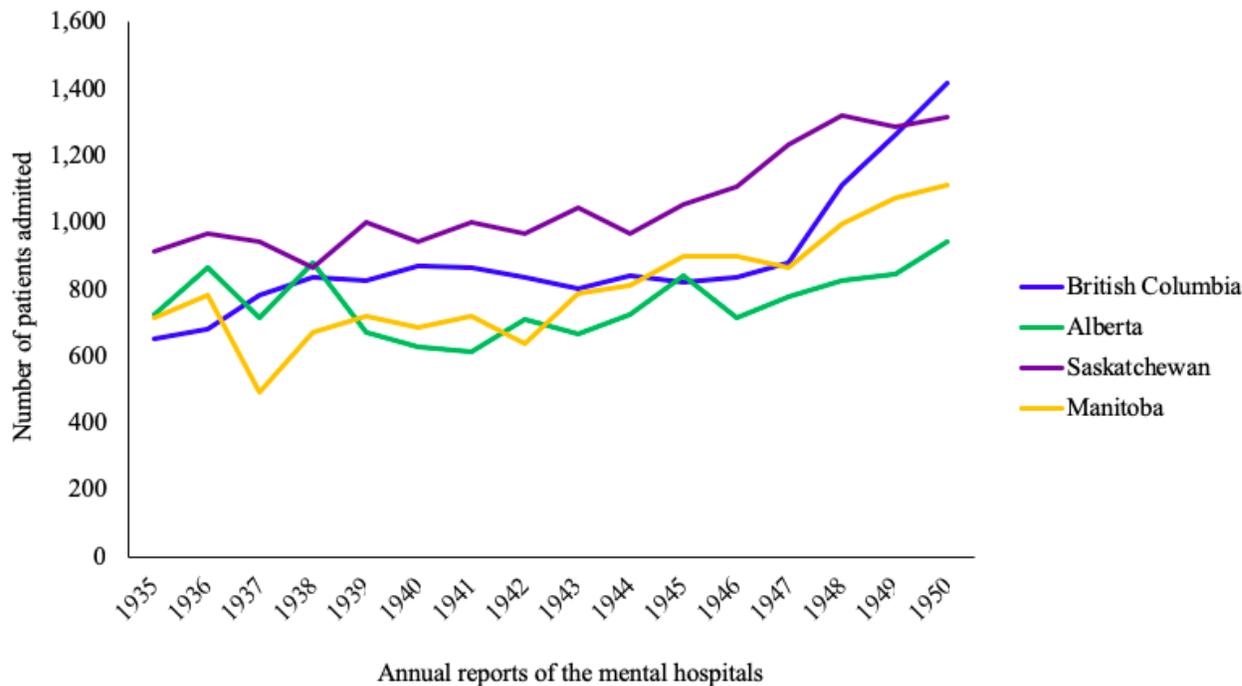


Figure 2.2. Line graph comparing the number of patients admitted to the mental institutions in British Columbia (Essondale, New Westminster, Saanich), Alberta (Ponoka, Oliver/Edmonton), Saskatchewan (North Battleford, Weyburn, Psychopathic Ward at the Regina General Hospital), and Manitoba (Brandon, Selkirk, Winnipeg Psychopathic Hospital) reported in annual reports from 1935 through 1950 (see Appendix B for a list of the annual reports used to create this graph).²⁶

²⁶ The apparent drop in admissions in Manitoba in 1937 was largely a result of the province moving from annual reports according to fiscal year to calendar year between 1937 and 1938. As a result, there were only 490 patients admitted over an eight-month period from May 1 to December 31, 1937 (Mathers, 1939b).

maintaining staff would be an understatement. At times the situation has been alarming” (p. 363). Accordingly, superintendents were constantly required to find replacements on account of illness or death (e.g., Crease, 1944, Pincock, 1943; R.R. MacLean, 1941b), retirement (e.g., Crease, 1944), women who became ineligible to work or worked less after getting married (e.g., Barnes, 1942), and staff members relocating to a new position or geographical location (e.g., Crease, 1944; R.R. MacLean, 1941b). Moreover, doctors and nurses were regularly sent away for additional training and, thus, unable to contribute to the hospital service while absent (e.g., S. Schultz, 1946; Gee, 1950). In all of these cases, administrators found it difficult to recruit personnel trained in psychiatry in order to replace those who had left or were on leave. R.R. MacLean (1941c), then the medical superintendent at Ponoka, lamented “There was a shortage of medical staff, but it was impossible to obtain the services of satisfactory physicians interested in pursuing psychiatry” (p. 111). At Weyburn, J.W. MacNeill (1945) reported, “...it is next to impossible to obtain suitable staff, or staff of any kind...Every avenue has been approached, and every means tried to obtain help, but with very little success” (p. 74).

By the outbreak of war in 1939, hospitals were required to relinquish even more staff. Stuart Schultz (1942), medical superintendent at Brandon, reported “there has been a progressive depletion of trained staff to the armed forces, munition plants and railroads” (p. 373). Specifically, “Many are acting as non-commissioned officers in small R.C.A.F. hospitals, naval base hospitals, hospital ships and corvettes on convoy, while others are attached to the R.C.A.M.C.” (Pincock, 1942a, p. 144). Despite the problems posed by the loss of staff to the war effort, it was clear that at least some administrators recognized that it was necessary for the battle in which Canada found itself embroiled. For instance, the superintendent at North Battleford, conceded the following:

We are still losing our staff to his Majesty's Forces, but we are able to carry on, and as long as we are able to carry on, and contribute to the War effort, we feel that we are doing our duty to our country. (MacNeill, 1943, p. 90)

Still, superintendents were forced to find replacements whenever possible in order to try and keep up the work in the hospital. As mentioned above, however, much of the time it was exceptionally difficult to locate alternative personnel, but occasionally replacements were found. For instance, when the first and only psychologist on staff at the Provincial Mental Hospital at Essondale "left hurriedly to join the Personnel Division of the active forces," a woman with previous experience in child guidance was secured to fill the void the same year (Crease, 1944, p. T 10).

With ongoing overcrowding and understaffing, superintendents tended to repetitively call attention to the significant impact these issues had on patient care. In some cases, spaces once allocated for patient amusements or similar services were annexed in order to provide enough beds. This was the case at Selkirk, for example, where "it was necessary to take over the library and adjoining small room in the Reception Unit as a dormitory" (E. Johnson, 1943, p. 172). The adequate supervision and safety of patients was also compromised simply because there was not enough staff available to manage the overflow of patients (e.g., R.R. MacLean, 1942; Pincock, 1943). Furthermore, not all patients requiring admission to mental hospitals were even able to access the services they required. Sometimes patients would stay longer at one facility intended for acute care, such as the Winnipeg Psychopathic Hospital, rather than being transferred to a mental hospital where they would have been better served (Mathers, 1942). In other instances, admissions were curtailed with only urgent cases being eligible (e.g., R.R. MacLean, 1942). On

the whole, superintendents regularly expressed their concerns that their ability to offer adequate medical care was at stake. At Selkirk, for example, the superintendent commented that

As a result of the decrease in number of physicians it has not been possible to maintain a high standard of treatment for new admissions and general medical care to all resident patients as desired. However, essential medical needs of the patients are being met. (E. Johnson, 1943, p. 169)

Similarly, in Saskatchewan, the superintendent at North Battleford lamented “I am hoping that the medical staff will be increased so that the work may be adequately performed” (MacNeill, 1940, p.89).

The ability to treat patients using the new somatic therapies was also interrupted on various occasions throughout the war, typically on account of staff shortages. At the Brandon Mental Hospital in Manitoba, 1943 proved to be a particularly challenging year. Insulin shock therapy was first discontinued on the female side of the Reception Hospital on April 25 and had not resumed by the time the annual report for the year had been written. A few weeks later, the treatment was also discontinued on the male side of the reception hospital; however, it was resumed on November 1 (S. Schultz, 1943). With the exception of the insulin shock therapy ward at BC’s Essondale hospital closing in the summer of 1944 to accommodate staff holidays (Ryan, 1944), the treatment was almost continuously offered in BC throughout the war. This was a point of pride for BC physicians and was explicitly noted in the 1945 annual report: “We were able, even though extremely short of medical staff, to carry on the treatment with insulin. Many other hospitals were unable to do so, and this special treatment had to be discontinued” (Crease, 1946e, p. BB 10). When Le Bourdais (1947d) published his exposé on Canadian mental hospitals in *Liberty* magazine, he noted that many Canadian mental hospitals had been required to

discontinue insulin shock therapy as a result of not having adequate staff to offer the treatment. Given that hospitals required dedicated and well-trained staff in order to safely offer insulin shock, it may very well have also been the reason it was more often curtailed during and after the war when resources were low. This, in turn, made space for another somatic therapy that emerged mid-war because it required less personnel and was relatively simple to implement into existing treatment regimes.

Electroshock Therapy

In the spring of 1938, electroshock therapy (ECT) was pioneered by an Italian research team led by Ugo Cerletti (Shorter & Healy, 2007).²⁷ In 1936, Lucio Bini and Lothar Kalinowsky accompanied Cerletti on a trip to learn about insulin shock from Sakel in Austria (Shorter & Healy, 2007; Berrios, 1997b). While Kalinowsky would eventually play a prominent role in promoting ECT in America (see Stahnisch, 2016), Bini was a psychiatrist who worked closely with Cerletti in the development of the new technique. In particular, Bini helped build the first ECT machine and participated in early experiments on dogs with the research team (Shorter & Healy, 2007).²⁸ On the basis that inducing convulsions had the potential to treat schizophrenia,

²⁷ While “electroshock” therapy was the original term used by Cerletti (Stahnisch, 2016, p. 399), there is considerable variation in how this treatment was, and continues to be, referred to in the international and Canadian literature. Today, “Electroconvulsive treatment” is a fairly common term used for this form of therapy (e.g., Shorter & Healy, 2007). Historically, across the western provinces, a number of terms were used including “Electric Shock Therapy” (e.g., Pincock, 1942d, p. 368), “Electro Shock Therapy” (e.g., Pincock, 1944b, p. 164), “Electrical shock treatment” (e.g., Crease, 1942, p. Y 10), “Electro-Shock treatment” (R.R. MacLean, 1945, p. 114), and more generally grouped in as a form of “Convulsive Shock Therapy” as an alternative to Metrazol (e.g., S. Schultz, 1942).

²⁸ Although both Cerletti and Bini tend to be credited with the development of ECT, Berrios (1997b) observed that the former credited only himself. There were also additional members of the research team that have received less attention for their work on ECT (see Shorter & Healy, 2007).

Cerletti and colleagues felt that electrical current would be a more prudent mode of achieving seizures as opposed to the increasingly used Metrazol shock therapy devised by Meduna (Shorter & Healy, 2007; Berrios, 1997b). Unlike Metrazol where patients were subjected to an exceptionally uncomfortable delay from the time of injection to the start of convulsions, ECT rendered patients unconscious almost immediately. Early on, it was clear that ECT offered a better alternative for both patients and physicians (Shorter & Healy, 2007).

The initial spread of ECT was slowed by the beginning of the Second World War because there was limited access to the first article published in Italy in 1940. “Because of the war,” explained Shorter and Healy (2007), “few copies of the journal reached readers outside Europe, and great uncertainty prevailed abroad about exactly how the procedure should be conducted” (p. 44). Still, Kolb and Vogel (1942) reported that, in the United States, “Electric shock therapy first came into appreciable use in 1939 and was adopted more rapidly than either insulin or metrazol. It was being used by 42 per cent of [305] mental institutions during October, 1941” (p. 92). Berrios (1997b) stated that ECT was first used in England in 1939 and was in use in France, Germany, and Spain by the early 1940s.

In the eastern provinces of Canada, there is evidence that ECT was used—though start dates are unclear—in Quebec at the Saint-Jean-De-Dieu hospital in Montreal (“The Treatment,” 1944, p. 6; Perreault, 2012) and, of course, in the famous experiments conducted by Ewan Cameron at the Allan Memorial Institute where intensive ECT was employed (Prkachin, 2018). In a history of the provincial hospital in Saint John, New Brunswick, Dorothy Chen (1967) mentioned that an ECT clinic had been established between 1942 and 1943. In Ontario, the exact start date is unknown; however, Metrazol was replaced by ECT at a number of mental hospitals in the province by November of 1943 (Collins, 2012). While research is sparse on the emergence

of yet another somatic therapy in eastern Canada, insight can be gleaned from the archival records as to the introduction of ECT in western Canada.

As in the case of insulin shock therapy, Manitoba led the way with the implementation of ECT in the west. In the 1941 annual report from Brandon, Pincock (1942a) provided an excerpt from a report given by a physician at the hospital regarding his recent travels to American mental hospitals. The physician, George Little, recounted that ECT was “being used widely in the Eastern States and is being greeted with much enthusiasm. I made a special point of seeing as much of it as possible, and...I recommended to you the purchasing of the necessary apparatus” (p. 138). “A Rahm machine ordered in October 1941,” explained Little in the following year’s report, “arrived in early January 1942 and was promptly put into operation” (S. Schultz, 1942, p. 376). In his report as acting director of the Psychopathic Hospital, Pincock (1942d) specified that ECT was first used in July of 1942 and was beneficial because it “can be administered to visiting Out Patients, some of whom have been saved the ordeal of hospitalization” (p. 368). Selkirk, on the other hand, began using ECT in early 1943 (E. Johnson, 1943). Unlike in the case of insulin shock, where treatment had to be curtailed at times during the war, ECT was used throughout the remainder of the conflict after its introduction into the province (e.g., S. Schultz, 1943, 1946; E. Johnson, 1944).

Details on the use of ECT in Saskatchewan are fairly limited, as little is mentioned in regards to treatment in the annual reports from North Battleford or Weyburn during the war. However, in his report as director of the Psychopathic Ward at the Regina General Hospital, O.E. Rothwell (1944) did confirm that “On September 29, 1942, we changed our shock treatment for patients from metrazol to electric shock” (p. 117). Given that ECT was in use by the fall of 1942 at one institution, it is likely that the other mental hospitals in the province also took it up before

this time or soon after. While not providing a specific date for when ECT began at Weyburn, A.D. Campbell (1946a) indicated in a letter to the acting Commissioner of Mental Services in late 1946 that they would benefit from obtaining a second ECT machine as “We have only the one that has been in use for a considerable period of time and treatments here were held up on one occasion for quite a time till we were able to obtain repairs” (para. 2). There is also evidence that ECT was in use after the war at North Battleford on a “Ward for New Patients, Depressed & Suicidal Patients” (ca. 1946), though, again, the treatment likely commenced earlier there as well.

By early 1943, British Columbia was the next province to start using ECT. Even though it would take several more years to actually implement ECT in the province, its potential was first mentioned in the 1940-41 annual report by the Provincial Psychiatrist and General Superintendent overseeing all of BC’s mental institutions:

Since there are dangers in giving metrazol, and there is a tendency to recurrence of psychosis, other methods of convulsive treatments are being used. Electrical shock therapy is being tried out in some hospitals, as it is claimed that the seizures are of a milder nature than those produced by metrazol. (Crease, 1941, p. N 10)

The following year, Crease (1942) further warmed to the idea of bringing ECT to the province when he stated that the treatment was “gradually growing in vogue and it is now felt that this method will be of some value here” (p. Y 10). Based on a monthly report sent to the Deputy Provincial Secretary from the medical superintendent at Essondale, E.J. Ryan (1943), ECT seems to have begun in February of 1943.²⁹ By April 1, when Crease (1944) penned the 1943 annual

²⁹ In the letter from E. J. Ryan (1943) dated March 12, 1943, Ryan indicated “we have been using the Electric Shock Treatment during the past month. Some of the cases are responding to it but it is too early

report ending March 31, he confirmed that “electric shock treatment has been started and so far we have had five completed cases and many others now under treatment” (p. T 10). Although ECT had largely replaced Metrazol in Manitoba (e.g., Pincock, 1942b) and Saskatchewan (e.g., Rothwell, 1944), BC continued to use the latter “in certain cases,” though “[i]t is not used as much now as formerly, as patients do not like it” (Crease, 1945e, p. GG 11). A few year later, in early May of 1945, a new ECT machine had been procured, though more physicians were needed before it could be put to use (Crease, 1945a). Indeed, by the end of that month, Crease (1945b) reported “With the addition to our staff of a military doctor, we probably will be able to have electric shock available for a larger number of the women patients” (p. 1). Toward the end of 1945, two more ECT machines were purchased and “The doctors in the Female Building have been doing electric shock now for a few weeks and it has made a great difference to the patients and to the hospital” (Crease, 1945d, p. 2).

In Alberta, an “Electro-Shock treatment machine was obtained” in 1943 at the Provincial Mental Hospital, Ponoka, “and replaced Metrazol and Insulin treatments almost entirely” (R.R. MacLean, 1945, p. 114; see Figure 2.3). It is unclear when ECT was first instituted during the year; however, from the outset the superintendent was pleased with the “very gratifying” results (R.R. MacLean, 1945, p. 114). At the Provincial Mental Institute in Edmonton, the superintendent provided little information on the treatments used throughout the war years likely because he knew, to his dismay, that his hospital was for chronic patients and not intended for active treatment (e.g., McAlister, 1944). McAlister (1942) did, however, state the following pertaining to shock therapy—either insulin or metrazol—in the 1941 annual report:

to give any opinion as to the ultimate results” (p. 1). This suggests that ECT began at Essondale sometime in February of 1943.



Figure 2.3. Electroshock machine from Alberta Hospital, Ponoka. This particular model—a “Medcraft Glissando Type Shock Therapy Unit, Model B-24”—dates to the mid-1950s (“Council on physical medicine and rehabilitation,” 1954, p. 126). This photograph was taken by the author (B.M. Collins) of a display located at the Fort Ostell Museum in Ponoka, Alberta. A similar machine (not pictured here) was also viewed by the author at a museum in the basement of the Selkirk Mental Health Centre in Manitoba in July of 2011.

Routine therapy and some specific therapy was carried on, although “shock” treatment for certain types of psychosis was not stressed for the reason that results have not been at all commensurate with the hopes as expressed by its enthusiasts. We do find, however, that it has a definite therapeutic value on certain types of disturbed patients, but this improvement is, for the most part, transitory. (p. 135)

There was no mention of shock therapies, or any indication of when ECT began in Edmonton, after the 1941 annual report (e.g., McAlister, 1945, 1946). This was surprising in light of the fact that McAlister’s counterpart in Ponoka was enthusiastic about the value of ECT in comparison to the other shock therapies (e.g., R.R. MacLean, 1945). In the report from Edmonton for 1945, it was briefly mentioned that “Shock Treatments were given to various patients throughout the Institution,” though no other details were provided (R.R. MacLean, 1947, p. 107). According to Blair (1969), however, ECT and insulin shock had been in use at the Provincial Mental Institute since 1945.

Even though ECT was consistently found to be better suited to patients exhibiting affective symptoms (e.g., Crease, 1945e; R.R. MacLean, 1945), it was clear that this treatment held considerable value for physicians in the western provinces. Manitoba’s T.A. Pincock (1942a) clearly summarized its economic worth when he stated that ECT was “much simpler in operation and there will be a considerable financial saving, the cost of operation being practically nil” (p. 138). Presumably, the simplicity of the treatment enabled physicians to use less staff, which was important during wartime when recruiting and retaining personnel was especially challenging. Moreover, ECT (along with insulin shock) contributed “in larger degree [to] hav[ing] limited considerably the excessive overcrowding which could otherwise have been anticipated” (Pincock, 1944b, p. 164). Of course, any treatment that could decrease

overcrowding—that is, lead to the discharge of patients—augmented perceptions of the psychiatric enterprise.

Psychosurgery's Arrival in Western Canada

Whilst superintendents in western Canada and beyond were grappling with the Great Depression and managing chronically overcrowded hospitals with limited staff, in November of 1935 a neurologist across the Atlantic pioneered yet another somatic treatment—a new experimental brain operation to treat psychosis.³⁰ Egas Moniz (1937) described his innovation, which he called “prefrontal leucotomy,” in this way in his first publication about the procedure in a North American journal:

A year has elapsed since I inaugurated a surgical procedure in the treatment of certain psychoses. Guided by certain physiologic and clinical data, I suggested that by interrupting some of the connections between the prefrontal lobes and other parts of the brain, some modifications might be brought about in the mental processes of psychotic individuals. The first results were encouraging and I published them in a monograph. (p. 1379)³¹

³⁰ There were earlier attempts at neurosurgical intervention in cases of mental disease—albeit poorly received at the time—by individuals such as Gottlieb Burckhardt (see Stone, 2001; Berrios, 1997a), Ludvig Puusepp (see Lichterman, 1993), and Claye Shaw (see Berrios, 1997a). As Pressman (1998) explained “The dissemination of a new procedure...occurs within a particular medical community at a specific historical moment” (p. 56). Thus, it is important to consider precursors and developments in neurosurgery, psychiatry, and medicine in order to understand the emergence of psychosurgery as a tenable technology.

³¹ As was the case with Cerletti not giving adequate credit to Bini in the development of ECT (see Berrios, 1997b), Moniz (1937) did not readily credit the young neurosurgeon, Almeida Lima, who actually conducted the surgeries under Moniz's direction. Not only was Moniz untrained in surgery, he

An early copy of the monograph Moniz referred to was quickly requested by an enterprising neurologist and neuropathologist from Washington, D.C. in early 1936. After obtaining the book, Walter Freeman, along with his young neurosurgical colleague at George Washington University, James Watts, became the first to conduct Moniz's operation in the US in September of 1936 (Pressman, 1998).³² By the end of that year, physicians in Cuba and Brazil had also attempted the operation (Collins & Stam, 2014). While "the Second World War would initially dampen the spread of the treatment in many nations...more than 10 countries had begun using the treatment by the close of World War II" (Collins & Stam, 2014, p. 343). By the mid-1960s, more than 40 countries had taken up the procedure and experimented with a host of modifications in neurosurgical technique and instrumentation (Collins & Stam, 2014; Collins & Stam, 2015).³³

In the Canadian province of Ontario, Freeman was influential in the adoption of psychosurgery in the province—as was the case in various other countries (see Collins & Stam, 2014). The first operation was conducted in the province (and likely in the country) by Canada's first neurosurgeon, Kenneth G. McKenzie, in July of 1941 (Collins, 2012; Simmons, 1990; Reaume, 2008; Baskett, 1996). The majority of what is known about the use of psychosurgery in Canada pertains to Ontario based on a comprehensive account written by Collins (2012). Additionally, we know that psychosurgery was employed in Quebec at several hospitals in

required the assistance of Lima on account of "severe gout which left his hand crippled and incapable of dexterous manipulations" (Tierney, 2000, p. 29).

³² For a comprehensive account of Walter Freeman, James Watts, and the adoption and development of psychosurgery in the United States, see Pressman (1998), Raz (2013), El-Hai (2005), Shutts (1982), Braslow (1997), and Valenstein (1986).

³³ See Chapter 3 for a discussion pertaining to the operative techniques used in western Canada.

Montreal including the Verdun Protestant Hospital by 1944 (Prkachin, 2018), Saint-Jean-De-Dieu Psychiatric Hospital by 1949 (Perreault, 2011, 2012), and the Queen Mary Veterans Hospital by at least 1951 (e.g., Winfield, 1950; “Surgery on brain poses moral issue,” 1951). As well, recent research on the Montreal Neurological Institute indicated that Wilder Penfield and Ewan Cameron dabbled for a time in psychosurgical operations—specifically gyrectomies—in 1944 (Prkachin, 2018). Moving further east, operations were also conducted in the late 1940s at a hospital in Newfoundland (O’Brien, 1989). Finally, there was an announcement in the *Canadian Medical Association Journal* in 1957 of a paper presented by Dr. A.J. Murchison in the Maritimes in September of 1956 pertaining to a “Lobotomy Project in P.E.I.” (McMillan, 1957, p. 256). Otherwise, this is the extent of what is known about the use of psychosurgery in eastern Canada. In western Canada, no scholarly account has been published about its use in the west—until now.

Manitoba

Amidst an increasing patient population, ongoing overcrowding predating the war, and “an alarming reduction in staff,” physicians at the mental institution in Brandon were able to begin psychosurgery during the Second World War (Jackson, 1944, p. 11).³⁴ According to F.W.

³⁴ Throughout this section, it will quickly become apparent that a variety of terms were used by physicians in western Canada including “brain surgery” (e.g., Jackson, 1944, p. 11), “neurosurgery” (e.g., Crease, 1945d, p. 1), “pre-frontal lobotomies” (e.g., Pincock, 1946, p. 174), “leucotomies” (e.g., S. Schultz, 1946, p. 189), and “pre-frontal leucotomies” (e.g., R.R. MacLean, 1951, p. 126). While these terms were often used interchangeably by physicians and administrators, there are, in fact, numerous factors that can be used to differentiate between operative techniques (e.g., entry site, instrument, etc.). A more precise discussion of these techniques is provided in Chapter 3. For now, all of the terms in use in the western provinces essentially referred to any operation that “consists primarily of the destruction of subcortical pathways in the frontal lobes” with the intention of treating mental disease (Reese, 1942, p. 107).

Jackson (1944), Deputy Minister of Health and Public Welfare, it was clear that finding effective treatments was a means to reduce patient population and that leucotomies had the potential to contribute to this effort:

During the past year 15.2% of all patients under treatment were discharged from the Institutions. At Brandon a new form of treatment is being tried, brain surgery being used on certain selected cases and preliminary results would indicate it may have a very definite place in our treatment program. (p. 11)

Less than two years after Ontario, Manitoba physicians embarked on their own journey with psychosurgery on April 10, 1943 (S. Schultz, 1947a).

After the first series of cases were operated on at Brandon—numbering approximately 23 by the end of 1944—psychosurgery ceased (Le Bourdais, 1947d). Although the Provincial Psychiatrist affirmed in the annual report for 1945 that “All newer forms of therapy...[were] carried out with gratifying success,” he reported that the psychosurgical cases from the previous year had been “followed by intensive re-education, and the Medical Superintendent reports that the end results of this form of therapy, justify its continuance” (Pincock, 1946, p. 174). Despite the apparent commitment to this new somatic therapy and developments made concerning a rehabilitation program, there were no operations conducted in 1945, 1946, or 1947 (S. Schultz, 1946, 1947b, 1948). Le Bourdais (1947d) claimed this was on account of a lack of staff, which was later echoed by Brandon’s superintendent in his 1947 annual report (S. Schultz, 1948). Interestingly, in the aftermath of Le Bourdais’s exposé, S. Schultz (1947c) corresponded with the Department of Health and Public Welfare clarifying that “The treatment was discontinued to assess the value of it, not because of shortage of staff” (p. 2).

During the summer of 1948, the federal government began offering health grants that could be applied for on a project-by-project basis by the provinces (Donovan, 1949). These grants proved exceptionally helpful in the area of mental health in Manitoba, which, notwithstanding initial post-war optimism, continued to face crippling overcrowding and lack of personnel. The year before the grants began, the superintendent at Selkirk, E. Johnson (1948) stated “We are greatly impeded in providing adequate medical services by the over-crowding of the wards: As at December 31st, patient population was 40% over rated capacity. This overcrowding creates a vicious circle” (p. 256). Consequently, the Provincial Psychiatrist was clear on the added relief this new source of funding offered: “The Federal Health Grants for Mental Health have given a tremendous impetus to our program of Psychiatric Services” (Pincock, 1949b, p. 190). It is no surprise, then, that S. Schultz (1949b) reported that “Six pre-frontal leucotomies were carried out during the year” at the hospital in Brandon, “and a group has been selected for operations early next year” (p. 203). The following year, the leucotomy program commenced in earnest with 54 cases operated on at Brandon and, after May 1, 1949, there were 36 completed on patients from Selkirk by way of the Psychopathic Hospital (Pincock, 1950b; E. Johnson, 1950).³⁵ In the acting Deputy Minister’s annual report of the approved projects relating to mental health in 1950, Donovan (1951) specifically indicated that an approved grant would be partially put to use in “the expansion of the leucotomy service at the Selkirk Hospital for Mental Diseases” among other initiatives (p. 12).

³⁵ By May 27, 1950, patients were no longer transferred to the Winnipeg Psychopathic Hospital for operation. Instead, patients were operated on at the mental hospital in Selkirk (E. Johnson, 1951). See Chapter 3 for more on the location of operating rooms, logistics involved in sending patients for surgery, and the expansion of psychosurgery programs into the early 1950s.

The value of psychosurgery in Manitoba rested, ultimately, with the ability to increase the number of patients discharged to ease overcrowding. Even though an increase in discharges due to the operation had not been realized by May of 1949, leucotomies offered secondary appeal because they at least demonstrated the efficacy of psychiatric treatment in reducing the use of restraints, coaxing patients into being more amenable to other forms of treatment, and were “successful in transforming a violently disturbed patient into one who is easy to handle and thoroughly adaptable to the routine of the institution” (W. H. M., 1949, para. 13). In E. Johnson’s (1952) report as superintendent at Selkirk, however, leucotomies were given direct credit:

There were 218 patients discharged from hospital. This is a discharge rate of 87.9% based on total admissions and is substantially higher than for any previous year in the history of the hospital. The increase results largely from the successful results we have obtained following leucotomy operations. (p. 162)

Consequently, psychosurgery was effective at reducing the patient population while also being a somatic treatment that Manitoba psychiatrists could ultimately take credit for implementing.

British Columbia

As was the case at other mental hospitals in western Canada, the institutions in BC struggled during the Second World War. As the conflict was coming to a close, hope appeared to be on the horizon. In his annual report written on April 1, 1945, A.L. Crease (1946e) commended the Provincial Secretary for his support and stated that “at long last moves are truly under way to greatly aid in making the hospital environment meet the standards of the Mental Hygiene Commission” (p. BB 13). Several months after Crease penned this statement, the first psychosurgical operation was conducted in August by Frank Turnbull—neurosurgeon at the Vancouver General Hospital and consultant to the Provincial Mental Hospital (Turnbull, 1995;

Turnbull & Davidson, 1949). In the annual report for the following year, Crease (1947) reported that Turnbull had “already done nine cases, with much benefit to the patients and the hospital” (p. HH 11). For BC physicians, lobotomies offered a solution for patients deemed to be “terrific nursing problems” (Crease, 1946a, p. 2) and who did not respond “to any other known methods” of treatment (Crease, 1947, p. HH 11).

Discussions concerning the implementation of psychosurgery in BC, however, predated 1945. In his memoir, Turnbull (1995) recalled attending a talk given by Walter Freeman on lobotomies at a meeting of the Harvey Cushing Society in 1940. Then, “In the early 1940s,” Turnbull recalled, he and A.L. Crease “discussed the merits of the now widely publicized prefrontal lobotomy operation” (p. 235). Initially, Crease expressed interest on a number of occasions about the potential of psychosurgery to treat criminal psychopaths; however, Turnbull felt that “They seemed to...be the worst possible choice for the operation, and I was not enthusiastic” (p. 235). It was not until 1945 that Crease wanted to attempt the treatment and Turnbull was on board because, in part, more recent “published results were encouraging” (p. 235). While not mentioned in his memoir, another possible reason for the delay in commencing psychosurgery in the province may also have been because Turnbull served in the army between 1943 and 1945 and spent some of this time overseas (Patterson, 2000).

The importance of psychosurgery as an active treatment modality for a profession that had long struggled to move away from being custodial was not lost on Turnbull. He described how his “initial observations at Essondale,” after becoming the neurosurgical consultant to the hospital, “confirmed the pessimistic view of mental hospitals that I had read about and from my meagre exposure to psychiatry at medical school... Mental hospitals were almost purely custodial in function” (Turnbull, 1995, p. 234-235). Thus, for Turnbull, as well as many

psychiatrists, psychosurgery offered a more active approach to treating mental illness than was the case historically. In other words, psychiatrists were not simply sitting passively on the sidelines, but were seeking out treatments that would decrease overcrowding. As discussed earlier in this chapter, such a perception was often the case in terms of how psychiatrists were viewed by others outside the discipline. In giving A.M. Gee, the Deputy Superintendent at Essondale, permission to speak to the press who had been inquiring about the use of lobotomies, the Deputy Provincial Secretary directed Gee to “Refer to this operation [as] being more or less in its infancy...but I think it is a good scheme to let people know that you are wide awake at Essondale and taking advantage of any new discoveries” (Walker, 1946, para. 2). The application of these new treatments was evidence for Crease (1947) that “In the last few years psychiatry has come greatly to the fore as a real medical specialty” (p. HH 10). As such, lobotomies in BC helped superintendents manage a vast patient population, particularly those cases that proved most problematic, and to demonstrate that psychiatry could effectively deploy a medical technique to improve the situation.

Saskatchewan

Unlike after the First World War, “World War II restored Saskatchewan’s economy, and the province was set on an upward course with the election of North America’s first effective socialist government in 1944” (Mills, 2007). While the Co-operative Commonwealth Federation (CCF), “above all other, concerned itself with human rights and welfare,” the party was elected without a firm policy pertaining to mental health (Dyck & Deighton, 2017, p. 97; Mills, 2007). Even though their primary goal was the introduction of Medicare, they were also concerned with implementing mental health reforms suggested by Henry Sigerist who had completed a survey at the request of the new Premier, T.C. “Tommy” Douglas (Dyck & Deighton, 2017; Mills, 2007).

While the CCF would ultimately work towards developing a comprehensive community psychiatry program that emphasized prevention and outpatient mental health clinics, the situation in mental hospitals by the end of the war required serious attention and remedy before moving on to these new initiatives (Mills, 2007).

By the end of 1945, ongoing overcrowding and trouble recruiting staff remained significant challenges for Saskatchewan's Department of Public Health (Davison, 1947; Nelson, 1947). In late 1945, however, many "employees who had been absent on Military Service returned to duty, and their return was welcomed as it signified that the War had ended, and because of the work of the Hospital, which greatly needed this trained personnel" (Nelson, 1947, p. 117). During the war, treatment had remained largely the same with the use of existing shock treatments and other therapies available by this time (e.g., Rothwell, 1947). Also notable in 1945 was the opening of the Saskatchewan School for Mental Defectives in November just outside the city of Weyburn (Davison, 1947). While a dedicated facility should have lessened the burden of caring for a group of patients at the nearby mental hospital, Weyburn's superintendent, A.D. Campbell (1947), reported that "the supplying of staff" to the new school "increased our difficulties materially and continues to increase them" (p. 144).

Even though it would take until the early 1950s for the situation to demonstrably improve according to the mental hospital annual reports, the hiring of a new Commissioner of Mental Services, Douglas Griffith McKerracher, in November of 1946 moved the CCF closer to its goals (Mills, 2007). In a speech to the legislature in March of 1947, T.C. Douglas emphasized the importance of recruiting individuals like McKerracher to the province given that the CCF was

'...embarking upon what is a fairly ambitious Mental Hygiene Program... [W]hat is the most important thing, more important than the institutions where treatment is given, will

be the Mental Hygiene Clinics we hope will act as screening places to help us pick up cases in their early stages and provide early treatment.’ (“Mental Hygiene,” 1948, p. 70)

With the aim of emphasizing early identification and prevention, the grossly overcrowded mental hospitals became a barrier to this goal. As Dyck and Deighton (2017) explained, “the Weyburn institution became routinely associated with the failed legacy of traditional institutionalization” (p. 136). One of the problems facing all mental hospitals, not just in Saskatchewan, was overcrowded wards full of patients with chronic conditions deemed largely hopeless prior to the 1940s. Douglas, however, held “a belief in the power of scientific expertise to solve social and mental problems... [and a] belief that severe and chronic mental illness was treatable” (Dyck & Deighton, 2017, p. 97). Thus, figuring out how to manage and treat patients with chronic conditions would be important to the larger goals of the CCF—this is where lobotomy would prove helpful for a time in the province.

In the fall of 1946—around the time that McKerracher took up his new role in the province—the commencement of psychosurgery appeared to be on the horizon at North Battleford. In September, in a letter to the superintendent regarding the need for more registered nurses, Dr. Weil (1946a) indicated that “we will in the near future begin to perform Prefrontal Lobotomies, the post-operative care of which should definitely be in the hands of R.N.’s” (p. 1). By mid-December, Weil (1946b) referred to the hospital at North Battleford as having “the co-operation of a Neuro-surgeon, who has been doing our Prefrontal Lobotomies” (p. 2). The neurosurgeon Weil was referring to was Lorne H. McConnell who—as described in more detail in Chapter 3—was Saskatchewan’s first neurosurgeon (“The death of Dr. McConnell,” 1967; Driver, 2012; Dempson, 1947).

Although it appears from the archival records that surgeries seem to have begun in the province at the hospital in North Battleford between Weil's letters dated September 30 and December 13, 1946, there is convincing evidence to suggest that surgeries may have initially begun as early as 1945. For instance, in an article published in the *Saskatoon Star-Phoenix* on December 14, 1946, it was reported that "About 25 delicate brain operations—known as frontal lobotomy—have been performed at North Battleford Mental Hospital during the last two years" ("Saskatchewan doctor named for delicate operations," 1946, p. 3). An article published in *The Leader-Post* in Regina on the same day stated that "Since early 1945 about 25 of these operations were performed on certain classes of patients at the North Battleford mental hospital" ("New brain operation being used," 1946, p. 3). Additional publications from outside the province—including an article in *Saturday Night* (Dempson, 1947) and another in *The Daily Times-Journal* from Fort William, Ontario ("Operations on brain," 1946)—further support an earlier start date for psychosurgical operations in the province. Indeed, it is possible that a number of surgeries had been completed in 1945 but stopped for a time before Weil (1946a) penned his letter indicating that surgeries were set to begin in the fall of 1946. In fact, Le Bourdais (1947d) reported that "a few leucotomies were performed at the Saskatchewan Hospital, North Battleford, but the treatment was discontinued for lack of proper equipment" (p. 9). Assuming that Le Bourdais had been travelling across Canada throughout 1946, he may very well have visited North Battleford prior to the fall when surgeries began again.

In April of 1947, a hospital conference was held at Weyburn and attended by the Deputy Minister of Public Health, the superintendents from both mental hospitals, D.G. McKerracher, and other members of the staff. At the meeting, "Dr. Weil reported the results of 24 operations performed on patients from North Battleford" ("Conference of the staff," 1947, p. 1). Because

only North Battleford was mentioned as having performed surgeries to that point, the following statement in the minutes suggests that Weyburn had yet to begin operations:

After much discussion it was the opinion of the group that lobotomy had its place in the treatment of the mentally ill. It is felt that this procedure should be carried out at both Saskatchewan Hospital, Weyburn and Saskatchewan Hospital, North Battleford.

(“Conference of the staff,” 1947, p. 1)

In attendance at this conference was the newly appointed superintendent at Weyburn, F.S. Lawson. Before arriving in Saskatchewan to take up his post, he had “served during the war as a Psychiatric Specialist in the R.C.A.M.” and then “joined the staff of the Toronto Psychiatric Hospital” (“Dr. Frederick Samuel Lawson,” n.d., para. 3). Presumably Lawson was familiar with psychosurgery from his time in Toronto and, unsurprisingly, Dempson (1947) reported that 11 operations were completed at Weyburn in August of that year.

The conference minutes from April of 1947 also provided rationale for why psychosurgery was pursued in the province. The minutes stated that the operation “should be performed only on the unmanageable type of patient whose illness has been prolonged... [and] It was felt that results definitely justified the operation on this group as a last resort” (“Conference of the staff,” 1947, p. 1). Still, the minutes are clear that “After much discussion it was the opinion of the group that lobotomy had its place in the treatment of the mentally ill” (“Conference of the staff,” 1947, p. 1). Thus, as was the case elsewhere, the problems of overcrowding and wards replete with chronic patients that had left administrators in Saskatchewan searching for ways to address this population were able to explore psychosurgery as a possible solution and as a mechanism for demonstrating the efficacy of the psychiatric

profession. Figuring out what to do with the most challenging patients was also especially important given the progressive agenda of the CCF.

Alberta

As in the other western provinces, improvement in the conditions that faced mental hospitals began to gradually improve in Alberta after the end of the Second World War. Reflecting on 1945, R.R. MacLean (1947) stated that staffing was improving at the hospitals in Ponoka and Edmonton; however, obtaining adequate female nursing staff remained problematic in both cases. In 1946, various shock therapies, psychotherapy, and occupational therapy were used at both hospitals, with the addition of fever therapy and physiotherapy at the more active treatment hospital in Ponoka (R.R. MacLean, 1948). In his role as director of the Division of Mental Health, R.R. MacLean (1950a) was clear on the benefits of the somatic treatments when he stated:

Despite the controversies which have developed in recent years concerning these treatments, those who have been in mental hospital work for several decades will testify to the revolutionary changes which Shock Therapy and Psychosurgery have brought about. With the introduction of these measures such procedures as prolonged tube-feeding, physical restraint and much seclusion, have passed by, it is hoped forever. (p. 17)

MacLean's statement demonstrated both an arc of progress within the discipline of psychiatry as well as alternative modes at a physician's disposal for controlling an already distended mentally ill population. Lobotomies, in particular, were often "used in chronically disturbed hospital cases with the hope that their behaviour may be so modified that they may be discharged from hospital" (MacPherson, 1948, p. 10).

In contrast to the other western provinces, information on the beginning of psychosurgery in Alberta is scarce and, at times, contradictory. Several (mostly secondary) sources have suggested that surgeries began at Ponoka in December of 1946 (“Six superintendents,” 1961; “Historical notes – A.H.P.,” n.d.; Crouse, 1982). Kinnear (1985), for instance, stated that “From December, 1946 to August, 1949 twenty-two patients had the pre-frontal lobotomy performed [in Ponoka], by a surgeon from Edmonton” (p. 2). Reporting on a survey of Alberta’s institutions, the National Committee for Mental Hygiene (1948) reported that “For active treatment,” Ponoka had “the necessary facilities” including “operating rooms and equipment for lobotomies and other requisite surgical procedures” (p. 12). Yet, it was not until 1949 when the annual report for Ponoka first mentioned that “a limited number of pre-frontal leucotomies” had been conducted during the year (R.R. MacLean, 1951, p. 126).

In contrast to Ponoka, and as previously mentioned, the Provincial Mental Institute in Edmonton was not considered to be an active treatment hospital until 1950 (e.g., R.R. MacLean, 1950a), which is likely why the National Committee for Mental Hygiene (1948) did not mention that psychosurgery was available there at the time of its survey. While the hospital’s annual reports throughout the 1940s and 1950s did not explicitly refer to the use of psychosurgery, a newspaper article in the *Calgary Herald* from 1949 indicated that funds from a federal mental health grant would enable the hiring of “two therapists to work in the re-education of leucotomy patients” at the institution (“4 Alberta hospital,” 1949, p. 9).³⁶ In her history of the hospital, Abercrombie (1983) did not mention psychosurgery among the treatments employed at the

³⁶ The only annual report from Edmonton in the 1940s and 1950s that potentially referred to the use of psychosurgery was in 1955 when MacPherson (1956a) reported on “6 labotomies” (p. 92). Of course, one would need to assume that there was a typographical error and the superintendent actually meant “lobotomies” in order to count this mention.

hospital; though, to be fair, limited attention was given to treatments in general. Conversely, LaJeunesse (2002) suggested that the superintendents at both Ponoka and Edmonton were “intrigued by lobotomy” and the procedure was used at the latter hospital once operating facilities were built in the early 1950s (p. 52).³⁷ On the whole, however, it seems that Ponoka—as the primary active treatment hospital in the province—was the main facility that offered this form of treatment beginning in late 1946.

Conclusion

The 1930s marked an important time in the discipline of psychiatry as concerted attempts were made to develop and implement new somatic treatments in order to better establish the field as an effective medical specialty. The progress made was summarized as follows by a physician in Manitoba in 1949:

In the past forty years psychiatrists have heroically employed fever and freezing, phlebotomy and blood transfusions, fasting and fattening, sedation and stimulation, and numerous other empirical treatments for the psychoses and neuroses; at present only two fundamental physical methods are still employed to any extent in our rather limited psychotherapeutic armamentarium, namely convulsive treatment and insulin treatment, although lately with much hope, psychosurgery has been added. (Lindsay, 1949, p. 1)

³⁷ LaJeunesse’s (2002) work, *Political Asylums*, was the product of a fellowship he received to take a year off from his role with the Canadian Mental Health Association to conduct research that would “benefit the charitable sector in Canada” (p. ii). From a scholarly perspective, LaJeunesse’s work is problematic. While references were provided at the end of every chapter, footnotes, endnotes, and/or in-text citations were not provided for particular claims made. Moreover, in the chapter concerning various treatments—including psychosurgery—a number of anonymous interviews were referenced that cannot be located or reviewed for further information or confirmation. His work is included here because he does briefly mention lobotomies in the province and, in some cases, provides insight that cannot be otherwise located.

The new somatic treatments—insulin and Metrazol shock therapy, electroshock therapy, and psychosurgery—all enabled psychiatrists to prescribe potential remedies, particularly in the case of troublesome and recalcitrant cases. As hospital admissions continued to rise in the 1940s, these therapies were responsible, at least in part, for a gradual rise in hospital discharges. Overcrowding and understaffing that had long plagued institutions in western Canada began to experience some relief on account of these new treatments, which magnified their allure for physicians and administrators alike.

Psychosurgery was similar to the other somatic therapies in a number of ways, yet it was also unique as an especially targeted intervention on the brain—the primary organ thought to be responsible for mental illness from a biological perspective (see Braslow, 1997). As such, after the treatment's introduction into western Canada between 1943 and 1946, each of the provinces needed to make arrangements for delivering the treatment including who would perform the operations, where they would be conducted, and what type of surgical technique would be utilized. It is these arrangements that I turn to in the next chapter.

Chapter 3

Arranging Psychosurgery: Surgeons, Logistics, and Operative Techniques

Once psychosurgery was adopted in the western provinces in the mid-1940s, its execution was enabled by a series of arrangements within and beyond the walls of the operating theatre. These included who would perform the operations, where they would occur, and which surgical technique would be employed. While the early pioneers and promoters of the treatment often delineated their own arrangements in their publications and demonstrated them to visiting physicians (e.g., McKenzie & Proctor, 1946; Freeman, Watts, & Hunt, 1942; Moniz, 1937), they were rarely reproduced identically in other hospitals and countries despite the fact that these institutions functioned similarly. As historian Paul Starr (1982) has explained, “Emulating one another, hospitals became more standardized than might have been desirable, offering the same services regardless of the overall needs of their communities” (p. 177). Nevertheless, “there exist[ed] large variations in medical intervention across geographical regions” (Gavrus, 2007, p. 95).³⁸ In following, I argue here that local context shaped how psychosurgery was arranged and deployed across the western provinces and it is in these details where inter-provincial differences become most visible.

In this chapter, three different sets of arrangements that enabled psychosurgery’s use will be discussed. First, psychosurgery could not have proceeded without appropriately trained surgeons available and willing to perform the operations. At the same time, however, the treatment began during a liminal period in the development of neurosurgery in western

³⁸ For more on the history of standardization in neurosurgery see Gavrus (2007) and, in regards to hospitals more generally, see the work of scholars such as Arndt and Bigelow (2006), Morman (1989), and Starr (1982).

Canada—when the line between general surgeon and neurosurgeon was still permeable. While most of those practicing in the west by the 1950s performed psychosurgery, many would not have been considered neurosurgeons by the elite in the field. Second, there were logistical considerations that required negotiating on account of local circumstances. Specifically, access to an operating room equipped for major surgery, determining the frequency and cost of the operations, and preparing and transporting patients to and from those operating rooms. Finally, once those arrangements had been made and the patient and surgeon—along with other necessary personnel—found themselves in the operating room, the performance of psychosurgery itself required a surgical technique. Despite the fact that there were shared practices and technologies employed in operating rooms by this time, the surgical techniques used across the provinces varied considerably. In order to link these arrangements together to show how psychosurgery was deployed on the ground, and in order to enable comparison throughout the remainder of the chapter, I begin by providing a detailed case study from the Brandon Hospital for Mental Diseases.

Millie: A Case Example from the Brandon Hospital for Mental Diseases³⁹

In the fall of 1951, six staff physicians and the medical superintendent gathered at a staff conference to discuss whether Millie, a female patient in her early thirties, would be an appropriate candidate for a leucotomy operation. Reporting on the case to his colleagues, the

³⁹ The case presented here is actually a composite of several similar cases found in the patient records from the Brandon Hospital for Mental Diseases (n.d.), which are housed at the Selkirk Mental Health Centre. In accordance with the research agreement entered into with the Government of Manitoba for this project, the details presented here have been de-identified and generalized in order to protect the privacy of patients who underwent the procedure. While this case is a composite and the name of the patient is fictitious, all of the details presented within are true and based on the archival patient records.

presenting physician began by reviewing Millie's case history starting with the details of her admission more than five years prior and her initial diagnosis of paranoid schizophrenia. He then recounted the intensive, yet largely unsuccessful, treatments she had been subjected to during the winter and spring of 1947 that began with electric shock therapy (ECT) three times per week over a 40 day period followed soon after by 50 days of insulin shock therapy. A recent course of ECT earlier in the year, he explained, had also been attempted with little success. An account of a suicide attempt and several elopements from the hospital were also relayed to those present. Finally, the physician described Millie's presentation and state of mind during an interview with her several days earlier in preparation for the conference. Millie had reportedly been "neat but untidy in appearance...cooperative and accessible, but overactive and overtalkative." Not only had "[s]he voiced various delusions and showed evidence of progressive deterioration," it was pointed out that "she does not work." According to the ward supervisor, her behaviour was characterized as "mischievous, restless, irritable, noisy, resistive, violent, combative and requires single room care because she is also destructive." Finally, "pre-leucotomy scores," calculated using a modified behaviour chart, were provided as quantitative—and thus comparable—evidence of her level of functioning. After concluding the presentation of Millie's case, the floor was opened for discussion with the presenting physician being the first to offer his conclusions and treatment recommendation: "She has had considerable treatment without improvement. Recommend leucotomy." Once the four other physicians present simply indicated their agreement with their colleague's assessment, the hospital's superintendent was the last to offer his opinion: "Paranoid Type, Recommend leucotomy" (Brandon Hospital for Mental Diseases, n.d.).

Because consent had already been obtained from Millie’s relatives more than a month before the staff conference, all that was left was to book her for her operation. Accordingly, a “Notice of Operation” was drawn up and included with Millie’s chart once she and another patient had been scheduled for surgery less than a month later (see Figure 3.1). A few days before her scheduled operation, Millie was transferred from the Women’s Pavilion—where the continuing treatment wards were located—to the female hospital (or infirmary) in the Main Building. Upon her arrival, she underwent a thorough physical examination that included an evaluation of features such as her heart, lungs, reflexes, and abdomen. As part of the pre-operative routine, a series of tests were also ordered such as x-rays of her head and chest, urinalysis, as well as several blood tests (e.g., chemistry, count, matching). Her temperature, pulse, and blood pressure were also recorded on her chart (Brandon Hospital for Mental Diseases, n.d.).

The morning of her operation, Millie was given morphine and atropine, and her pre-operative temperature, pulse, respiration, and blood pressure were taken and recorded on her chart. After the “[s]terile preparation of [her] head [was] done,” she was transported to the main operating room in the Main Building where the physician in charge of anesthesia—one of the hospital physicians—administered novocaine locally and sodium pentothal intravenously as a general anesthetic. Then the surgeon, Dr. H. S. Evans, and his assistant, Dr. Purdie, proceeded to identify the coordinates for the incision and burr holes on both sides of her head (see Figure 3.2 and Appendix C for a description of the surgical procedure). Once bone buttons had been removed and the brain accessed on both sides, several internal coordinates were identified before inserting a leucotome to a depth of 5 cm toward the entry site on the other side. In order to sever the white matter in the frontal lobe, the leucotome was swung downwards until the instrument

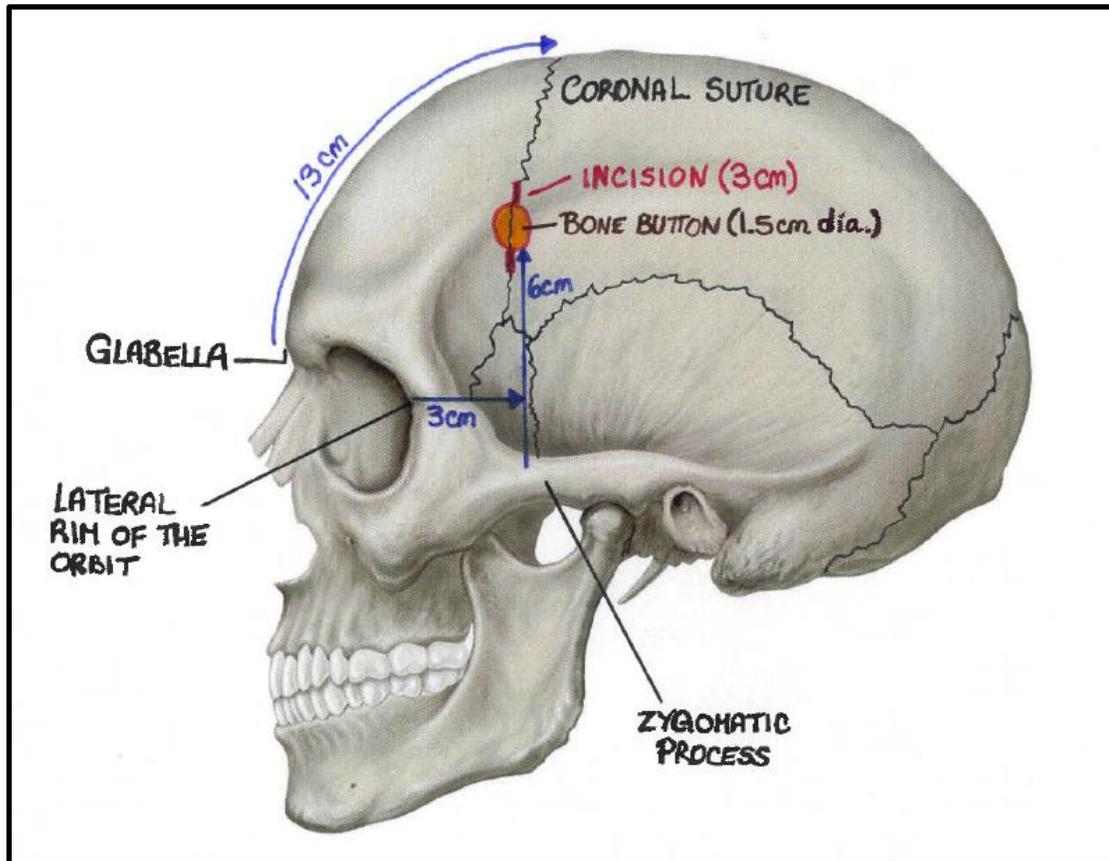


Figure 3.2. Drawing of the external coordinates marking the entry sites in the prefrontal bilateral leucotomy technique performed by Dr. Harold S. Evans at the Brandon Hospital for Mental Diseases. The author (B.M. Collins) mapped the coordinates based on the description provided by Evans (Brandon Hospital for Mental Diseases, n.d.). The underlying image of the skull from the lateral view was created by Patrick J. Lynch, medical illustrator, and C. Carl Jaffe, MD, cardiologist on December 23, 2006 (used according to the Creative Commons Attribution 2.5 License 2006, https://commons.wikimedia.org/wiki/File:Human_skull_lateral_view.jpg).

was at a 45 degree angle and then removed. Next, “[t]he leucotome was reinserted to a depth of 5 cms. and with the surface of the brain as the axis, the leucotome was swung up as far as the opening of the skull permitted.” After repeating the same manoeuvres on the other side, “[t]he wounds were closed by suturing the muscle and scalp and bandage applied.” Roughly half an hour after the surgery began, the anesthesia was ceased (Brandon Hospital for Mental Diseases, n.d.).

Once the operation was complete, Millie was transferred back to the Female Hospital where nurses closely monitored her skin temperature and colour, as well as frequently recorded her blood pressure, temperature, pulse, and respiration. The post-operative routine also included ordering various blood tests and urinalysis. The next day, Millie’s vitals were again recorded and, despite some nausea and one bout of vomiting, she was able to consume food and liquids as per usual. She was also up and out of bed in order to use the restroom during the day. Over the course of the next week, Millie’s vitals were continually monitored and, on several days, “[c]amisole restraint was necessary to keep the patient from removing the bandages.” A week after her operation, the sutures were removed and Millie was transferred back to the ward in the Women’s Pavilion to begin rehabilitation (Brandon Hospital for Mental Diseases, n.d.).⁴⁰

The (Neuro)surgeons

Millie’s operation was conducted by Harold Stuart Evans who, by all accounts, was a general surgeon (Parkinson, 1995). He established his practice in Brandon in 1938 and served as a staff surgeon at the local general hospital (“Prairie Canada News,” 2016; Schultz & Evans,

⁴⁰ Chapter 4 addresses a number of administrative procedures mentioned in Millie’s case but not discussed in this chapter including staff conferences, patient selection, the process of obtaining consent, and post-operative rehabilitation and assessment.

1953). Aside from the first two leucotomy operations conducted at the mental hospital in 1943, Evans performed all subsequent procedures from March of 1944 through the winter of 1957 (Brandon Hospital for Mental Diseases, n.d.; “Brandon Mental Hospital leucotomy service,” n.d.; Parkinson, 1995; S. Schultz, 1944c, 1953; Schultz & Evans, 1953).⁴¹ While it is not clear whether Evans performed any other form of neurosurgery at the general or mental hospital, he was retained in the role of “Consulting Surgeon for the Leucotomy Service” courtesy of the federal mental health grants that had become available to the provinces beginning in 1948 (Refvik, 1991; S. Schultz, 1953, p. 181; S. Schultz, 1956, p. 184). As for the first two operations in 1943, they were performed by Oliver Sayles Waugh—a surgeon from Winnipeg who also later performed some psychosurgical operations for the mental hospital in Selkirk and several for pain at the Deer Lodge Veteran’s Hospital (Lindsay, 1951; S. Schultz, 1944c; Waugh, Cameron, Howarth, & Matas, 1949). From the limited biographical information that could be located on Evans, there is no indication that he ever received neurosurgical training.⁴² Instead, it is plausible

⁴¹ Physicians from the mental hospital typically assisted Evans in the operating room either as assistant surgeons (e.g., Kenneth Clark who assisted in the early surgeries until he relocated to New York in 1945) or in the role of anesthesiologist (Brandon Hospital for Mental Diseases, n.d.; S. Schultz, 1944c, 1946). Later, Evans worked with his own “Associates” who likely acted in the role of assistant surgeon, such as Dr. Purdie mentioned in Millie’s case (S. Schultz, 1953, p. 175).

⁴² While little is known about his training, Evans served as president of the Manitoba Medical Association in 1949 and was an outspoken critic of a number of provincial health policies (“Schultz hits criticisms,” 1949). The only other biographical data that could be located was that his father, Frank Robert Evans, was an architect in Winnipeg and Evans was one of five children (“Memorable Manitobans,” 2019).

that Waugh taught Evans the procedure because commuting to and from Brandon to perform these surgeries likely conflicted with Waugh's commitments in Winnipeg.⁴³

Even though Evans performed almost all of the psychosurgical operations in Brandon, it was unusual in the western provinces for someone who was so clearly a general surgeon to conduct these procedures. At the same time, however, it would be inaccurate to conclude that all of the other surgeons who performed these operations were neurosurgeons, at least as this designation is understood today. This was because psychosurgery ultimately emerged during a formative period in the development of neurosurgery in North America when the field was still negotiating its professional identity (Gavus, 2011b) and when there was a scarcity of formally trained neurosurgeons in Canada (Parkinson, 1995). In effect, local demand for neurosurgical services in the west, particularly prior to the mid-1940s, led a number of general surgeons to eventually restrict their practices to neurosurgery to meet those needs before more formally trained neurosurgeons began arriving in the late 1940s and 1950s (Feindel, 1967).⁴⁴ And psychosurgery, as a neurosurgical procedure, tended to fall under the purview of these early (neuro)surgeons who often extended their specialized services to local mental hospitals.

Prior to the establishment of certification boards in the United States in 1940 and in Canada in 1945, neurosurgery was not recognized as a formal surgical specialty with defined examinations and credentials (Parkinson, 1995; B. Weir, 2011). As historian Delia Gavrus

⁴³ By the early 1940s, Waugh had become the head of the Department of Surgery in the Faculty of Medicine at the University of Manitoba and was actively involved in local and national medical societies (Mathers, 1939a; "Obituaries: Dr. O. S. Waugh," 1964).

⁴⁴ There is no evidence to suggest that Evans ever restricted his practice to neurosurgery—or even performed any other neurosurgical procedures at the hospitals in Brandon—like those general surgeons who became what I refer to throughout this chapter as "(neuro)surgeons." Thus, it appears that Evans was simply a general surgeon who happened to perform psychosurgery as a service to the mental hospital.

(2011b) has shown, the establishment of the Society for Neurological Surgeons (SNS) in 1920 and, later the Harvey Cushing Society (HCS) in 1931, facilitated the cultivation of a particular identity for neurosurgeons in the absence of formalized standards. In particular, debates surrounding membership enabled these societies to police the boundaries of their growing specialty by withholding membership from those whose “education, ability, professional standing, and moral qualities” were deemed inadequate for inclusion (p. 36). These efforts were deployed, in part, in order to differentiate between the general surgeon—even those performing some neurological surgeries—from the neurosurgeon. This was because “The SNS members of the 1920s certainly felt that even the best general surgeons lacked the knowledge and expertise to understand what the neurosurgeons were really doing” (p. 86). By 1932, a SNS committee codified what they felt constituted “the proper training for a Neurosurgeon”: obtaining a high-quality medical degree, pursuing further training in general surgery and allied fields, completing three years of neurosurgical work, and publishing in the area (p. 104). Academic involvement in experimental research and the quality of one’s character were also crucial considerations for candidacy (Gavrus, 2011b).

Based on these criteria, it is unlikely that many of the men performing psychosurgical, and even neurosurgical, operations in western Canada prior to the 1950s would have been sufficiently trained, accomplished enough, or adequately engaged in experimental work to be considered for membership in the SNS or HCS—and thus qualifying for the title of

neurosurgeon.^{45,46} Yet, as Figure 3.3 shows, with a single exception where information is lacking, all of them received at least some training—ranging from several weeks to several years—at one of three centres: the Mayo Clinic (Rochester, MN), the University of Toronto, and the Montreal Neurological Institute.⁴⁷ Moreover, all of the neurosurgeons they trained with at these institutions were members of the SNS. Alfred Adson from the Mayo Clinic, however, was the only founding member who later served as president of the society in 1932-33 (Gavrus, 2011b; The Society of Neurological Surgeons, 2013). Wilder Penfield became a member in 1926 and was president from 1942 to 1944 (Gavrus, 2011b; The Neurological Surgeons, 2013). The others with whom the western Canadian (neuro)surgeons trained were also members of the prestigious society and served at least a term as president: Winchell Craig (1946-47), Kenneth

⁴⁵ Gavrus (2011b) has explained that neurosurgeons were exclusively male in the first half of the twentieth century. According to B. Weir (2011), “the first female to obtain the FRCSC [Fellow of the Royal College of Physicians and Surgeons of Canada] was Jane Ann Johnson in 1972” who worked in western Canada for a time (p. 214). However, Elizabeth ‘Betty’ MacRae (b. 1941) was the first Canadian woman to train in neurosurgery and practiced in Calgary until 2010 (Gignac, 2010; Johnston, 2002; B. Weir, 2011).

⁴⁶ A search for the Canadian practitioners using the SNS’s membership directory on their website confirmed that none had obtained membership (The Society of Neurological Surgeons, 2011) except for Frank Turnbull in BC (The Society of Neurological Surgeons, 2013). However, it is not clear how many, if any, of the Canadian (neuro)surgeons became members of the HCS or, after 1967, the American Association of Neurological Surgeons (Gavrus, 2011b).

⁴⁷ For more information on the Mayo Clinic, Adson, Craig, and Love, see Spinner, Al-Rodhan, and Piepgras’s (2001). For more on McKenzie and the history of neurosurgery at the University of Toronto, see Alexander (1974), Morley (2004), and Alotaibi et al. (2017). Finally, see Feindel and Leblanc (2016), Gavrus (2011a), Prkachin (2018), and Sadler (2018) for more on Penfield, Cone, and the history of the MNI.

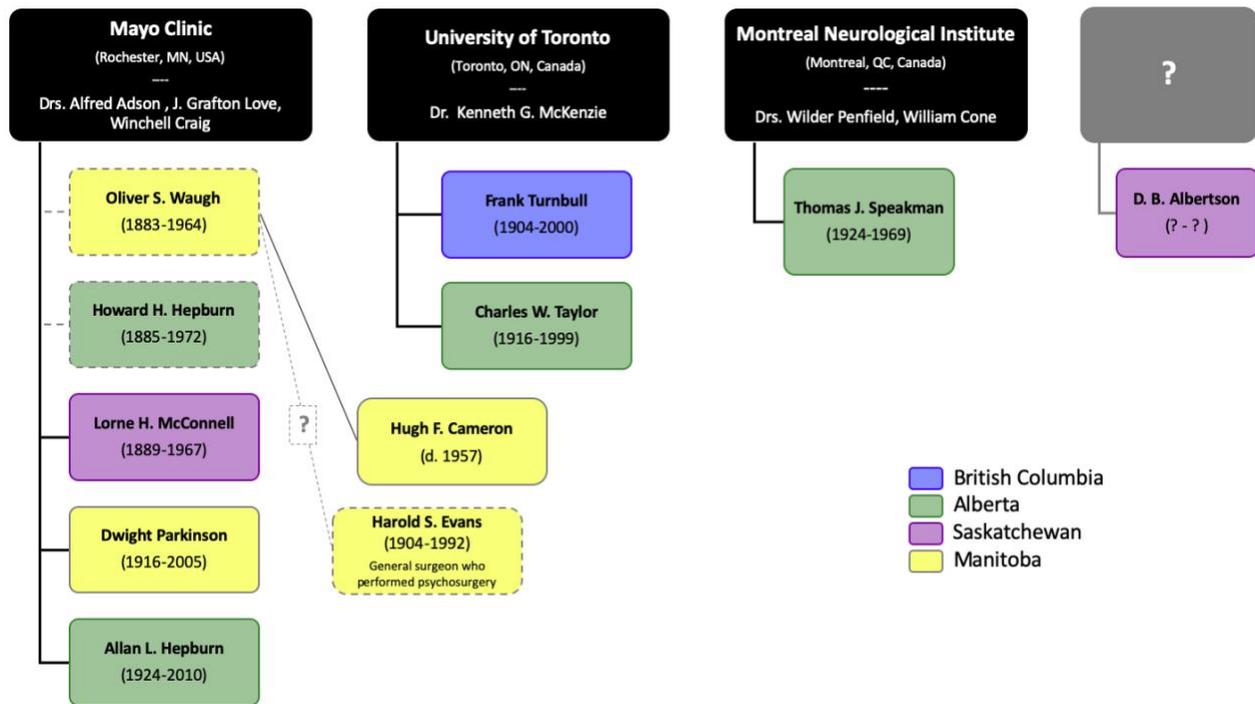


Figure 3.3. Neurosurgical training centres where the (neuro)surgeons who performed psychosurgery in western Canada received their training. Birth and death dates are provided for each practitioner where available.⁴⁸

⁴⁸ Aside from the names listed, there were also several additional (neuro)surgeons who practiced in each of the provinces before 1960, but where no convincing evidence could be found suggesting they performed psychosurgery (though they may have). In BC: Peter Lehmann, Joe Cluff, and Peter Moyes (see Patterson, 2000). In Alberta: Vance Macdonald (A. F. Wilson, personal communication, June 26, 2019; Annear, Hogg, & Cerkenac, 2004) and Guy Morton (MacBeth, 2009). In Saskatchewan: P.B. Ryan (“Regina Grey Nuns Hospital 1907-1957, ca. 1957”). In Manitoba: Rankin Hay and Normal Hill (Parkinson, 1995; Hay, 2003).

McKenzie (1948-49), William Cone (1950-51), and J. Grafton Love (1961-62) (*The Society of Neurological Surgeons*, 2013). It is also worth noting that by 1950, psychosurgery had been performed at all of these centres at least to some extent (e.g., Collins, 2012; Kopell & Rezai, 2003; Prkachin, 2018).

Across the prairie provinces, there were a number of individuals who narrowed their practice to neurosurgery and even took up the first related academic and administrative positions even though they likely would not have been considered neurosurgeons by their contemporaries. Take Oliver Waugh, for instance, who has been memorialized by some as the first neurosurgeon in Manitoba and, even, the west (e.g., Hepburn, 1997; “Obituaries: Dr. O. S. Waugh,” 1964), yet who has been denied this designation by several of the neurosurgeons who arrived in Winnipeg in the 1950s (e.g., Hay, 2003; Parkinson, 1995). This was the case despite the fact that Waugh had been “in charge of all the serious head injuries presenting at [the Winnipeg General Hospital] casualty department” since the mid-1920s, eventually restricted his practice to neurosurgery from the late 1930s, was involved in establishing neurosurgical services at various local hospitals, and served as the head of neurosurgery at the Deer Lodge Veteran’s Hospital from 1930 to 1961 (Hay, 1993; “Obituaries: Dr. Oliver Sayles Waugh,” 1964). Even still, Dwight Parkinson (1995)—who declared himself to be Manitoba’s first “qualified neurosurgeon” with his arrival to Winnipeg in 1950 (p. 902)—and Rankin Hay (2003) who arrived in 1958, did not consider Waugh to be a neurosurgeon. Instead, Parkinson (1995) described Waugh and his colleague, Hugh Cameron—who also conducted psychosurgery at Selkirk (Lindsay, 1951)—as “excellent general surgeons, performing quite adequate emergency and some elective neurosurgical procedures” (Parkinson, 1995, p. 901). From Parkinson’s perspective, and in line with the importance placed upon training by the elite of the day, “Neither

[Waugh nor Cameron] attended one of the training programs in North America existing for over 20 years” (Parkinson, n.d., p. 3). This meant that despite Waugh’s “regular visits [in the 1920s] to established neurosurgical centres, the Mayo Clinic in particular,” and the fact that Cameron received “an Honorary Certification in Neurosurgery” from the Royal College in 1947, their training and experience were simply not adequate enough for inclusion among the neurosurgical elite (Hay, 2003, p. 33, 39).⁴⁹ Nevertheless, whether a general surgeon like Evans, a self-fashioned (neuro)surgeon like Waugh and Cameron, or a formally trained neurosurgeon like Parkinson, all of them offered neurosurgical services in Manitoba and, as part of their work, also performed psychosurgery for the province’s mental hospitals (S. Schultz, 1944c; Waugh et al., 1949; Lindsay, 1951).

Parkinson (1995) was equally dismissive of other early (neuro)surgeons in the prairie provinces. Prior to his arrival in 1950, Parkinson claimed, “one would have [had] to travel 1200 miles [from Winnipeg] to the northwest to Guy Morton in Edmonton” to find a trained neurosurgeon (p. 902). Guy K. Morton, however, was preceded by Howard Havelock Hepburn, who has been described as “the first Neurosurgeon to practice west of Winnipeg” despite his professional background being similar to Waugh’s (Hepburn, 1997, p. 30; Hepburn, 1999, p. 1). After obtaining his medical degree from McGill, working abroad as a physician, and serving in the First World War (Lampard, 2015; McGugan, 1964a), Hepburn “spent a few weeks with Dr.

⁴⁹ After obtaining his medical degree in Manitoba, Hugh Cameron pursued general surgical training in Montreal. He then went to Edinburgh and became a Fellow of their Royal College and spent time at two additional European centres before returning to Winnipeg in 1936 (Hay, 2003). By the late 1930s, Cameron had become “associated with Oliver Waugh’s practice...[and] was appointed assistant neurosurgeon at [the] Winnipeg General Hospital” in 1938 (Hay, 1993, p. 149). This suggests that Cameron received much of his neurosurgical training by working alongside Waugh.

Adson at the Mayo Clinic” in 1919 receiving some neurosurgical training (Lampard, 2015, p. 21; Parney, Allen, & Petruk, 2000). Although Hepburn focused on neurological surgery during the 1920s and 1930s, he continued to perform general surgery and served in several roles at the University of Alberta Hospital (UAE) in this capacity. It was not until 1939 that he restricted his practice to neurosurgical work and became the Chief of the Division of Neurosurgery at the UAE (McGugan, 1964b). Thus, before Guy Morton arrived in Edmonton in 1945 (Parrent, 2009), Hepburn was the primary provider of neurosurgical services in the province (Annear et al., 2004). In this capacity, Hepburn also performed psychosurgical operations in Ponoka until 1949 when he became the interim Director of Surgery at the UAE and then retired the following year (Kinnear, 1985; Lampard, 2015; McGugan, 1964b; “Pre-operative leukotomy,” ca. 1949).⁵⁰ Despite taking up a position at the Workmen’s Compensation Board following his retirement

⁵⁰ The last document cited here (i.e., “Pre-operative leukotomy,” ca. 1949) does not include a date or clear indication that it was written in Alberta. However, it was found in the records housed at the Fort Stoll Museum in Ponoka in two different locations. Establishing when and where this document was written is important as it provides the only primary source information located in the province pertaining to pre- and post-operative instructions and a rehabilitation routine. Using the information provided in the document, the following provides the strongest evidence that it was likely written in Alberta around 1949: (1) Dr. Hepburn, who retired around this time, was mentioned (p. 1); (2) the pre-operative instructions provided were consistent with a pre-frontal lobotomy (p. 1), which was the surgical technique reportedly used at the hospital in Ponoka from 1946 to 1949 (Kinnear, 1985); (3) a “Dr. Murray” was mentioned (p. 1) and, according to the Museum Manager at the Fort Stoll Museum, there was only one physician by this name who worked at the hospital in Ponoka—namely, Dr. Gardner W. Murray who was employed at the institution from September of 1941 to August of 1951 (S. Allsopp, personal communication, June 27, 2019; Kinnear, 1985); and, finally, (4) hospital staff—presumably nurses—who wished to deviate from the routine listed for leucotomy patients were instructed to run them by a “Miss Kirkham” (p. 3) who was appointed Assistant Superintendent of Nurses at Ponoka in 1949 (R.R. MacLean, 1951).

(McGugan, 1964b), Hepburn reportedly still “performed a few prefrontal lobotomies in the late fifties or early sixties” (Hepburn, 2001, para. 2).

Although Guy Morton assumed the role of the Chief of the Division of Neurosurgery after Hepburn’s retirement (McGugan, 1964b), it is unclear whether he also performed psychosurgery. This was not the case, however, for Thomas J. Speakman who arrived in Edmonton in 1952 (Parrent, 2009). According to one of his last residents, Speakman reportedly travelled to Ponoka from Edmonton to perform operations on the way to his cottage (A. F. Wilson, personal communication, June 26, 2019).⁵¹ In Calgary, Charles W. Taylor and Allan L. Hepburn—the first trained neurosurgeons to arrive in the city in 1953 and 1956, respectively—also performed some psychosurgical procedures in the province (Annear et al., 2004).⁵²

⁵¹ Kinnear (1985) reported that pre-frontal lobotomies were conducted at Ponoka from December, 1946 until August, 1949. Howard Hepburn likely performed all of these early operations (“Pre-operative leukotomy,” ca. 1949), and they likely halted in 1949 because he was appointed the interim Director of Surgery at the UAE (McGugan, 1964b). In April of 1951 until July 1968, transorbital lobotomies were reportedly conducted at Ponoka “by a surgeon from Edmonton” (Kinnear, 1985, p. 2). After Hepburn’s retirement and before Speakman’s arrival in 1952 (McGugan, 1964b), it is plausible that Morton may have performed several of these surgeries. Alternatively, they could have been conducted by Hepburn even after he retired or they may even have been done by Vance MacDonald, another neurosurgeon in Edmonton. Little is known about MacDonald’s training or when he arrived in the province; however, he reportedly arrived sometime after the Second World War and worked at the Edmonton General Hospital (A. F. Wilson, personal communication, June 26, 2019; Annear et al., 2004).

⁵² Allan Lockwood Hepburn—Howard Hepburn’s son—initially practiced as a general physician in Alberta after graduating from medical school in 1948 (Annear et al., 2004). Leaving his practice in 1953, he pursued neurosurgical training in Rochester, Minnesota, at the Mayo Clinic (Annear et al., 2004; Hepburn, 1997). After completing his training, he returned to Alberta in 1956. He and Ralph Bailey arrived the same year and offered relief for Charles W. Taylor who had been the only neurosurgeon in Calgary since 1953. While Allan Hepburn remained in Calgary throughout his career, Bailey resigned a

Although Taylor recalled being “‘persuaded to operate’” and Allan Hepburn remembered they “‘had occasion to perform prefrontal leucotomies at the urging of the psychiatrists’” (Annear et al., 2004, p. 9, 19), it is unclear whether Taylor and A. Hepburn conducted these operations in Ponoka or in Calgary. Nevertheless, from Morton onwards, as the number of formally trained neurosurgeons in Alberta quickly increased, so too did the number of men available and willing to perform psychosurgery.

Returning to Parkinson’s (1995) comment once again, another practitioner—Dr. Lorne H. McConnell (see Figure 3.4)—was also overlooked when Parkinson asserted that the nearest neurosurgeon west of Winnipeg was located in Alberta.⁵³ Not only has McConnell been memorialized by some as having pioneered neurosurgery in Saskatchewan (e.g., Driver, 2012; Kambeitz, 2014, p. 12-13; “The Death of Dr. McConnell,” 1967), he was also considered to be a neurosurgeon by his contemporaries in the province. For instance, he was described in Regina’s *The Leader-Post* as “a specialist in brain surgery” (“New brain operation being used,” 1946, p. 3) and, in the *Saskatoon Star-Phoenix*, as “a well-known Saskatoon brain surgeon” (“Statement misleading,” 1948, p. 6). He was also described as a neurosurgeon by physicians and administrators at the provincial mental hospitals (e.g., Lawson, 1951a; Weil, 1946b). While McConnell seems to have received more neurosurgical training than Hepburn or Waugh, he sought this training later in his career after he had established a general practice in Saskatoon

few years after he arrived to take up a position with the Department of Veterans Affairs (Annear et al., 2004).

⁵³ McConnell has been overlooked in a number of accounts concerning the history of neurosurgery in Canada (e.g., Feindel, 1967; Parrent, 2009; B. Weir, 2011). Instead, William Feindel has been identified as the first head of neurosurgery in Saskatchewan in 1955 (B. Weir, 2011) and Krishna Kumar, who arrived in Regina in 1961, as the man who pioneered functional neurosurgery there (Parrent, 2009).



Figure 3.4. Photograph of Dr. Lorne H. McConnell (left) standing beside a local surgeon (Dr. Joseph Cooper) on the steps of the Saskatoon City Hospital in 1943. Source: PH-2005-146 courtesy of the Saskatoon Public Library.

before serving in the First World War (“The Death of Dr. McConnell,” 1967). According to his obituary, “In 1933 and 1934 Dr. McConnell studied at the Neurological Institute at McGill University under Dr. Wilder Penfield and later studied neurosurgery at the Mayo Clinic under Dr. Addison [sic]” (“The Death of Dr. McConnell,” 1967, p. 23). Along with being involved in local medical societies throughout his career (“Annual general meeting,” 1941; “Saskatchewan surgical society,” 1954), McConnell also gave a number of talks on neurosurgical topics in the province including two in 1938 on brain tumours and intracranial lesions (“District medical society news,” 1938) and another in 1946 on prolapsed intervertebral discs (“News from district medical societies,” 1946). Toward the end of his career, McConnell also “served as the Chief of Surgery at the Saskatoon City Hospital” (Kambeitz, 2014, p. 12-13).

As was the case with the other (neuro)surgeons in the west, McConnell performed many of the psychosurgical operations in Saskatchewan from the mid-1940s to the mid-1950s (Lawson, 1956a). While the procedures were initially only conducted at North Battleford by McConnell, the possibility of beginning them at Weyburn was raised in April of 1947 (“Conference of the staff,” 1947). Anticipating that it might be challenging for McConnell to commute to both hospitals,⁵⁴ the alternative possibility of having these surgeries performed at Weyburn by a general surgeon—who would “be given appropriate training”—was raised (“Conference of the staff,” 1947, p. 1).⁵⁵ Indeed, according to a piece in the popular press, Dempson (1947) reported that 11 operations were performed by McConnell at Weyburn in

⁵⁴ North Battleford is roughly an hour and a half drive north-west of Saskatoon, while Weyburn is a three and a half hour drive south-east of the city.

⁵⁵ This demonstrates that either McConnell was in fact a neurosurgeon and simply overlooked for some other reason by Parkinson (1995) and others, or that the permeability of the term neurosurgeon reflected that it was not uniformly applied in western Canada during this period.

August of 1947. However, it is likely that McConnell was unable to travel to Weyburn as frequently as hospital administrators would have liked since the issue came up again at another meeting held in September of the same year. Despite some resistance, it was again expressed that general surgeons should be capable of performing these operations: “The majority of the opinion of the committee, however, was to the effect that a general surgeon with good surgical training could learn the technique and perform the operations” (“Minutes of the psychiatric conference,” 1947, p. 5).⁵⁶

While F.S. Lawson (1951a)—the superintendent at Weyburn until September of 1948—went ahead and asked a local general surgeon, Dr. McGillvray, to perform psychosurgery at Weyburn, the opinion in the province on this matter eventually shifted. In a letter to his superior in 1951, Lawson (1951a)—by then the superintendent at North Battleford—listed the surgical specialists who were currently consulting at that hospital—including Dr. McConnell who “has been doing our neuro-surgery [and] is also certified as a neurosurgeon” (Lawson, 1951a, p. 1). Lawson then went on to explain why only certified surgeons were able to consult for the hospital: “This principle, you will recall, was established when I had Dr. McGillvray at Weyburn do lobotomies at the hospital and it was pointed out that he was not a certified neurosurgeon” (p. 1).⁵⁷ While McConnell continued to perform psychosurgery at North Battleford into the 1950s

⁵⁶ According to the list of attendees, McConnell was not in attendance at either of these meetings (“Conference of the staff,” 1947; “Minutes of the psychiatric conference,” 1947).

⁵⁷ It is possible that opinion on the matter shifted in the province as early as 1948. In July of that year, T.C. Douglas (1948a) sent a directive to the Deputy Minister of Health requesting that surgeries be halted at Weyburn until he could speak with Dr. McKerracher. A month later, McKerracher (1948) sent a memorandum to Douglas indicating that he “recommended...that the practice of performing lobotomies at the Saskatchewan Hospital, Weyburn, be indefinitely discontinued. The Superintendent of that Hospital has been advised accordingly” (para. 1). While the rationale provided for this decision was “the somewhat

(Lawson, 1951a), as well as some at Weyburn (e.g., Townshend, 1953), Dr. Albertson—listed on the neurosurgical service at the Regina Grey Nuns Hospital (“Regina Grey Nuns Hospital 1907-1957, ca. 1957”)—also conducted some at the hospital in Weyburn in the early 1950s (Townshend, 1953).⁵⁸

While all of the early (neuro)surgeons across the prairies have been relegated to the position of general surgeon despite their pioneering neurosurgical work in their respective provinces (e.g., Parkinson, 1995; Feindel, 1967; Hay, 2003), Frank Turnbull of BC proved to be an exception. After having trained in neurosurgery with K.G. McKenzie at the University of Toronto in 1931, Turnbull moved to the coast and took up a position at the Vancouver General Hospital (VGH) in 1933 (Patterson, 2000; B. Weir, 2011). In contrast to his counterparts in other provinces, Turnbull certainly qualified as a neurosurgeon given that he was not only a member of the HCS but also served as the society’s president in 1950 (Gavrus, 2011b; Turnbull, 1950).⁵⁹

experimental nature of this surgical procedure” (para. 1), there is no indication that North Battleford was given the same instruction. This suggests that perhaps the issue of who should perform these surgeries (i.e., a general surgeon or neurosurgeon) may have figured into this directive since McConnell appears to have still been performing these surgeries at North Battleford around the same time (e.g., “Statement misleading,” 1948). It is unclear exactly when surgeries began again at Weyburn; however, the annual report ending March 31, 1951 reported that the operations were being done during the fiscal year at both hospitals (McKerracher, 1952).

⁵⁸ Interestingly, according to Lawson (1956a), “One [operation], I know of, was done by a Philadelphia neuro-surgeon” (p. 2).

⁵⁹ Turnbull also eventually became a member of the SNS (The Society of Neurological Surgeons, 2013). Unlike most other neurosurgeons who belonged to the SNS and HCS, Turnbull was not academically engaged in experimental work on account of the University of British Columbia not having a medical school until 1950 (University of British Columbia Archives, 2016). Turnbull (1950) himself acknowledged that he, and another neurosurgeon from Seattle, were “unorthodox members” because of this (p. 289). Turnbull’s reputation for being “a meticulous surgeon...quiet, dignified, and precise”

Along with being on staff at the VGH, Turnbull also served as the consultant to the provincial mental hospital from 1936 to 1967—with the exception of 1943 to 1945 when he served in the Second World War (Patterson, 2000; Turnbull, 1995). Like the other (neuro)surgeons in the prairie provinces, he too performed psychosurgery as part of his work with the hospital. In fact, it appears that Turnbull performed all of the operations for the mental hospital (e.g., Crease, 1947, 1950a; A.E. Davidson, 1955) and, at least by 1950, his salary in the role of consultant was paid for by federal mental health grants (e.g., Gee, 1951; “\$93,000 grant given mental health plan,” 1950).⁶⁰

In sum, in order for patients like Millie in Brandon to receive a psychosurgical operation, arrangements first needed to be made with an appropriately trained surgeon. What constituted appropriate training, however, was primarily dependent upon whether a surgeon conducted neurosurgical work as part of their practice and were willing and available to conduct psychosurgical operations for local mental hospitals. As such, the line between general surgeon and neurosurgeon was relatively permeable in the west during this time even though there were neurosurgeons in the United States and eastern Canada who—as part of the SNS and HCS—had

(Patterson, 2000, p. 49), however, was consistent with the moral values and professional ethics espoused by the first generation of neurosurgeons (Gavrus, 2011b). See Turnbull’s (1995) memoir for more information on his life and work.

⁶⁰ It appears that one of the other neurosurgeons that arrived after Turnbull, Peter Lehmann (see Patterson, 2000), was publicly supportive of psychosurgical work despite a lack of evidence that he conducted any operations himself. Still, a statement he made at a public discussion in the spring of 1954, hosted by the BC Medical Association, was uncharacteristically supportive of the treatment that many of his contemporaries were more cautious of by that time: “Dr. Lehmann told [a] questioner that lobotomy (a brain operation) is performed on sane people, besides some insane. It is an operation which is not dangerous and the results are generally good” (McCallum, 1954, p. 4).

been working to narrow the boundaries of their emerging specialty to a select number of appropriate men. Ultimately, local need for neurosurgical services in the western provinces trumped professional affiliation and recognition.

The Logistics: Operating Rooms, Frequency and Cost, and Pre-Operative Procedures

Once an appropriately trained surgeon agreed to perform the surgeries, a series of logistical arrangements needed to be made by hospital administrators including where the surgeries would be conducted, their frequency and cost, and the protocol for preparing and transporting patients to the operating room. As this section describes, the way in which these arrangements were negotiated in each of the provinces tended to be based upon existing facilities and resources at their disposal. In most of the provinces, the federal mental health grants that began in 1948 provided the necessary funding for many hospitals to extend their psychosurgery programs by providing new equipment or building operating rooms.

Operating Rooms, Equipment, and Personnel

Whereas Metrazol or an ECT machine could be purchased and the treatments instituted fairly seamlessly in mental hospitals (see Chapter 2), psychosurgery could not proceed without access to an operating room equipped for major surgery. Fortunately, some mental hospitals in western Canada already had the facilities available to accommodate the new treatment. As seen in Millie's case, the Brandon Hospital for Mental Diseases was one such institution.

Psychosurgery was conducted on site from the first surgeries in 1943 through the last in 1957 (e.g., Brandon Hospital for Mental Diseases, n.d.; S. Schultz, 1947a; Schultz & Henderson, 1959). Although the hospital had several operating theatres, these procedures were generally

performed in the main operating room located in the Main Building (Brandon Hospital for Mental Diseases, n.d.; Refvik, 1991; S. Schultz, 1951).⁶¹ Anywhere from a day to a week before their scheduled operation, patients were transferred to the infirmary—also in the Main Building—from other wards around the hospital—such as a ward in the Women’s Pavilion in Millie’s case (see Figure 3.5; Brandon Hospital for Mental Diseases, n.d).

The ability to perform major surgical operations—including psychosurgery—in the main operating room at the hospital in Brandon was further enabled by the purchase of new equipment courtesy of the federal mental health grants (e.g., “\$21,700 in grants,” 1948; S. Schultz, 1950b, 1952c). In 1950, for instance, “two new blood pressure instrument sterilizers; brain surgery instruments as well as a Scanlon-Morris operating table with accessories and a Multibeam light” were obtained (S. Schultz, 1951, p. 161). Major surgery was also facilitated by a blood bank maintained by the hospital (S. Schultz, 1951).

Like the institution in Brandon, both mental hospitals in Saskatchewan had operating rooms by the time psychosurgery began in the 1940s (e.g., McKerracher, 1949b; Mitchell, 1929; Shury et al., 2013). However, initial attempts to offer the treatment at North Battleford were “discontinued for lack of proper equipment” (Le Bourdais, 1947d, p. 9). In an effort to remedy the situation, “The government selected a number [of nurses] and sent them to special training centres. Special equipment needed to conduct operations was also obtained” (“New brain operation being used,” 1946, p. 3). Once the facilities were adequate, surgeries were conducted on site at both hospitals for roughly a decade (e.g., Dempson, 1947; Lawson, 1951a; “New brain

⁶¹ Consequently, when the main operating theatre was closed for a time between 1951 and 1952 in order to be relocated elsewhere in the same building (S. Schultz, 1952c, 1953), the number of leucotomies performed in 1952 declined because “[t]he small Operating Theatre in the Psychiatric Unit was not suitable for this use” (S. Schultz, 1953, p. 175).

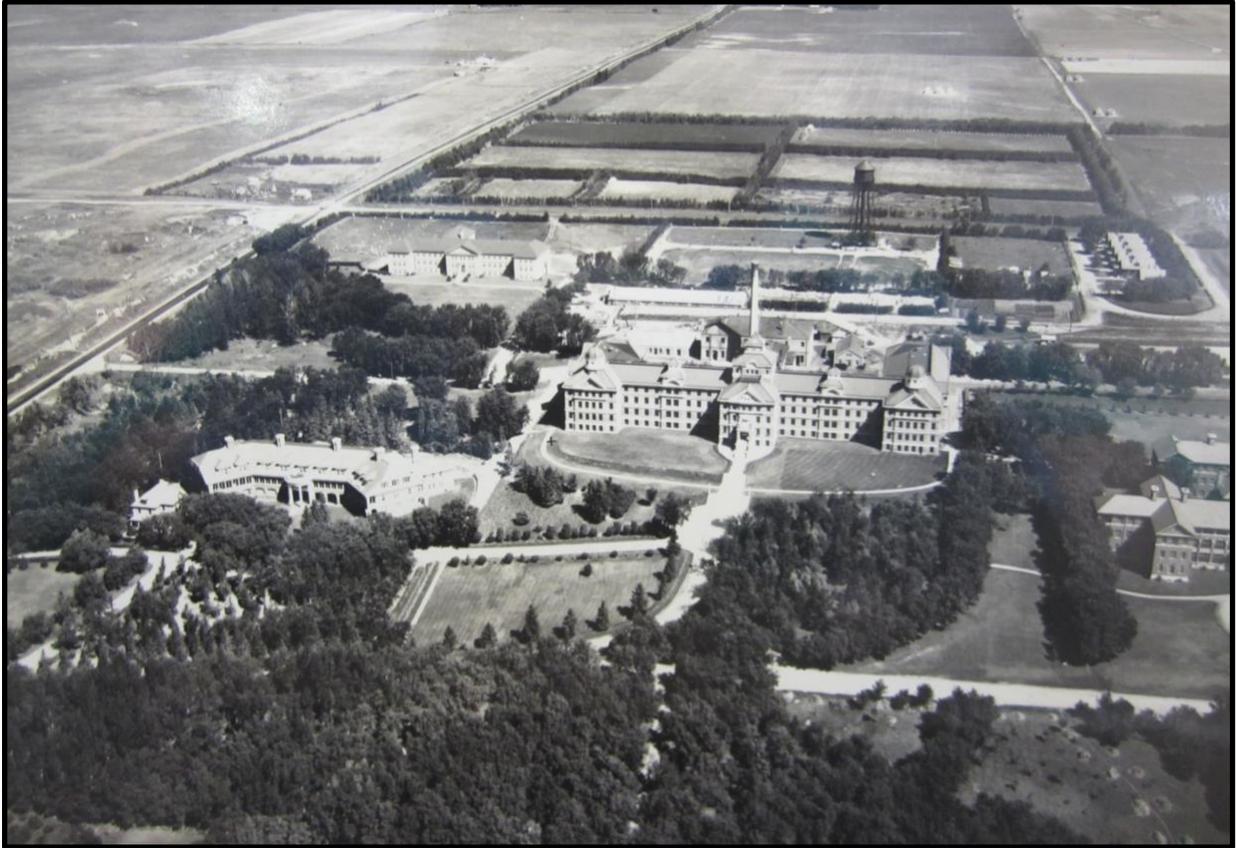


Figure 3.5. Aerial view of the Brandon Hospital for Mental Diseases. The Women's Pavilion is shown on the top left, the Main Building in the centre of the image, and a portion of the Psychiatric Hospital (housing the female and male hospital and the main operating room) is shown on the bottom right. Source: Archives of Manitoba, Brandon-Building-Provincial Brandon Mental Health Centre 17 – aerial view, mental hospital, [19-] (N14777).

operation being used,” 1946; Shury et al., 2013). However, in September of 1948, McConnell reportedly told a journalist from the Saskatoon *Star-Phoenix* that he had also performed surgeries at the Saskatoon City Hospital in addition to both mental hospitals (“Statement misleading,” 1948). To what extent this was the case and when these operations were conducted remains unclear. Furthermore, as was the case in Manitoba, the Saskatchewan mental hospitals benefited from the funds available through federal mental health grants. In 1951, for example, funding was approved that would enable the purchase of two ECT machines at North Battleford while “Surgical instruments are to be purchased so leucotomy operation[s] may be performed at the [Weyburn] hospital” (“Federal grant for equipment,” 1951, p. 3). While surgeries were in fact completed at Weyburn prior to 1951 (e.g., Lawson, 1951a), it is likely that these funds were for the purchase of new instruments or for a set of tools that would remain on site so that the surgeon(s) who travelled to the hospital would no longer need to bring their own with them.

In Alberta, the Provincial Mental Hospital in Ponoka also had its own operating room prior to the adoption of psychosurgery. Located on the third floor of the Heritage Building (see Figure 3.6), “the operating room commenced surgical procedures which were mainly sterilizations” in the fall of 1933 (Kinnear, 1985, p. 1). Both minor and major surgical operations were performed on site including hysterectomies, amputations, dental extractions, and lobotomies (Kinnear, 1985). While “[m]inor surgery was carried out by the regular medical staff” (R.R. MacLean, 1954a, p. 143), major operations were conducted by honorary, or consulting, surgeons from Edmonton and Calgary such as L. C. Conn, R. O’Callaghan, J. W. Richardson, and R. Vant (Baragar, 1936c; R.R. MacLean, 1949, 1954a). And, as mentioned above, several (neuro)surgeons, such as Howard Hepburn and Thomas Speakman, performed lobotomies on site (“Pre-operative leukotomy,” ca. 1949; A. F. Wilson, personal communication,



Figure 3.6. Photograph of the front of the Heritage (Main) Building at the Provincial Mental Hospital, Ponoka (now The Centennial Centre for Mental Health and Brain Injury). The photograph was taken by the author (B.M. Collins) in August of 2014.

June 26, 2019). These visiting surgeons were typically supported in the operating room by “young and/or new doctors who came to work at” the Provincial Mental Hospital and “were posted to either giving anesthetics or assisting the surgeon” (Kinnear, 1985, p. 1).

In contrast to the more remote mental hospitals located in Brandon, North Battleford, Weyburn, and Ponoka, the remaining institutions in western Canada were not immediately able to begin offering psychosurgery on site due to a lack of appropriate facilities. Operating rooms were not as crucial for these institutions given their proximity to major cities, and thus to general hospitals. However, the appeal of psychosurgery, and the availability of funds from federal mental health grants, helped to entice these hospitals into building their own operating theatres in the early 1950s. This was indeed the case at the Selkirk Hospital for Mental Diseases. Yet, the initial absence of an operating room did not seem to deter interest in conducting the operations on the premises. Investigating the possibility, T.A. Pincock (1948a) reported to the Minister of Health and Public Welfare in May of 1948, that “Doctor Waugh and Doctor Cameron have been to Selkirk to investigate the facilities there for doing a series of operations” (para. 2). Presumably the (neuro)surgeons felt that it would be possible given that Pincock went on to explain what would be needed to enable the surgeries to begin at the hospital. “We need some new equipment,” he explained, “and I hope to have a list of this within the next few days when we would be able to estimate the cost of providing for this. It would be an exceedingly good investment” (para. 2). A month later, in a letter addressed to the Deputy Minister, Pincock (1948b) remained convinced that there would be a way to begin psychosurgery at Selkirk by the fall. In doing so, he also articulated several additional arrangements that had been considered:

It had been thought at one time desirable to have the cases brought to the Psychopathic Hospital and operated on at the Winnipeg General Hospital, but this idea was dropped in

favor of doing the work right in the hospital at Selkirk...[The] Cost in bringing [patients] to Winnipeg would almost if not equal the costs of surgical and anaesthetic fees. It has, I understand, been suggested that the patients might all be transferred to Brandon for Surgery. Here again, there are serious objections, and only one need be mentioned. Psychosurgery is a rapidly developing technique, and already there have been modifications and refinements of technique which point to the likelihood of its becoming a procedure limited to the Neurosurgeon...The operation should be performed under conditions in which the need for a craniotomy could be met immediately. (p. 1)

The above presented a contradiction. On the one hand, the Winnipeg General Hospital would have enabled access to both (neuro)surgeons and an appropriately equipped operating room in the event of an emergency. On the other hand, while the (neuro)surgeons could conduct the operations at Selkirk, the surgical facilities remained inadequate in the event that a craniotomy was required. Indeed, four months later, a newspaper article printed in *The Winnipeg Tribune* reported that “An operating theatre for leucotomies (brain surgery) is planned” (Christopherson, 1948, p. 8). Despite Pincock’s (1948b) optimism, operations were unable to commence at the hospital in Selkirk in the fall as he had hoped.

Although “[m]ost of the necessary equipment for the lobotomy service [had been] obtained” through federal mental health grants in 1949, it still “ha[d] not been possible to secure all necessary personnel and equipment to open a lobotomy service” at the hospital in Selkirk (E. Johnson, 1950, p. 189, 186). In the meantime, however, the alternatives that had been decided against back in June of 1948 were revisited in order to forge ahead with the treatment on patients from the hospital: “[A]rrangements were made to have some patients undergo prefrontal lobotomy at the Winnipeg General Hospital...We expect to be able to commence doing

prefrontal lobotomy operations at the hospital within the next three months” (E. Johnson, 1950, p. 186). Despite further delays, E. Johnson (1951), the hospital’s superintendent, was finally able to report that, in 1950, “We opened our leucotomy service at this hospital on May 27th, and by the end of the year 48 patients had undergone operation” (p. 172). Additional facilities were constructed over the next few years, infused by further funds received through the federal mental health grants, including “[a] new and splendidly equipped Infirmary [building] at Selkirk for the accommodation of 300 patients... [that] also houses the Surgical and Medical wards, Operating rooms specially equipped to deal with brain surgery, and a new laboratory and pharmacy” (Pincock, 1954, p. 152).

A similar arrangement between the hospital in Selkirk and the Winnipeg General Hospital was struck in BC. Patients selected for psychosurgery at the hospital in Essondale were transferred 16 miles “to the Psychopathic Ward at the Vancouver General Hospital on the day before operation” (Turnbull, 1948b, p. 417; Turnbull & Davidson, 1949). The operating room at the general hospital was particularly busy where “they were averaging an operation every half hour” (Howarth, 1947, p. 6). Still, as a member of the Women’s Auxiliary who provided a tour to the writer of a column in *The Province* stated, the “frontal lobotomy operation... We’ve done a lot of those here” (Howarth, 1947, p. 6). In contrast to the situation at Selkirk, where efforts were consistently made to bring the surgeries to the mental hospital, the arrangement with the Vancouver General Hospital seemed to work well throughout the 1940s and into the early 1950s. However, performing psychosurgery on site became a possibility with the construction of the Crease Clinic of Psychological Medicine, which was “situated at Essondale, adjacent to the Provincial Mental Hospital” (Gee, 1953, p. T 18). Even before the new facility opened its doors, “the equipment for the operating-room was authorized [through the federal mental health grants

program] as well as...diagnostic, surgical, and therapeutic apparatus for the wards” (Crease, 1950b, p. V 20-V 21). In addition, a nurse was sent for training between 1949 and 1950 at the MNI “in order to take a postgraduate course in neurosurgery,” presumably in preparation for the opening of the operating theatre (Crease, 1950a, p. HH 16). Despite the Crease Clinic commencing operation in January of 1951 (Gee, 1953),⁶² it took until February of 1953 for

The operating-room in the Crease Clinic and surgical ward of 8 beds [to be] opened for general surgery...Patients are received here from the Crease Clinic, the Mental Hospital, The Woodlands School, and the Homes for the Aged for various forms of surgery...It is to be expected that this service will be extended greatly in the upcoming year, and the surgical specialties of orthopaedic surgery and neurosurgery should be added. (A.E. Davidson, 1953, p. T 33)

In the meantime, “patients were referred to the neurosurgical service of the Vancouver General Hospital for further assessment and treatment” (Fister, 1953, p. T 51). Eventually, “orthopaedic surgery and neurosurgery were added as the staff became familiar with the new equipment” (Gee, 1955a, p. R 24). Specifically, “In October, 1953, our neurosurgeon, Dr. Turnbull, began using the operating-room for some of his neurosurgical cases...consisting mainly of prefrontal lobotomies. It is planned as time goes on to perform all types of neurosurgery in our own operating-room” (A.E. Davidson, 1955, p. R 39).

⁶² According to the Director of Mental Health Services, A. M. Gee (1953), “The first patients were received in the Clinic building on April 3rd, 1950, and until December, 1950, this unit served as the admitting centre for the Provincial Mental Hospital, Essondale. The ‘Clinics of Psychological Medicine Act,’ was proclaimed effective on January 1st, 1951, and on that date the first patients to receive active intensive therapy under its provisions were admitted” (p. T 19).

Finally, at the Provincial Mental Institute (PMI) in Edmonton, an operating room was not available on site until the early 1950s. As Kinnear (1985) explained, the Provincial Mental Hospital in Ponoka “performed all of the sterilization procedures for Alberta Hospital Edmonton, and Alberta School Hospital, Red Deer...until each of those institutions acquired their own operating room” (p. 1). Consequently, it is possible that recipients of psychosurgery were also transferred temporarily to Ponoka for the operation—as there were patients at the PMI who were rehabilitating after surgery (e.g., “4 Alberta hospitals,” 1949). Alternatively, patients from the PMI may have been transferred to the UAE for surgery. Nevertheless, when a new tuberculosis building opened on July 1, 1952, “the building contained facilities for surgery, with well-equipped operating rooms. This facility permitted surgical operations to be done right on the premises, reducing the number of referrals to Edmonton’s general hospitals, where holding facilities for mental patients were inadequate” (Abercrombie, 1983, p. 34). Still, R.R. MacLean (1954b) reported that during the first year, “Several of the most difficult cases were transferred to the University Hospital. There was a fair amount of minor surgical and fracture work done by our own staff” (p. 148). The following year, it was reported that “Most of the major operations are done in our own operating room. The only work referred to the University Hospital were the orthopaedic cases which we are not equipped to handle” (R.R. MacLean, 1955, p. 166-167).

Frequency and Cost

Once a (neuro)surgeon and an adequately equipped operating room were in place, hospital administrators needed to make arrangements concerning how often surgeries would occur and their cost. Although little is known about these arrangements in Alberta, and select details were located for Manitoba, it is the archival evidence from BC and Saskatchewan that provides considerable insight into how these details were negotiated. Returning to Millie’s case

and the Notice of Operation that listed relevant logistical details such as the date, time, location, and surgeon (see Figure 3.1 above), two patients were typically scheduled for operation at Brandon on the same day and alternates were often lined up in the event one of the scheduled operations was deferred (Brandon Hospital for Mental Diseases, n.d.). Based on the list of patients who received leucotomies in Brandon, Evans tended to perform psychosurgical operations on Fridays and conducted roughly two per week from October of 1944 onwards until 1955 when they became less frequent (“Brandon Mental Hospital leucotomy service,” n.d.).⁶³ Unfortunately, the frequency of operations at Selkirk remains unclear as does the cost at both hospitals in Manitoba.

Initially in BC, one patient was operated on every two weeks by Frank Turnbull at the VGH (Crease, 1946c). However, in July of 1946, the General Superintendent and Provincial Psychiatrist stated in his monthly report that

Neurosurgery is being steadily followed and we will be able to do cases once a week instead of once every two weeks now that it is proved that lobotomy is a treatment which offers very considerable relief to the most disturbed persons and that they actually cure the more acute agitated manias and depressions. (Crease, 1946c, p. 2)

Prompted by a request from Kenneth McKenzie, at the University of Toronto, Turnbull (1948a) articulated what had been negotiated with hospital administrators in his reply to his mentor:

“You’ve asked about my financial arrangements with the BC government with the prefrontal leucotomies. They pay me \$100 per case, I never do more than one case per week, so the average

⁶³ This was the case with the exception of the period between November 17, 1944 and July 28, 1948 when no surgeries occurred (see Chapter 2; “Brandon Mental Hospital leucotomy service,” n.d.).

payment comes to \$400 per month” (n.p.).⁶⁴ In his letter, Turnbull went on to explain his rationale for striking such an arrangement:

From my own point of view with a busy neurosurgical practice, one of these institutional prefrontal leucotomy cases is as many as we want to handle. I know that in other places, some men are doing two and three in a morning, occasionally several times a week, but the mortality rate in some of these clinics is too high. (n.p.)

This information clearly proved useful for McKenzie who forwarded Turnbull’s letter to the Department of Health in Ontario requesting a similar arrangement (Montgomery, 1948). There is no indication that Turnbull ever operated on more than one patient per week at any point throughout psychosurgery’s use in the province.

In contrast to weekly operations in Manitoba and BC, psychosurgery was performed less frequently at the hospital in North Battleford. According to a list of surgeries conducted at the hospital between January 1950 and September of 1951, McConnell performed a total of 36 lobotomies. As Table 3.1 shows, McConnell’s visits to the hospital were irregular as compared to the schedule maintained by the (neuro)surgeons at other hospitals in western Canada. However, more patients were operated on during each visit with each procedure costing the

⁶⁴ According to Inflation Calculator (2019a), \$100 Canadian in 1948 is equivalent to \$1,139.83 today.

Date	Operation	Surgeon	Amount
June 1, 1950	Lobotomies (3)	McConnell	375.00
July 13, 1950	Lobotomies (4)	McConnell	500.00
August 21, 1950	Lobotomies (4)	McConnell	500.00
October 19, 1950	Lobotomies (4)	McConnell)	648.75
October 19, 1950	Air encephalographies (5)	")	
Nov. 30/50	Lobotomies (5)	McConnell	625.00
Mar. 22/51	Lobotomies (4)	McConnell	500.00
May 10/51	Lobotomies (4)	McConnell	500.00
May 30/51	Lobotomies (4)	McConnell	500.00
May 30/51	Ventriculography	")	102.00
May 30/51	Encephalographies (2)	")	
July 26/51	Lobotomies (4)	McConnell	500.00

Table 3.1. Reproduction of a list of neurosurgical operations conducted by Lorne H. McConnell at the Saskatchewan Hospital, North Battleford between January, 1950, and September, 1951 (Lawson, 1951a).⁶⁵

⁶⁵ While only the neurosurgical procedures are included in the table, the original list included all of the surgical procedures conducted at the hospital during this time including tonsillectomies, bone and skin grafts, laparotomies, and amputations (Lawson, 1951a).

hospital \$125 (Lawson, 1951a).^{66,67,68} The reason for the inconsistent schedule maintained by McConnell may have been due to the distance he was required to travel to the hospital (discussed above), the likelihood that he had a busy practice as one of the only (neuro)surgeons in Saskatchewan at the time, and/or, as a newspaper article claimed in 1952, that “funds limit[ed] the Saskatchewan Hospital in numbers of operations” (Gilhooly, ca. 1952, n.p.).

Pre-Operative Procedures

Several days in advance of Millie’s operation at the Brandon Hospital for Mental Diseases (n.d.), she was transferred to the infirmary ward in the Main Building where the primary operating room was also located. Upon arrival, a clinical chart was commenced to document her time in the infirmary before, during, and after her operation.⁶⁹ Each day, nurses recorded relevant information including examinations, tests, vitals, medications, patient behaviour, and the use of restraints. The following is an example of the first of these entries in Millie’s chart: “Patient was transferred to female hospital from Women’s Pavilion for preparation prior to leucotomy operation. TPR [Temperature, Pulse, Respiration] and general

⁶⁶ According to Inflation Calculator (2019b), \$125 Canadian in 1951 is equivalent to \$1,218.30 today.

⁶⁷ According to minutes from a meeting of the superintendents in February of 1951, McConnell was paid 85% of the amount charged for each operation (i.e., \$106.25 of \$125) “plus mileage at \$50.00. Doctor Albertson is to receive either 85 percent. Of \$125.00 or 85 percent. Of \$106.25” (McKerracher, 1951a, p. 4).

⁶⁸ According to the Director of Administrative Services, G. Townshend (1953), McConnell “was paid \$6,500.00 for his services at North Battleford and \$1,875 for services at Weyburn during the fiscal year 1952-53” (para. 1).

⁶⁹ A summary of the clinical chart was found in many of the patient files viewed on site at the Selkirk Mental Health Centre. It is not clear whether a more detailed chart initially existed or whether the summary was simply the key information documented each day (see Brandon Hospital for Mental Diseases, n.d.).

health good. Urinalysis, blood exam results.” After being transferred and undergoing pre-operative testing, occasionally a patient would be “taken off chart,” returned to their ward, and have their operation deferred on account of pre-operative results that revealed concerns with their physical condition (Brandon Hospital for Mental Diseases, n.d.). While the pre-operative routine was fairly consistent, in 1954, S. Schultz (1955) indicated they “were carefully worked out extending over a period of 21 days with a view to careful selection and the ruling out of any focus of infection” (p. 171).

In Alberta, at least in the late 1940s, it is unclear whether patients first went to an infirmary ward or were transferred to the operating room directly from the ward they resided on. According to a set of instructions that delineated pre-operative protocols for leucotomies at the hospital in Ponoka, the following instructions were provided suggesting that patients may have been transferred from their wards directly to the operating room: “Attendants are often required to bring female pts to the O.R. This is the head nurses responsibility. Charts should be commenced and transferred with the patient” (“Pre-operative leukotomy,” ca. 1949, p. 1). In any case, the instructions indicated that patients who were scheduled for operation the following day were to receive an enema and a sedative the night before (“Pre-operative leukotomy,” ca. 1949).

The morning of the operation, patients at most of the mental hospitals typically received some form of medication and had their heads shaved before being moved to the operating room. At the Brandon Hospital for Mental Diseases (n.d.), such as in Millie’s case, patients were often given morphine and atropine. Specifically, as Schultz and Evans (1953) explained, “Our usual pre-operative sedative is Morphine Sulphate gr. 1/6th with Atropine Sulfate gr. 1/100th given

one half hour preoperatively” (p. 243).⁷⁰ In some cases, penicillin was also administered in advance as a prophylactic (Brandon Hospital for Mental Diseases, n.d.; Perkins et al., 1949). Then, patients’ scalps were prepared and sterilized prior to entering the operating theatre (Brandon Hospital for Mental Diseases, n.d.). In Alberta, at least in the late 1940s, patients were typically given “hyoscine hydromide” and morphine before being transferred to the operating room.⁷¹ The area undergoing surgery was then prepared:

Local preparation consists of shaving mainly frontal regions and some temporal (bilateral). Dr. Hepburn gives the designated areas the morning of op. Frequently he does the prep. himself so a straight razor should always be put on the tray as he prefers using one. He uses bandage[s] for holding the remaining hair back. It is not necessary to shave entire head. (“Pre-operative leukotomy,” ca. 1949, p. 1, underlining in the original document)

It appears that the preparation of the head may have been done after being transferred to the operating room and anesthesia given; however, this is not entirely clear (“Pre-operative leukotomy,” ca. 1949, p. 1). “If the patient is very restless and disturbed,” explained Turnbull (1948b) in BC, “the shaving is not done until anesthesia has been induced” (p. 415). Ultimately, after being appropriately medicated and prepared, patients were transferred to the operating theatre for anesthesia and the operation itself.

⁷⁰ Atropine was often prescribed pre-operatively in advance of anesthesia “in order to depress the vagus nerve sufficiently to counteract its depressive effect on the heart” (Perkins, Hammond, Dwan, & Shapiro, 1949, p. 408). According to Smulyan (2018), Atropine has a variety of medical uses, but “Preoperatively it has been used to reduce salivation and bronchial secretions attributed to the irritative effects of inhaled anesthetics” (p. 444).

⁷¹ Hyoscine was used to treat nausea and motion sickness (e.g., Warren & Findley, 1945).

Surgical Techniques and Post-Operative Procedures

Once patients arrived in the operating theatre, their care was handed off to operating room nurses, additional physicians from the hospital, and, of course, the surgeon. As compared to the macro arrangements discussed above that ultimately brought these individuals together into a well-equipped operating room at an appointed time, there were also a series of micro arrangements—or movements—that occurred within the space itself in the performance of psychosurgical procedures. These included well-established aseptic practices and other mechanisms of control, the administration of anesthesia, and the actual surgical procedures themselves. While other scholars have addressed the emergence of common practices and procedures in the operating room (e.g., Adams & Schlich, 2006; Bliss, 2005; Collins & Stam, 2015; Garipey, 1994; Gavrus, 2007, 2011b; Schlich, 2007, 2013), this section focuses on the variety of psychosurgical techniques employed across western Canada and concludes with the post-operative procedures that commenced immediately after patients exited the operating theatre.

Surgical Techniques

When Egas Moniz initially pioneered his prefrontal leucotomy technique in November of 1935, “the operation consisted of drilling two holes in the patient’s skull, followed by the insertion of a hypodermic needle and injection of a small amount of absolute alcohol (known to cause neuronal death)” (Tierney, 2000, p. 29). After his first series of operations, Moniz

used a specially-designed instrument called a leucotome, a needle-like contraption with a slit on one side and a wire inside. When the leucotome was in place within the brain, the surgeon depressed the wire causing it to bow through the slit. The instrument was then turned, destroying a 1 cm core of white matter. (Tierney, 2000, p. 29)

While Moniz accessed the brain in both cases through superior entry sites, he altered both the instrument and the method employed for destroying the white matter (Moniz, 1937; Tierney, 2000). He called his procedure a “prefrontal leucotomy” (e.g., Moniz, 1937, p. 1379). The term “lobotomy” entered the English lexicon in 1936 when the Americans, Walter Freeman and James Watts, published their first article using the new term (“Lobotomy, n.,” 2019). A few years later, Freeman and Watts revised Moniz’s approach by switching to a non-wired instrument, moving the entry sites from the top of the skull to the side, and using sweeping motions (rather than coring) to lesion the white matter (Freeman et al., 1942; El-Hai, 2005). Over time, the terminology that initially differentiated these operations (i.e., leucotomy and lobotomy) was used interchangeably by their contemporaries (Collins & Stam, 2015; see footnote 34 for the terminology used in western Canada). Thus, to differentiate between the procedures employed by different surgeons, careful consideration of instrumentation, entry sites, and method of lesioning became increasingly necessary.

Examining the surgeries more closely also became important as new procedures and instruments began to emerge in the late 1930s (Collins & Stam, 2015). By the mid-1940s, Turnbull (1995) recalled, “Many respected senior neurosurgeons were now performing the operation, and trying to devise variants of technique that would lead to even better results” (p. 235). Moreover, in contrast to their more conservative predecessors, “the second and third generation of neurosurgeons had an approach to the brain that was more radical and experimental. The neurosurgeons were more likely to sacrifice healthy tissue and to remove larger areas of the brain” (Gavrus, 2011b, p. 169). Consequently, a host of new techniques were introduced including Lyerly’s (1938) prefrontal lobotomy conducted under direct vision, Penfield’s bilateral frontal gyrectomy (Prkachin, 2018), McKenzie’s bilateral frontal lobe

leucotomy (McKenzie & Proctor, 1946), Scoville's (1949) selective cortical undercutting, Pool's topectomy (Pool, Heath, & Weber, 1949), and McKissock's (1951) rostral leucotomy.⁷²

Discussions about surgical technique also occurred at the meetings of medical societies (e.g., Rees, 1949). It is no surprise, then, that BC's Frank Turnbull (1948b) explained that the practice of psychosurgery was "precise, within limitations, but far from standardized" (p. 414).

The diversity of techniques employed in eastern Canada and internationally was also found in western Canada. Indeed, none of the (neuro)surgeons in the west performed the exact same procedure; instead, different instruments, entry sites, and methods for severing the white matter were employed. While it is clear that the brain was entered through superior, temporal, and orbital entry sites, the amount of information beyond these details varies from province to province.

Accessing the brain through temporal entry sites. Returning to the Brandon Hospital for Mental Diseases (n.d.) where Millie underwent her operation, detailed descriptions of the surgical technique used by H.S. Evans were included in patients' files (see Appendix C). These descriptions remained consistent, suggesting that Evans reliably performed the same operation.⁷³

⁷² Psychosurgical techniques that were conducted under direct vision were often completed from the superior approach and consisted of visualizing the white matter such as through the use an instrument that had a light attached (e.g., Lyerly, 1938; Poppen, 1948). There were numerous benefits to the direct approach including the ability to see and immediately cauterize blood vessels (Scarff & Kalinowsky, 1947). In contrast to these types of procedures, the operations conducted by Moniz, Freeman and Watts, and others were considered to be blind procedures because the surgeon relied largely on standard measurements and touch (Poppen, 1948).

⁷³ As referenced above, a newspaper article published in December of 1948 indicated that federal mental health grants had been secured that would, among other things, enable the hospital in Brandon to purchase "\$2,400 [in] equipment for neurosurgery to carry out open operations in the relatively new sphere of leucotomy" ("\$21,700 in grants," 1948, p. 4). There is no indication, however, that open surgeries (i.e.,

The procedure Evans used was identified in the 1944 annual report as the one devised by Freeman and Watts “with certain modifications” (S. Schultz, 1944c, p. 177). It involved temporal access to the brain through burr holes drilled on each side of the skull and significant damage to the white matter in the frontal lobes using sweeping motions by a leucotome (see Figure 3.2 above). While the modifications were never specified, it appears there were only minor differences between the techniques, which likely did not result in notably different outcomes.⁷⁴ According to Schultz and Evans (1953), this procedure was selected for use at Brandon in order to “become familiar with the technique of one particular method” (p. 243). However, in the 1955 annual report, the possibility of introducing a new technique was mentioned based on the procurement of new equipment:

Pursuant with the recent acquisition of a polaroid developing unit, in conjunction with the present surgical unit, it is hoped that in the near future we will be enabled to carry out leucotomies by the newer technique of coagulation diathermy. This technique, utilizing

those conducted under direct vision) were ever completed at Brandon. This was supported by concerns expressed by Pincock (1948b) about general surgeons—like Evans—performing these newer variations. As will be discussed below, there is evidence that operations conducted under direct vision were performed at Selkirk.

⁷⁴ Personnel from the hospital in Brandon never clarified exactly what the modifications were. However, in comparing the technique used in Brandon with Freeman and Watts’s technique, there are a few minor differences that can be identified despite how similar the surgeries were. For instance, in the Freeman-Watts technique, “The white matter in the lower and upper parts of the frontal lobe is cut by swinging the instrument upward and downward in the plane of the coronal suture” (Freeman et al., 1942, p. 79). In the procedure performed in Brandon, however, “The surgeon...cuts the fibres of the frontal lobe with [the] surface of the brain as the axis, [the] leucotome is swung downwards until the floor of the frontal fossa was [reached] and then the point withdrawn...The leucotome was reinserted to a depth of 5 cms. and with the surface of the brain as the axis, the leucotome was swung up as far as the opening of the skull permitted” (Brandon Hospital for Mental Diseases, n.d.).

positioning x-rays which are fully processed within one minute, allows of a much more exact placing of the electrodes in relation to the brain substance than was previously possible. The incidence of the main hazards to this operation, namely, hemorrhage and infection, should also in consequence be reduced. (S. Schultz, 1956, p. 180)

Despite their interest in implementing a new technique at Brandon, there is no evidence to suggest it was ever attempted.

Although the procedure itself did not undergo any changes at Brandon, there were two aspects that did develop over the years. First, the type of anesthesia that was administered changed in the late 1940s. Initially, Avertin, ether, and the local application of novocaine were used in 1943 and 1944. By 1949, however, novocaine continued to be used locally, but intravenous sodium pentothal replaced the earlier drugs (Brandon Hospital for Mental Diseases, n.d.; Schultz & Evans, 1953). Second, the amount of time it took to complete the operations gradually decreased. According to a record of the operation for the first procedure performed in the province on April 10, 1943 by Oliver Waugh, the patient was transferred to the operating room at 8:30am, anesthesia was started at 8:48am, the operation began at 9:25am, and then the operation and anesthesia were terminated around 11:00am. This meant that the first procedure took one hour and 35 minutes.⁷⁵ By the twelfth leucotomy operation conducted in October of 1944 by Evans, the procedure took roughly 45 minutes with the anesthesia started at 8:08am and concluded at 9:28am. By 1950, S. Schultz (1951) reported that “[t]he time of each operation, due

⁷⁵ Given that this was the first operation conducted in the province, a number of individuals were present in the operating room including the hospital superintendent and a number of hospital physicians and nurses (Brandon Hospital for Mental Diseases, n.d.). It is possible that the (neuro)surgeon, Oliver Waugh, was extra cautious given that this was the first operation and/or that he was explaining or demonstrating certain aspects to those present.

to the improved equipment received, has been somewhat lessened” (p. 160). “Our average operating time,” explained Schultz and Evans (1953), “has been thirty minutes” (p. 243).

Accessing the brain through temporal entry sites was also the approach used by Howard Hepburn in Alberta between December of 1946 and August of 1949 (Kinnear, 1985; “Pre-operative leukotomy,” ca. 1949). According to Kinnear (1985), the technique used by Hepburn, a pre-frontal lobotomy or leukotomy “was first performed in [the] U.S.A. in 1936. The operation required lifting a bone flap at each temple and performing an incision of fibres connecting the thalamus [sic] and the pre-frontal region of the brain” (p. 2). According to the instructions provided to nurses at Ponoka, a “[r]ectal anaesthetic--Avertin” was provided to the patient and “a local anaesthetic is administered by the surgeon” (“Pre-operative leukotomy,” ca. 1949, p. 1). In addition, the instructions indicated that “An I.V. should always be on hand ready for use with sodium pentathol [sic] if it becomes necessary” (“Pre-operative leukotomy,” ca. 1949, p. 1). Later, in the 1950s, a new technique where the brain was accessed through the orbits would be introduced at the province’s mental hospitals.⁷⁶

Accessing the brain through superior entry sites. Although Millie and the other patients at Brandon underwent a procedure that closely resembled Freeman and Watts’ standard lobotomy (S. Schultz, 1944c), this does not appear to have been the case at the mental hospital in Selkirk. As Pincock (1948a) explained to the Minister of Public Health and Welfare the year before surgeries began at Selkirk via the Winnipeg General Hospital,

⁷⁶ It is possible that the pre-frontal lobotomy technique continued to be employed after the 1940s even with the introduction of a different method, as Howard Hepburn reportedly “performed a few prefrontal lobotomies in the late fifties or early sixties” (Hepburn, 2001, para. 2) as did Allan Hepburn and Charles W. Taylor from Calgary (Annear et al., 2004). However, it is difficult to confirm without details of the operative procedures themselves given that the terminology was often used interchangeably.

There have been some modification[s] [to] the operation of leucotomy, one of these is being studied by Doctors Oliver Waugh and Hugh Cameron at the present time, and they are considering changing the original technique of Freeman and Watts, which to date, has been used in Manitoba and very extensively in America. They plan to do the operation under direct vision, which should be safer. We have also had the privilege of discussing this technique with the Neuro-Surgeon from Baltimore who has had considerable experience, and Doctors Cameron and Waugh have been in tou[c]h with the latest work in Montreal Neurological and at New York. (para. 1)

While the details of the procedure used at Selkirk were not specified, Lindsay (1951) reported that Oliver Waugh, Hugh Cameron, and Dwight Parkinson “have all employed the same technique, using the superior approach cutting in the plane of the coronal suture and using the Uihlein director as a guide” (p. 229). Techniques that employed a superior approach—where burr holes were drilled on the top rather than the side of the skull—were also used by Moniz (1937) in Portugal and McKenzie in Ontario (McKenzie & Proctor, 1946). Procedures where both superior entry sites were used and the operation was performed under direct vision included those performed by Lyerly (1938), Poppen (1948), and Scarff and Kalinowsky (1947).

Although the evidence suggests that the (neuro)surgeons who operated on patients at Selkirk operated under direct vision, Frank Turnbull (1948b) in BC opted to use a “superior approach and...a ‘closed’ rather than ‘open’ technic of transection” (p. 415). “The operation,” he explained, “is performed under avertin and intratracheal ether anesthesia” (p. 415). The procedure itself was summarized by Turnbull and Davidson (1949) as follows:

Briefly, trephine openings are made over the pre-frontal area on both sides at measured points which lie 4 cm. lateral to the midline and 11 cm. posterior to the junction of the

nasal and frontal bones. Employing special measures to ensure accurate and continuous orientation, the white matter of the frontal lobes is transected through these trephine openings by a specially curved, blunt dissector. The line of transection is a coronal plane which is aimed to remain 0.5 to 1 cm. inside the margin of the cortex and which passes through the anterior tips of the lateral ventricles. (Turnbull & Davidson, 1949, p. 131; see Figure 3.7 below)

Despite the fact that Crease (1949) described Turnbull's approach as "the classical highly approved technique" (p. BB 11), Turnbull (1948b) had actually developed his own procedure based on his experience with, and observations of, the techniques employed by others in eastern Canada and the United States. Indeed, he felt that Moniz's procedure was outdated, that Freeman and Watts's technique lacked accuracy, and that the one developed by his mentor, K.G. McKenzie, was too conservative. In contrast, Turnbull (1948b) claimed that "[t]he plane and the extent of transection that I adopted and employed uniformly in this series of cases is as radical as any that has been devised" (p. 415).^{77,78}

In Saskatchewan, details concerning the surgical technique used in the province are scarce and could only be gleaned from a series of 16 photographs dated August 24, 1950. The images depict a lobotomy operation performed by Lorne McConnell on August 21, 1950, at the mental hospital in North Battleford (Lawson, 1951a; see Figure 3.8-3.10).⁷⁹ As can be seen in

⁷⁷ See Turnbull (1948b) for a more detailed description of the technique he developed.

⁷⁸ Radical can be understood in two different ways. Radical can mean drastic or revolutionary or, as historian Delia Gavrus (2017) intimated in Penfield's work with focal epilepsy, precise in addressing the root or cause of a condition.

⁷⁹ This was determined by cross-referencing the content and date of the photographs with a list of surgical procedures conducted at North Battleford from January 1950 through September 1951 (see Table 3.1 above; Lawson, 1951a). Not only was McConnell the only one conducting neurosurgical operations at

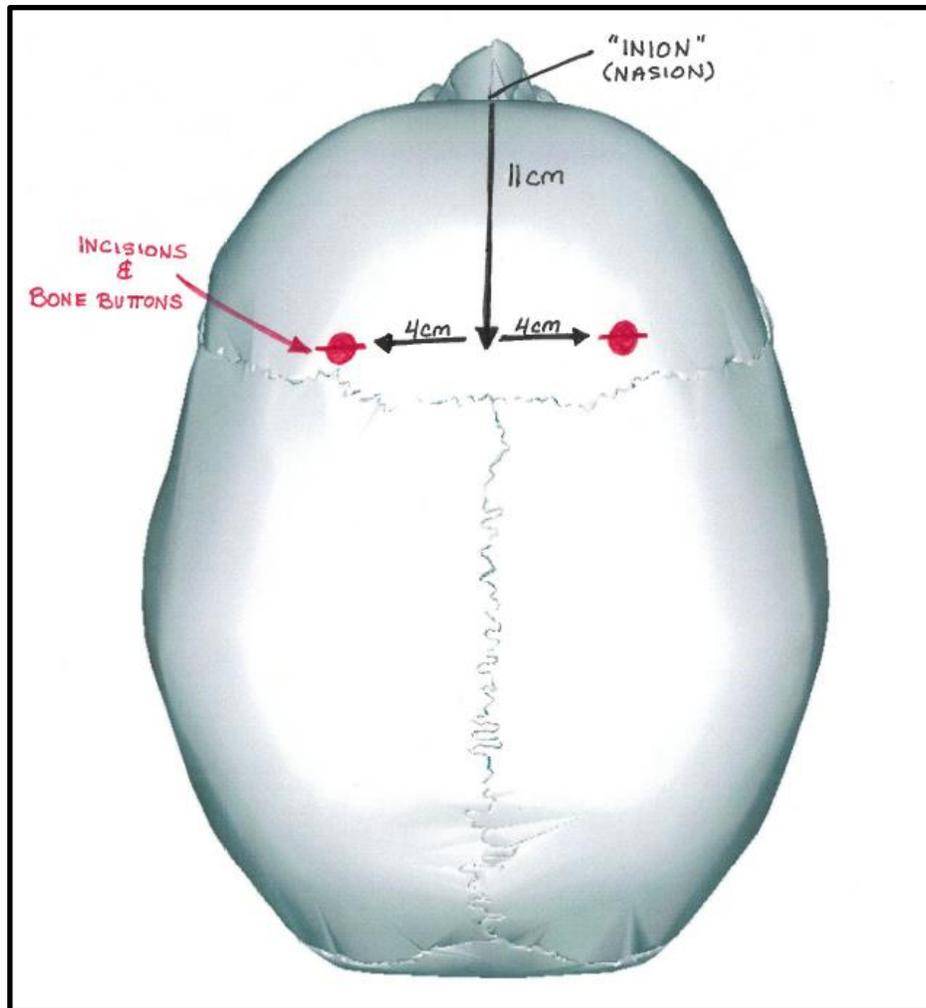


Figure 3.7. Drawing of the external coordinates for the prefrontal leucotomy technique created by Dr. Frank Turnbull (1948b) at the Vancouver General Hospital. The coordinates and labels have been added by the author (B.M. Collins) based on the written instructions provided by Turnbull (1948b).⁸⁰ The underlying image of the skull from the superior view was created by BodyParts3D, © The Database Center for Life Science licensed under CC Attribution-Share Alike 2.1 Japan, December 22, 2012 (https://commons.wikimedia.org/wiki/File:Human_skull_-_superior_view.png)

North Battleford (as described above), but all of the other general surgeries that took place earlier in August (prior to the date listed on the photographs) were not neurosurgical in nature (e.g., bone graft, circumcision) (see Lawson, 1951a).

⁸⁰ While there is consensus that the inion is located on the back of the cranium, Turnbull (1948b) used this term in describing his technique: “Points are marked on the scalp 4 cm. lateral to the midline and 11 cm. posterior to the inion” (p. 415). Based on the measurement and direction listed, it is likely that Turnbull was actually referring to the nasion (the indentation on the front of the skull located between the eyes).



Figure 3.8. Photograph of a lobotomy operation underway in the operating theatre at the Saskatchewan Hospital, North Battleford. Based on the build and stature of Lorne H. McConnell (see Figure 3.4), he is likely second from the right. Source: Saskatchewan Archives, R-A25594, Surgical Operation in Saskatchewan Hospital, North Battleford, August 24, 1950. The copyright holder is unknown and could not be located by the author or by the Saskatchewan Archives.

Figure 3.9. Photograph showing the external coordinates for the incisions that will be made for a lobotomy operation at the Saskatchewan Hospital, North Battleford. Source: Saskatchewan Archives, R-A25595, Surgical Operation in Saskatchewan Hospital, North Battleford, August 24, 1950. The copyright holder is unknown and could not be located by the author or by the Saskatchewan Archives.

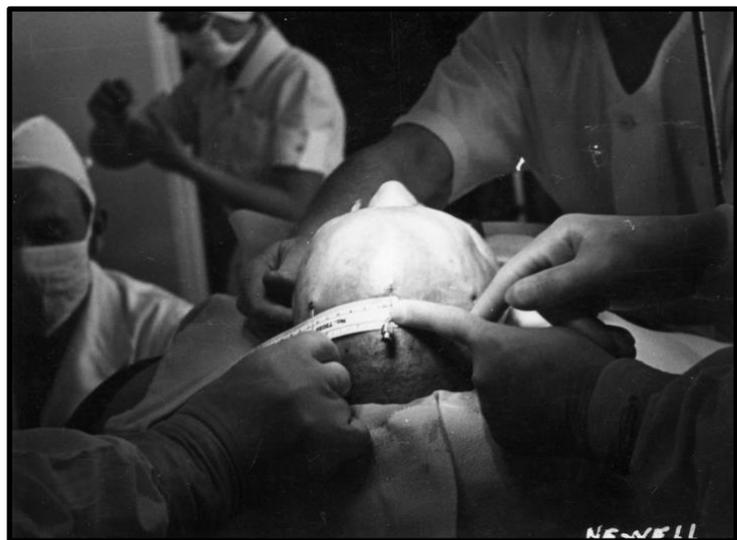


Figure 3.10. Photograph from a lobotomy operation at the Saskatchewan Hospital, North Battleford. The instrument in use in the photograph is possibly a brain needle used for measuring and marking internal coordinates. Source: Saskatchewan Archives, R-A25598, Surgical Operation in Saskatchewan Hospital, North Battleford, August 24, 1950. The copyright holder is unknown and could not be located by the author or by the Saskatchewan Archives.

Figure 3.9 (above), superior entry sites were used and the position of the incisions appear to be 6cm lateral to the midline. With Turnbull's (1948b) procedure indicating the incisions should be 4cm lateral to the midline, McConnell's technique differed at least in the position of the entry sites. Moreover, while the instrument and method for disconnecting the white matter is unclear from the photographs, it is possible that Figure 3.10 shows the use of a brain needle that was often used to measure and identify internal coordinates in the brain prior to the destruction of the white matter (e.g., Turnbull, 1948b).

Accessing the brain through orbital entry sites. Compared to operative techniques where access to the brain was gained temporally or superiorly, procedures that accessed the brain through the orbits were less common and generally frowned upon by many neurosurgeons. This was the case even though one of the pioneers of lobotomy in America, Walter Freeman, was the one to popularize this procedure in 1946.⁸¹ The transorbital lobotomy, as it became known, used electroshock therapy to render a patient unconscious and was promoted as a technique that could be conducted outside the operating room by trained psychiatrists (Collins & Stam, 2015). In McKissock's (1951) review of various techniques, the antagonism of neurosurgeons to this procedure was unmistakable: "Freeman's latest development of transorbital leucotomy...is mentioned only to be condemned; the whole technique offends established aseptic surgical principles" (p. 92). Still, although they were considerably less common, techniques using orbital entry sites were employed in Italy (Kotowicz, 2008), Czechoslovakia (Knobloch, 1950), and in select centres in the US (e.g., Freeman, 1949; Nosik, 1954). In eastern Canada, there is no evidence suggesting that the transorbital technique was used by neurosurgeons; however,

⁸¹ Freeman's work was inspired by a technique devised in Italy in 1937 by Amaro Fiamberti (Collins & Stam, 2015).

Freeman did perform several during one of his visits to Ontario (Collins, 2012; “New surgery techniques,” 1951).

Although Saskatchewan’s F.S. Lawson (1956a) denied that this sort of technique had ever been used in the province,⁸² the technique was discussed on a few occasions in neighbouring Manitoba. For instance, in January of 1949, Ivan Schultz (1949a), the Minister of Public Health and Welfare, sent the Provincial Psychiatrist a letter requesting the latter’s opinion on several new developments he had read about, including the transorbital lobotomy. In Pincock’s (1949a) reply, he stated

The ten-minute brain operation, transorbital lobotomy is an operation which Freeman of the team of Freeman and Watt [sic] has been using extensively. This consists of giving an Electro Shock and while the patient is unconscious from the Electro Shock, driving a sharp “nail like” tool in to the orbit above the eye and wriggling it around, then the next day give a second shock and do the opposite side. The patient gets up immediately after the operation each day, walks about the ward, and all that he has to show for it apparently is a couple of black eyes. This is obviously pretty crude surgery, and I received [a] first hand account of this from Doctor Daniel Blain, Medical Director of the American Psychiatric Association, who called here in September on his way across the country. He had been out to Oregon, where Doctor Freeman had spent some time teaching junior Medical officers of the State Hospital to perform these operations, and they, in turn, had

⁸² Lawson’s (1956a) assurance that a transorbital approach had not been employed in Saskatchewan was in response to a letter from a concerned citizen who described a technique “consisting in taking the eyes out of the patients head and driving sharp instruments directly up into the patient’s brain” (Geldart, 1956, p. 2). While the citizen’s description was inaccurate, she was likely asking about the transorbital lobotomy technique.

gone to other State Hospitals, and were teaching still junior medical officers, on an interne basis to do the operation...The ease of the operation lends itself to this sort of thing, and we feel in the hands of inexperienced psychiatrists will only serve to discredit all psycho-surgery...Generally speaking, the method has shocked the most radical as well as the conservative element in the psychiatric field. (p. 1-2)

While Pincock clearly did not approve of the transorbital procedure, George Elliott, the staff pathologist from the Brandon Hospital for Mental Diseases still took advantage of an opportunity to observe Freeman perform the procedure while visiting Washington, D.C. in the summer of 1949 (S. Schultz, 1950b). Nevertheless, Pincock's position did not seem to shift as the transorbital technique was never performed in the province.

The situation, however, was different in Alberta where this type of procedure was employed at Ponoka beginning in the early 1950s (Kinnear, 1985).⁸³ In an article providing an update on the psychiatric services available in the province, R.R. MacLean (1950a) stated "The present day trend seems to favour the transorbital type of leucotomy in preference to the classical radical operation of sectioning the frontal lobes through 'button-holes' in the parietal region" (p. 17). Six months later, in April of 1951, transorbital lobotomies reportedly began at the hospital in Ponoka using "un-modified E.C.T." in place of "a general anesthetic" (Kinnear, 1985, p. 2).⁸⁴

⁸³ There is evidence to suggest that transorbital lobotomies may also have been performed at the Provincial Mental Institute in Edmonton. Namely, a newspaper article about the hospital commented on the use of these procedures in the US and implied that they were used in Edmonton: "One of the more recent types of brain surgery is an operation known as a transorbital lobotomy...Mental health workers in Alberta report the operations conducted in this province have resulted in an equal number of successes and failures" (D. Smith, ca. 1955, p. 8).

⁸⁴ Modified ECT was where "the patient [was] given a general anesthetic and muscle relaxant" (Kinnear, 1985, p. 2).

The hospital even had their own set of instruments for the procedure (see Figure 3.11), which differed from the ones used by Freeman (see Collins & Stam, 2015). According to LaJeunesse (2002), T.C. Michie “adapted [the transorbital technique] for Ponoka” because the prefrontal lobotomy procedure “was complex... [and] also required a neurosurgeon and was costly” (p. 53). While LaJeunesse seemed to imply that the technique was performed by physicians at Ponoka rather than by (neuro)surgeons, this does not appear to have been the case given that there is evidence that “a surgeon from Edmonton,” such as Thomas Speakman and/or Howard Hepburn, performed the procedures in Ponoka (Kinnear, 1985, p. 2; A. F. Wilson, personal communication, June 26, 2019; Hepburn, 1999).⁸⁵

Post-Operative Procedures

Once the anesthesia was halted, patients entered a short period of post-operative observation and testing before commencing a rehabilitation program.⁸⁶ What the post-operative procedures consisted of—and the length of time patients were subjected to them—varied from province to province. For instance, at the Brandon Hospital for Mental Diseases (n.d.), Millie and other recipients of psychosurgery were transferred back to the infirmary and their temperature, blood pressure, respiration, pulse, and skin colour were carefully monitored and recorded on their charts. In addition, a variety of tests that had also been ordered pre-operatively, such as blood tests and urinalysis, were again ordered. Patients were encouraged to resume their normal diet and get out of bed within a day or two of the operation, though some experienced

⁸⁵ As discussed in footnote 37, LaJeunesse’s (2002) account of psychosurgery in Alberta lacks adequate documentation of sources and contains several discernable errors that ultimately call into question some of his claims.

⁸⁶ See Chapter 4 for an examination of post-operative rehabilitation and assessment across the western provinces.

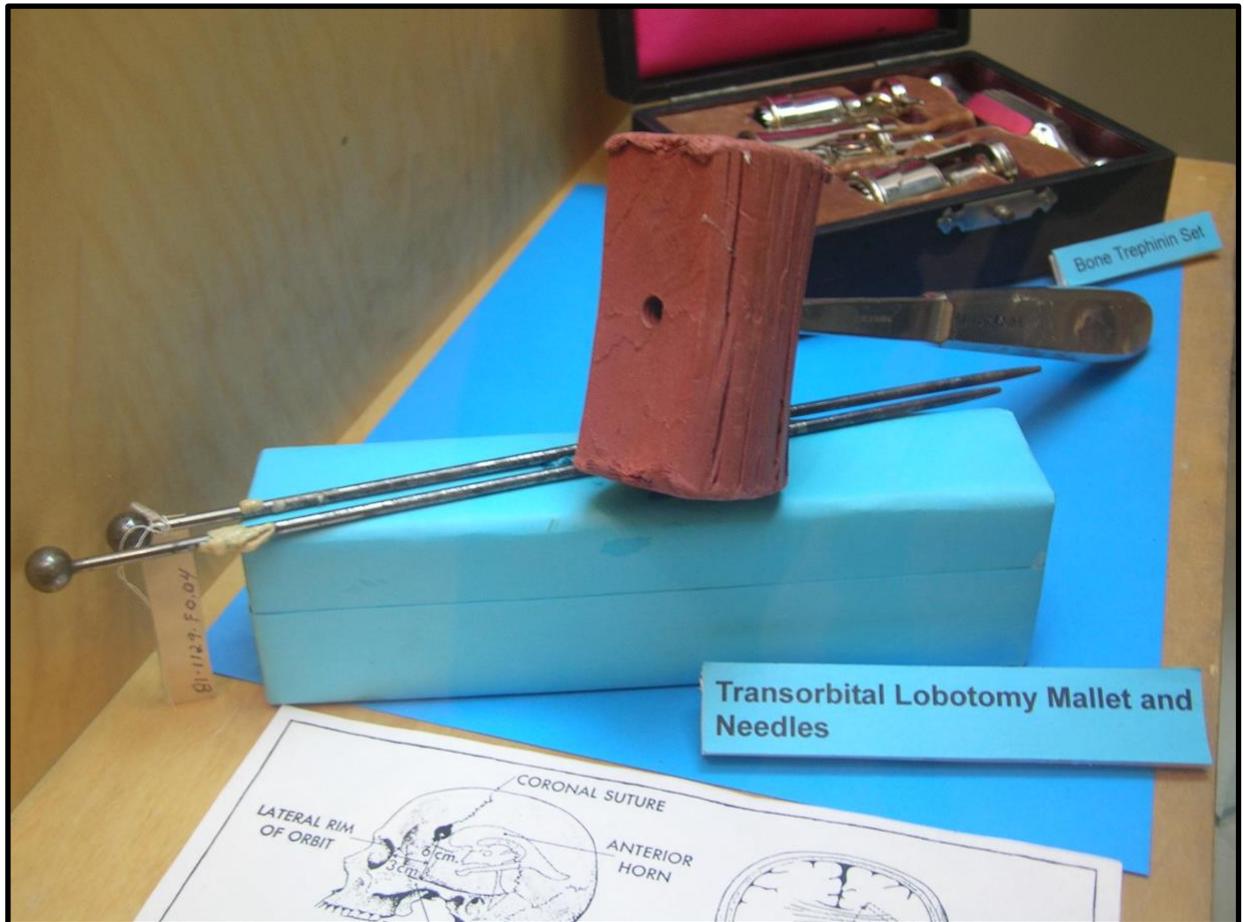


Figure 3.11. Photograph of transorbital lobotomy instruments used at the Provincial Mental Hospital, Ponoka.⁸⁷ Source: Fort Ostell Museum, Ponoka, Alberta.

⁸⁷ Visible in the foreground of the photograph is an image of the external coordinates for the Freeman-Watts prefrontal lobotomy technique originally published by Freeman et al. (1942) rather than the transorbital lobotomy technique.

bouts of vomiting, seizures, or evidence of infections or fever requiring a course of penicillin. In select cases, Dr. Evans was contacted regarding severe post-operative complications. Restraint was necessary in some cases for patients who would not refrain from removing the bandages and allow the wounds to heal on their own. After roughly a week, barring any serious complications that prolonged their stay, the sutures were removed, the incisions “painted with gentian violet,” and patients were “taken off chart” and returned to their respective wards (Brandon Hospital for Mental Diseases, n.d.).

In BC, at least when the operations were being performed at the VGH, patients spent the first week after surgery recuperating in the psychopathic ward (Turnbull, 1948b). Whereas the sutures were removed at Brandon after roughly a week and only some patients were restrained, Turnbull (1948b) explained “We take the stitches out on the second day but keep their arms in light restraint until the fourth or fifth day, when they are allowed up if their temperature is normal. None of them mind the restraint” (p. 417). Assuming there were no complications that delayed their return to Essondale,⁸⁸ patients were “transferred to the infirmary ward of the mental hospital for an average stay of two weeks” (Turnbull & Davidson, 1949, p. 131). They were deemed ready to return to their regular ward once “their incisions are well healed and...[once] vomiting and bowel incontinence are under control” (Turnbull & Davidson, 1949, p. 131). During the two to three weeks immediately following surgery, patients were “encouraged to take an interest in their personal appearance and an attempt is made to interest them in simple tasks”

⁸⁸ Because Turnbull (1948a) operated on roughly one patient per week (discussed above), he explained that “If any complication makes it necessary to keep the patient in the General Hospital for longer than one week, the whole program is delayed by just that interval” (n.p.).

(Turnbull & Davidson, 1949, p. 131). Family members were also able to visit them on the second and third day following the operation (Turnbull, 1948b).

Finally, in Alberta, detailed instructions were provided for nurses tasked with the care of patients who had undergone the operation. Immediately following surgery, for instance, patients' vitals (e.g., blood pressure, pulse) were to be monitored every 15 minutes. On subsequent days, they were to be recorded less frequently. A host of additional instructions concerning the position of the bed, fluid intake, symptoms and behaviours to monitor, and medications to give (e.g., enema, prostigmine) were also provided ("Pre-operative leukotomy," ca. 1949).

Additionally, nurses were to limit the use of narcotics and sedatives and, where needed, employ "warm baths for excitable or restless patients" ("Pre-operative leukotomy," ca. 1949, p. 2).

During this period, patients were also permitted to play with rag dolls, read the newspaper, or listen to the radio ("Pre-operative leukotomy," ca. 1949, p. 2). Although it is not clear how long patients would spend in the pre-operative phase, a patient's stitches were removed a week after the operation ("Pre-operative leukotomy," ca. 1949). Ultimately, once patients across western Canada had undergone the operation and successfully come through the post-operative protocols, they were enrolled in rehabilitation efforts that often took months to complete (see Chapter 4).⁸⁹

Conclusion

In order for psychosurgery to be implemented and offered as an ongoing treatment in the western provinces, a variety of arrangements needed to be negotiated. These included access to appropriately trained (neuro)surgeons, the availability of adequately equipped operating rooms,

⁸⁹ As compared to the other provinces, little information was available concerning the pre-operative phase in Saskatchewan. Weil (1946a), however, was clear that "the post-operative care" following prefrontal lobotomies "should definitely be in the hands of R.N.'s, if possible trained in neuro-surgical nursing" (p. 1).

the establishment of pre- and post-operative protocols, and the (neuro)surgeon's selection of a particular surgical technique. Despite the similarities found across the provinces, this chapter emphasized the differences that were mediated by factors such as access to surgeons, geographical location, the availability of resources, and individual differences in operative technique decided upon by the (neuro)surgeons. Moreover, Millie's case described at the outset of the chapter not only served as a way to compare these factors across the provinces, but also provided a narrative account of how psychosurgery was arranged and deployed on the ground. In the final chapter, several additional aspects relating to the administration of psychosurgery (e.g., patient selection, the process for obtaining consent, and post-operative rehabilitation and assessment) are discussed in detail.

Chapter 4

Making Productive Citizens: The Administration of Psychosurgery in Western Canada

In his annual report as British Columbia's (BC) Director of Mental Health Services, A.M. Gee (1953) reported that "lobotomy has been the means of securing a relief from disturbing and disabling symptoms, with consequent healthier adjustment to the life of a hospital resident" (p. T 21). He went on, however, to explain that in "other cases, after a period of intensive re-education, it has been possible to discharge some patients to their homes and gainful employment" (p. T 21). This distinction in treatment outcome—between those recipients who were discharged back into society and those whose troublesome, pre-operative comportment had improved so as to make them more amenable to hospital life—also became an important factor in identifying potential candidates for the procedure. Indeed, the separation between these two groups was evident elsewhere when Manitoba's Provincial Psychiatrist, T.A. Pincock (1948a), described the candidates that had already been selected for operation in anticipation of the commencement of a psychosurgery program: "There are about fifty cases at Selkirk now who might be helped; about 50% of them possibly rehabilitated and the other 50% becoming easier nursing problems" (para. 2). As Jack Pressman's (1998) account of American psychosurgery attested, psychiatrists in western Canada were not the only ones to prescribe psychosurgery for "dual purposes" (p. 216). Yet, classifying patients into one of these two categories for selection and post-operative evaluation raises uncomfortable questions about the purpose of psychosurgery and how it was administered.⁹⁰

⁹⁰ This is especially the case in the aftermath of the anti-psychiatric and psychiatric survivors' movements arising in the 1960s and 1970s (e.g., Chamberlin, 1995; Berlim, Fleck, & Shorter, 2003).

Although historicizing the adoption of psychosurgery as a welcomed solution amidst dire institutional realities and as a mechanism for fostering professional legitimacy offers important context (see Chapters 1 and 2), these accounts fail to adequately explain why two seemingly different groups of patients were targeted for psychosurgical intervention and how this practice became normalized. From a critical perspective, mental institutions can be understood as serving a social function wherein treatments like psychosurgery enabled the pursuit of an ulterior agenda that had more to do with control and correction than it did with therapeutic innovation or managing amidst precarious conditions. Rhetoric surrounding citizenship was used in order to legitimize the pursuit of such an agenda. For instance, a journalist reporting on early psychosurgical operations in Saskatchewan stated that “In practically all cases these people, who may have had to spend their remaining days in the institutions, are again *useful citizens*” (Dempson, 1947, para. 1, italics added). Because being a good citizen meant contributing to society in a variety of ways, including through gainful employment and the fulfillment of civic duties, those incarcerated in mental hospitals were ultimately failing to fulfil that obligation. Consequently, mental hospitals, along with other social institutions, were tasked with (re)making productive citizens who could be released and return to their expected role in society.

Within the context of the mental hospital as a social institution, psychosurgery became one of the more radical interventions applied in order to forge productive citizens. Typically, it was considered only after all other treatments had failed to restore those behaviours expected of useful citizens such as a willingness to work, an ability to care for oneself, and the capacity to engage with others. As the opening paragraph suggested, psychosurgery was prescribed for one group of patients for whom recovery of these qualities was anticipated and where discharge from hospital was considered a possibility. Yet, there was a second group of patients whose candidacy

for surgery was based not on the likelihood of discharge back into society, but on whether psychosurgery might be able to reduce the burden these patients posed. Many of these cases were seen as ‘nursing problems’ due to disruptive, destructive, and/or violent behaviour that diverted the time and resources of the hospital away from their mandate of producing productive citizens. Moreover, their recalcitrance and increasing numbers also reinforced the persistent caricature of psychiatrists as mere custodians (see Chapter 2). However, because these cases were unlikely to become productive citizens in the traditional sense, a new category of citizenship was constructed—what Matthew Gambino (2010) referred to as “institutional citizenship” (p. 8). This new category enabled the prescription of radical treatments in these cases by lowering the bar for what constituted treatment success. For instance, “For those unable to be rehabilitated for civic life,” explained Pressman (1998), they could at least be “assigned to occupational therapy and [become] productive members of the hospital’s own workforce” (p. 210). Mental hospitals, then, were actually making two different kinds of productive citizens—those who could have their full citizenship reinstated upon release and those who became more useful and amenable to hospital life.

Accordingly, this chapter offers a critical account of how the administration of psychosurgery in western Canada intersected with mental hospitals as formidable institutions of social control and with the ideals of citizenship. I argue that psychosurgery was openly administered in service of forging two kinds of productive citizens—full and institutional—and that these categories justified the treatment’s use, particularly in the latter group. To this end, I begin by drawing on the work of two influential social theorists to position the mental hospital as a social institution intended to curb and control behaviour. Here, full citizenship and institutional citizenship are described in more detail. Applying this critical framework to the administration of

psychosurgery in western Canada, I then describe how future recipients of psychosurgery were admitted to mental hospitals in the west—that is, their movement from unproductive citizen to patient. Next, I discuss how many of these patients came to reside on chronic wards on account of recalcitrant behaviour that precluded them from either type of citizenship. I then articulate how these patients became visible as potential recipients for operation and the process of evaluating their candidacy. Finally, I address the crucial role of rehabilitation and post-operative assessment in the making of productive citizens.

Mental Hospitals, Citizenship, and Productivity

The work of mid-20th century social theorists Erving Goffman and Michel Foucault offer valuable insights into thinking through mental hospitals as institutions of social control and the role of psychiatric treatments therein. This is, in part, because both became associated with the anti-psychiatry movement with the publication of works that coincided with the release of monographs by the movement's foremost proponents, Ronald Laing and Thomas Szasz. Specifically, in 1961, Goffman released *Asylums* and Foucault completed his doctoral dissertation entitled *Folie et Dérison*. Beyond the timeliness of their work on mental institutions during a period of considerable change in psychiatry, both Goffman and Foucault also extended their analyses to other social institutions such as prisons and schools (Hacking, 2004). Although Foucault himself distanced his project from Goffman's (see Dillon, 1980, as cited in Hancock & Garner, 2011), philosopher Ian Hacking (2004) has argued that the work of both theorists is best understood as “complementary” (p. 277):

Goffman analysed...the ways in which human roles are constituted in face-to-face interactions within an institutional setting, and how patterns of normality and deviance work on individual agents...Foucault's archaeologies established the preconditions for

and the mutations between successive institutional forms. His later genealogies are closer to how the historical settings work on people to form their potentialities, but never indicate how this happens in daily life. Goffman does that in rich detail, but gives no hint of how the surrounding structures themselves were constituted. (p. 288)

It is for these reasons that the works of both men are invoked in the pages that follow. Indeed, it would be almost negligent not to draw upon these two giants in the field in a critical historical analysis of how an institutional treatment like psychosurgery was applied in service of forging particular kinds of people.

Goffman (1961) classified mental hospitals as one form of what he called total institutions—“a place of residence and work where a large number of like-situated individuals, cut off from the wider society for an appreciable period of time, together lead an enclosed, formally administered round of life” (p. xiii). Total institutions functioned to address social problems by reforming individuals according to particular expectations. “In our society,” Goffman (1961) claimed, “they are the forcing houses for changing persons” (p. 12). This was accomplished through the application of a host of strategies from admission to discharge that brought about “progressive changes that occur in the beliefs that [the inmate] has concerning himself and significant others” (p. 14). For Goffman, mental hospitals were particularly “detailed and closely restrictive,” despite the fact that “this process of social control [was] in effect in all organized society” (p. 38).⁹¹

⁹¹ It is worth noting that Goffman (1961) conducted his ethnographic study at St. Elizabeths Hospital in Washington, D.C. in the mid-1950s. The well-known American lobotomist, Walter Freeman, worked as a neuropathologist at the same hospital in the 1920s and 1930s. In the mid-1940s, Freeman and his colleague, James Watts, performed a series of lobotomies at the hospital (El-Hai, 2005). Eventually more than 200 individuals at the hospital underwent psychosurgery (Gambino, 2010). Surely, then, Goffman

For Michel Foucault (1979), mental hospitals—like prisons and schools—became places in which scientific knowledge rendered patients individually visible, enabling them to be “described, judged, measured, [and] compared with others” (p. 191). This task was enabled by the rise of the human sciences in the 18th century alongside the emergence of a new form of power. Superseding sovereign power, disciplinary power was more subtle and pervasive; for instance, drawing on patients themselves to observe and regulate their own behaviour. Tactics of disciplinary power—such as surveillance and quantitative comparison against an established norm—were applied in order to forge “docile bodies—[who were] calculable, manageable, self-monitoring—the very sorts of people needed as a workforce for 19th-century capitalism’s new industrial machine” (Miller, 2008, p. 254). Into the 20th century, mental hospitals remained responsible for restoring a person’s social utility through corrective action thereby creating docile bodies that were productive and compliant. Indeed, “[t]he disciplines,” Foucault (1979) argued, “function increasingly as techniques for making useful individuals” (p. 211).

Mental hospitals, like schools and prisons, were able to shape the individual by employing what Foucault (1982) called “dividing practices...[where] [t]he subject is either divided inside himself or divided from others. This process objectivizes him. Examples are the mad and the sane, the sick and the healthy, the criminals and the ‘good boys’” (p. 777-778). These practices ultimately served to separate—or exclude—individuals from wider society, which effectively branded them as abnormal and in need of examination and correction. In effect, mental hospitals were the places that incarcerated “a series of others who represent a

(1961) would have encountered patients who had received psychosurgery and other somatic treatments. Consequently, Goffman’s observations about mental hospitals can be seen as both historical evidence and sociological theory.

danger to the body of society and must be excluded, studied, observed and treated if and before they can be readmitted to society as normalized citizens” (Peters & Besley, 2014, p. 102).

Bashford and Strange (2003), in the introduction to their edited volume examining different sites of exclusion, described it this way: “The confinement of people deemed to be dangerous or undesirable provided governable spaces in which to shape captives’ subjectivities. Individuals placed in reformatories or asylums and given new identities, such as ‘pre-delinquent’ or ‘psychiatric case’, were there to be worked on” (p. 12). Thus, social institutions—such as the mental hospital—used dividing practices to isolate individuals from the outside world in order to control and correct behaviours that precluded them from fulfilling the expectations of civic life.⁹²

Although hospital superintendents and administrators in western Canada often framed their motivations in therapeutic or administrative terms (see Chapters 1 and 2), the existence of an alternative social and moral agenda was readily apparent. “It is the task of the [mental] hospital,” explained Saskatchewan’s Commissioner of Mental Services in his annual report, “to assist [patients] over this difficult period so that they may return to their homes as *useful and productive citizens*. The hospital is a specialized community where people are helped to develop attitudes and understanding essential to social living” (McKerracher, 1951b, p. 33, italics added). The superintendent at Selkirk similarly stated that “The re-establishment of patients into *normal* economic and social activities is the primary function of the Hospital” (E. Johnson, 1946, p. 203, italics added). Even the move towards preventative and community-oriented care in the mid-20th

⁹² It is worth noting that both Goffman and Foucault have “been criticized for the distanced and impersonal accounts they give of what are not simply processes of social control, but are instead horrific human experiences” (Malacrida, 2005, p. 535). Although this dissertation project is concerned primarily with psychiatric practices and institutional discourse, other scholars have engaged more readily with patient experiences (e.g., Dyck, 2013; Malacrida, 2005, 2012).

century was framed in this manner. Accordingly, Jackson (1942) explained that psychiatric clinics and wards in general hospitals were advantageous because they “keep these people in their own communities as *useful citizens* instead of waiting for complete breakdown and the necessity for institutional care” (Jackson, 1942, p. 218, italics added).

The connection between mental hospitals and their role in forming productive persons can, in part, be understood as a “citizenship project,” which Rose and Novas (2005) defined as the “ways in which authorities thought about (some) individuals as potential citizens, and the ways in which they tried to act upon them” (p. 230). In Scull’s (1991) analysis of the relationship between the history of psychiatry and social control, it is evident that this ‘project’ was alive and well in mental hospitals from their inception:

It was the utopian dream of the founding fathers of Victorian asylumdom that they possessed the untrammelled ability to impose their values and norms on the mad, the capacity to inculcate a sufficient measure of moral discipline and self-control into the lunatic to allow their reabsorption into the social order as fully rehabilitated and re-programmed citizens. (p. 155)

Likewise, this ‘project’ remained at the forefront well into the 20th century. In Gambino’s (2010) examination of St. Elizabeths Hospital in Washington, D.C., for instance, he argued that “American psychiatrists in the first half of the twentieth century sought to restore mentally-distressed men and women to proper citizenship” (p. 2). The notion that individuals needed to have their citizenship reestablished implied that it had been lost—or, more precisely in the case of the mentally ill, revoked. Indeed, “The ‘dangerous’[or the abnormal] became those who did not deserve, or those who could not be trusted with, the freedoms that responsible and healthy citizens enjoyed” (Bashford & Strange, 2003, p. 3).

Appreciating what it was that mental hospitals were tasked with restoring necessitates an understanding of what constitutes ‘productive’ or ‘useful’ citizenship. Bellamy (2008) identified three aspects deserving of consideration: political membership, rights, and participation. One way in which these three components can be seen as interrelated was described by Mooney (2009): “Citizenship is an expression of the relationship between an individual in possession of rights, and the community, to which that individual has responsibilities, duties, and obligations – and which, of course, grants those rights” (p. 149). Entrance into a mental hospital, then, branded a person as incapable of fulfilling their responsibilities to society. As a consequence, these individuals had many of their legal and political rights suspended—such as their personal freedom, the expectation and privilege of civic engagement, and, in some cases, criminal culpability (Gambino, 2010). Goffman (1961) explained it this way: “the prepatient starts out with at least a portion of the rights, liberties, and satisfactions of the civilian and ends up on a psychiatric ward stripped of almost everything” (p. 140). Moreover, “citizenship encompasses an array of virtues and aspirations that are closely allied to our understanding of mental health—a belief in the value of work, a commitment to stable domestic life, [and] a dedication to public order” (Gambino, 2010, p. 6). Thus, being a useful and productive citizen had just as much to do with legal rights and freedoms as it did with fulfilling societal expectations relating to labour and social and familial norms.

Labour was a particularly salient aspect of citizenship central to the mandate of mental hospitals. Foucault (1988) traced the origins of the relationship between the hospital and labour to the mid-17th century when the insane, poor, sick, and criminal came to be confined together in vast institutions:

Before having the medical meaning we give it, or that at least we like to suppose it has, confinement was required by something quite different from any concern with curing the sick. What made it necessary was an imperative of labor. (p. 46)

While the importance of labour was chiefly a moral issue for Foucault, there was also an inextricable link with economic class and social responsibility. Not only did contemporary religious rhetoric surrounding the dangers of sloth—one of the great biblical sins—position labour as an antidote to idleness, “an implicit system of obligation was [also] established” between those who had been confined “at the expense of the nation” and their reciprocal responsibility to work (p. 48). While the poor were unemployed yet capable of work, the insane were implicated “in the proscription of idleness... [because] they distinguished themselves by their inability to work and to follow the rhythms of collective life” (p. 57-58). Consequently, institutional labour, such as occupational therapy (OT), was instituted not only as a way to correct idleness, but also in service of institutions who were largely self-sustaining (McCoy, 2009). “Although the nature of these tasks derives from the working needs of the establishment,” Goffman (1961) asserted, “the claim presented to the patient is that these tasks will help him to relearn to live in society and that his capacity and willingness to handle them will be taken as diagnostic evidence of improvement” (p. 90). The emphasis on engagement within the hospital community was indeed rooted in the belief that “a patient’s ability to function within the hospital served as an index of how well he or she might be able to perform on the outside” (Gambino, 2010, p. 120). As such, participation in labour—whether in organized OT programs or engaging in other hospital routines—was both curative and indicative of rehabilitation.

With work being an integral avenue for making productive citizens and an indication of recovery, what of those who were unable to work or engage in other citizenship-restoring

initiatives required as part of institutional life? In the case of penitentiaries—another social institution with its origins in Foucault’s (1988) ‘great confinement’—McCoy (2009) explained that “A prisoner’s relationship to the labor regime sometimes strongly determined his or her experience of confinement. For the sick, mentally ill, and the intellectually disabled, this experience could be one of remarkable neglect” (p. 112). This too was the case for patients in mental hospitals with chronic conditions—that is, “disease[s] of long duration and poor prognosis” (Arney & Bergen, 1983, p. 5)—who were often marginalized to the backwards of hospitals for their failure to engage in ward work or OT, engage in the routines necessary to care for themselves in hospital, or on account of troublesome behaviour that disrupted the efficient functioning of the institution (e.g., Brandon Hospital for Mental Diseases, n.d.). Ultimately, these patients did not to embody the docility necessary for intensive treatment in acute wards let alone for discharge back into wider society as full citizens.

The growing number of patients with chronic conditions, then, suggested that mental hospitals were failing to fulfil their mandate of making productive citizens.⁹³ In response, an alternative category for what it meant to be a productive citizen within the walls of the hospital was constructed. Gambino (2010) referred to this as “institutional citizenship,” which “denoted a degree of social adjustment appropriate for the limited environment of the hospital but inadequate for full civic autonomy and the freedom it entailed” (p. 8). Indeed, BC’s R.L. Whitman (1948) invoked the notion of citizenship in the context of the institution when he proclaimed that “The transformation of a man, who has hitherto been a caged animal virtually for years on end, into a useful, pleasant *hospital citizen*, is in itself no mean therapeutic

⁹³ This was all the more threatening in the context of psychiatry’s struggle for professional recognition described in Chapter 2.

accomplishment” (Whitman, 1948, p. 420, italics added). In contrast to full citizens who were able and willing to fulfill their social and economic responsibilities to society, being a productive institutional citizen included requiring less physical restraint and/or seclusion (e.g., Crease, 1946b; Lindsay, 1951; R.R. MacLean, 1950a), the ability to maintain personal habits concerning cleanliness and appearance (e.g., A.E. Davidson, 1951b; S. Schultz, 1944c), contribute to the work of the hospital (e.g., Lindsay, 1951), and be amenable to other forms of treatment like psychotherapy (e.g., Weil, 1946b). By broadening what constituted treatment success in instances where discharge was unlikely, institutional citizenship enabled psychiatrists to demonstrate that the mental hospital was still meeting its mandate to control and correct behaviour, and, where possible, returning individuals to society as full citizens.⁹⁴

With mental hospitals in the business of making productive citizens—whether full or institutional—the somatic therapies were among the corrective strategies employed to fulfill their obligation to society. Electroshock therapy (ECT), for instance, was applied in the western provinces in service of forging both variants of citizenship. For instance, the superintendent at Brandon stated that “There is little doubt of the value of electric shock in chronic cases; several patients were discharged while several others showed a better level of hospital adjustment” (S. Schultz, 1950b, p. 168). As the opening paragraph of this chapter demonstrated, psychosurgery was also prescribed and evaluated in similar ways. Such a distinction was evident when a

⁹⁴ Of course, the notion that one could be a productive ‘citizen’ while still incarcerated was paradoxical since patients retained none of the rights and freedoms entrusted to those with full citizenship who were living and working beyond the walls of the mental hospital. Nevertheless, these two categories were openly invoked when prescribing treatment and evaluating its efficacy. Thus, while the term ‘institutional citizenship’ will be employed throughout the remainder of the chapter, its use reflects psychiatric discourse at the time.

physician from Quebec reasoned that at least those who were not able to leave the hospital after receiving a lobotomy would “require less supervision, can be mixed with other patients and participate in [the] work” of the hospital (Charest, 1945, as cited by Perreault, 2012, p. 212).⁹⁵ Having two categories of citizenship also enabled psychiatrists to justify psychosurgery’s use on more than the group of patients for whom recovery and discharge seemed probable. If psychosurgery could reduce the burden posed by troublesome patients—both in terms of the strain placed on hospital operations and even protect the ambitions of psychiatrists—then it was considered a legitimate avenue for treatment once all other options had been attempted.

Admission to a Western Canadian Mental Hospital

Nearly all patients who would eventually undergo psychosurgical intervention in western Canada were initially admitted to a provincial mental hospital. As such, it is prudent to briefly describe the process that moved these individuals from provincial citizens to the lesser status of mental patient. In their monograph, Dyck and Deighton (2017) emphasized the ways in which individuals were “rendered subcitizens and at times subhumans, robbed of basic rights [up]on entering the Weyburn Mental Hospital” (p. 54). For Foucault (1979), entrance into a social institution like the mental hospital also marked the beginning of “a regular observation that placed the patient in a situation of almost perpetual examination” (p. 186).

Achieving admission into a provincial mental hospital could be accomplished involuntarily (through legal or medical means) or voluntarily. The legal route to involuntary commitment involved the issuing of an order or warrant after “a complaint [was] made to the police by relatives or friends of the patient, or by a physician or a person who has observed the

⁹⁵ My translation of the following: “Ils requièrent moins de surveillance, peuvent se mêler aux autres patients et participer aux travaux” (Charest, 1945, p. 1531-1532)” (Perreault, 2012, p. 212).

patient” (R.R. MacLean, n.d., p. 3; McKerracher, 1949a; Pincock, 1950a). This approach was typically intended for individuals requiring immediate hospitalization for the safety of themselves or others and involved assessment by medical professionals (R.R. MacLean, n.d.; Pincock, 1950a). The second way in which an individual could be involuntarily admitted was through medical certificates submitted to a hospital superintendent for consideration. This approach was classified in Manitoba as “general admission” whereby “[r]elatives or friends of a person believed to be in need of treatment...may bring him kindly and without using undue force and make written application for his admission to the superintendent of these hospitals” (Pincock, 1950a, p. 1). In most provinces, two medical certificates were to be completed by physicians who separately assessed an individual and deemed them to be “of unsound mind” and felt that it would be “expedient for the patient’s welfare that he or she be sent to a Mental Hospital” (R.R. MacLean, n.d., p. 5; A.E. Davidson, 1951a; Pincock, 1950a). McKerracher (1949a) explained that, in these cases in Saskatchewan, “the Superintendent can retain the patient in hospital as long as he sees fit...This applies to about 90% of our admissions” (p. 1). Of these two means of involuntary admission, hospital superintendents preferred the medical avenue to the legal one. In Saskatchewan, for instance, McKerracher (1949a) explained his distaste for the legal approach on account of “magistrates [being] particularly inept” (p. 1). As such, the province’s *Mental Hygiene Act* was amended accordingly in 1950 to reflect the opinion that “it is a medical rather than a legal decision whether an individual requires care and treatment in an institution” (McKerracher, 1952, p. 72).

Voluntary admission was the third way in which a person could gain access to a mental hospital (e.g., A.E. Davidson, 1951a).⁹⁶ R.R. MacLean (n.d.) explained that this route could only be pursued by individuals “capable of appreciating the undertaking of applying for admission to a Mental Hospital” (p. 5). And, it was the superintendent who made the decision as to whether a person should be admitted or not (Pincock, 1950a). Briefly preserving their right to freedom as a provincial citizen, patients admitted voluntarily in some provinces were able to rescind their request and be released within the first five days if they changed their minds (e.g., R.R. MacLean, n.d.; Dyck & Deighton, 2017).

After gaining entry to a provincial mental hospital, new patients were subjected to careful examination. Foucault (1979) described such a process as one that “places individuals in a field of surveillance [and] also situates them in a network of writing; it engages them in a whole mass of documents that capture and fix them” (p. 189). Goffman (1961), on the other hand, understood this process as follows:

Admission procedures might better be called ‘trimming’ or ‘programming’ because in thus being squared away the new arrival allows himself to be shaped and coded into an object that can be fed into the administrative machinery of the establishment, to be worked on smoothly by routine operations. (p. 16)

The process generally began with a physiological exam that included “Routine Blood Tests, Urinalysis, X-Ray, Examinations of the Chest, and Spinal Fluid Tests” (R.R. MacLean, 1948, p. 96; Crease, 1947). In Alberta, this also consisted of “a detailed physical description of the patient...recorded on the nursing admission notes” (“Changes in psychiatric treatment,” ca.

⁹⁶ Interestingly, voluntary admission had not always been possible. In Saskatchewan, for example, it was only in 1922 that these types of admissions were accepted (Dyck & Deighton, 2017).

1986, p. 11). Instructions on how to care for new patients in Saskatchewan indicated that “The bath and shampoo on admission furnish[ed] an excellent opportunity for the nurse to observe the body for evidence of bruises, rash, deformities, and abdominal distention” (“Rules and regulations,” 1945, p. 9). Beyond the physical exam, patients were interviewed for information pertaining to their personal and family histories, and psychological testing was also completed in some cases (e.g., “Changes in psychiatric treatment,” ca. 1986). Furthermore, the possessions in which a patient entered with were documented, and patients were given hospital issued clothing (e.g., “Provincial Mental Hospital policy manual,” ca. 1960; “Rules and regulations,” 1945). Among the items provided to new female patients in Ponoka, for instance, were two pairs of shoes, a coat appropriate for the season, two sets of undergarments, and various personal toiletries (“Suggested list of clothing,” ca. 1948-58).

Following these admission procedures, patients were often housed in an admission or acute ward where they were initially observed (e.g., S. Schultz, 1943). The superintendent at Brandon explained the rationale for this in the following way: “The practice of commencing treatment immediately after admission is not a sound one. In many cases it seems wiser to have the patient under observation for a reasonable period of time before making any decision as to treatment” (S. Schultz, 1943, p. 157). In BC, “during the week following admission, a medical investigation and psychiatric assessment of each patient’s condition [was] undertaken by his attending doctor with the aid of the nursing, psychology, and social-service personnel” (McNair, 1953, p. T 35-T 36). During this initial period, nurses often played an important role in surveilling patients when physicians were not present: “Medical men rely on the reports of nurses regarding observations which aid them to draw conclusions in diagnosing and treatment” (Campbell, 1946b, p. 1). As such, patients were encouraged to “talk in order that to some degree

the nature of the mental content can be ascertained” (“Rules and regulations,” 1945, p. 9). In the event that a new patient was “violent and resistive,” they were to be “secluded for a short period” in hopes that the behaviour would diminish (“Rules and regulations,” 1945, p. 9).

The process of diagnosing and prescribing particular treatments for the newly admitted tended to occur at regularly scheduled hospital or staff conferences. In BC, for example, “Ward rounds [were] held each week...to discuss the admissions of the week before and plan the treatment programme. These conferences [were] attended by the medical staff, and also by representatives of the nursing, occupational-therapy, and social-service departments” (McNair, 1953, p. T 36). A similar process occurred in Alberta where “Staff conferences were held twice a week... [when] some six to ten cases were reviewed, and recommendations recorded, as well as diagnoses made” (R.R. MacLean, 1945, p. 114). Likewise, at the hospital in Brandon, “All patients [were] presented in staff conference following admission for diagnosis and treatment, for progress reports and for discharge” (S. Schultz, 1951, p. 161). In order to render accurate diagnoses and decide upon appropriate treatment plans, patients were often expected to attend these conferences. Directives were provided to the staff for ensuring patients were adequately prepared for them:

When a Staff member is posted to escort patients to Diagnostic Conference, it is her responsibility to assist the patients with their personal hygiene and to see that they attend Conference well groomed and attractively dressed in their personal clothing. (“Provincial Mental Hospital policy manual,” ca. 1960, p. 6)

After the details of each case were presented, the patient was interviewed, supporting documentation reviewed, and diagnoses were made in consultation with those physicians present on that day (e.g., Brandon Hospital for Mental Diseases, n.d.). Subsequently, “Treatment for all

patients was instituted as soon as possible,” explained R.R. MacLean (1950b), “and this was from necessity individualized as to the patients’ needs. The majority of patients had a variety of forms of treatment” (p. 114).

Moving from an Acute Ward to a Chronic Ward

Most patients—including those who would become future recipients of psychosurgery—were initially housed on reception or acute wards. As Lawson (1951b) explained, “every patient is to be considered initially” among those patients “who can be returned to the community in a short time” (p. 23). These individuals were often deliberately separated from those who had been in hospital for longer periods of time. “The male admitting ward has been segregated,” reported Weyburn’s superintendent, A.R. Coulter (1950), because “it is felt that this will be beneficial to the new patients who thus will not come into contact with older chronic patients who tend to paint a gloomy prognosis as far as staying in the Hospital is concerned” (p. 39-40). As acute patients, one could expect to be the beneficiary of concentrated treatment efforts intended to help expedite recuperation in anticipation of discharge. At Selkirk, for instance, acute cases received “intensive therapy” using a variety of means including narcoanalysis, psychotherapy, and “insulin and electro-shock therapy for acute cases of Schizophrenia and Manic Depressive psychoses” (E. Johnson, 1947, p. 214-215). A similar approach to acute care was taken at the Crease Clinic in BC, where patients could stay for up to four months receiving short-term treatment. There “a very active treatment programme [was] necessary to ensure the patients [received the] full benefit of their hospitalization” (A.E. Davidson, 1952a, p. Q 28). Likewise, Alberta’s R.R. MacLean (1951) stated that “Full emphasis was placed on treatment services with the aim of returning our patients to a productive life as citizens of the Province” (p. 132). Essentially, as the superintendent at North Battleford articulated, these efforts reflected the belief

that “the majority of patients who leave hospital do so in a matter of weeks rather than years” (Lawson, 1951b, p. 23).

Given the attention afforded to acute cases, it is not surprising that chronic patients were rarely the priority for hospital administrators. As such, when the superintendent at Selkirk reported that recent increases in staff enabled an improvement in the “Thorough care for acute patients and adequate care for chronic patients,” it is unlikely that such a statement was problematized by readers of his annual report (E. Johnson, 1946, p. 203). Moreover, the historical dearth of treatment provided to chronic cases was notable in Le Bourdais’s (1947b) account of initiatives underway at Essondale:

With increased medical and nursing staff it was possible to use modern methods of treatment more fully than during previous years. Not only was treatment being provided for newly admitted patients, but for the first time an attack was being planned on the hitherto hopeless backwards. (p. 40-41)

Consequently, these wards were not desirable places to be; rather, as Manitoba’s Provincial Psychiatrist explained one year, “There is much to be desired in the quality of the services rendered, especially in the comforts provided for the chronic patient” (Pincock, 1946, p. 175). It is no wonder administrators like Coulter (1950) wanted to keep acute patients separate from those with chronic conditions, lest the latter articulate the situation in which they found themselves.

When individuals failed to respond to treatment efforts, they tended to be reclassified as chronic cases and transferred to continuing or refractory wards (i.e., backwards). For instance, in the case notes of a patient who had been repeatedly admitted to the hospital in Brandon, a transfer note during one of her stays indicated that “The patient was today transferred to the

Main Building due to chronicity of the case and lack of accommodation in the Psychiatric Institute” (Brandon Hospital for Mental Diseases, n.d.).⁹⁷ The recalcitrance of those who were not moving towards recovery—that is, towards either form of productive citizenship—were arguably penalized by being exiled to chronic wards. Where initially acute patients were purposefully separated from chronic cases, their “demotion through messing up brings old-time inmates into contact with new inmates in unprivileged positions, assuring a flow of information concerning the system and the people in it” (Goffman, 1961, p. 54).

Being unresponsive to treatment—necessitating transfer to a new building or ward—was often conceptualized in terms of intractable symptoms and/or the presence of disruptive behaviour. In the case of another female patient housed at Brandon, a physician noted that “She has had several courses of [ECT] but these have not helped her. Her mental condition is poor. She is impulsive and difficult to handle and constantly delusional” (Brandon Hospital for Mental Diseases, n.d.). Disruptive behaviour was especially challenging for hospital staff with these patients often requiring restraint. Describing these cases as part of a response to criticisms leveled by Le Bourdais (1947a, 1947b, 1947c, 1947d) in his exposé mentioned in Chapter 1, officials in Manitoba stated:

The simple fact is that...certain patients will tear their clothes in frenzy because they imagine they feel things crawling over their skins, or befoul their clothes with no self-control. People who cry “Shame” at our mental hospitals don’t realize the difficulties the

⁹⁷ Due to privacy legislation and the terms of my research agreement with the Archives of Manitoba and the Selkirk Mental Health Centre (where these files are housed), pagination and individual information that would locate this information within a particular patient file is not provided. Only the larger collection information can be cited here.

medical staff, the nursing staff and the attendant staff must face; they don't realize what happens in some cases of mental illness. ("The mental hospitals of Manitoba," 1947, p. 9)

Along with these cases proving burdensome for hospital administrators in terms of the resources needed to house and manage them, chronic cases were also obstructing the goals of the mental hospital. Not only were these patients far from the possibility of discharge back to civilian life as useful citizens, many were also unable to maintain the compliant behaviour expected of institutional citizens. It is here, among the most recalcitrant chronically ill cases, that patients tended to be identified as possible candidates for psychosurgery.

Selecting and Assessing Candidates for Psychosurgery

Among the masses of chronic patients housed in overcrowded wards, potential recipients of psychosurgery were identified in several ways including at follow-up hospital conferences where patient progress was evaluated (e.g., S. Schultz, 1953), when individual "doctors of the attending staff...submit[ted] suggestions regarding suitable cases for leucotomy" (Turnbull & Davidson, 1949, p. 131), and, less commonly, when relatives inquired about the treatment (e.g., Crease, 1946c). Once potential cases were pinpointed, they were further evaluated at special staff conferences where the final determination was made whether to proceed with an operation or not. At Essondale Hospital, "cases [were] reviewed by a special Leucotomy Board comprised of three of the senior staff and the attending psychiatrist" (Turnbull & Davidson, 1949, p. 131). At the hospital in Brandon, S. Schultz (1950a) explained that patients identified as potential recipients were observed for two weeks in advance of their case being reviewed at a staff conference. "[A] complete history including physical examination [and] X-ray" were obtained in advance (S. Schultz, 1950a, p. 1). In Manitoba, a unanimous decision was required at these conferences in order to proceed with the surgery (S. Schultz, 1950a). The importance of a

group—rather than individual physicians—being responsible for assessing cases and making decisions was also mentioned in BC (Crease, 1946c).

Patient Selection

Because chronic cases were generally targeted for psychosurgical intervention in the western provinces, recipients tended to have already undergone a host of treatments.⁹⁸ In Alberta, for instance, D. Smith (ca. 1955) reported that lobotomies were conducted on those “for whom other types of treatment ha[d] failed to produce improvement” (para. 13). Similarly, a report on the first 80 patients operated on in Manitoba confirmed that “The operation was not proposed until all other available therapies, mainly, insulin coma and electro-shock had been thoroughly tried and considered ineffective” (Lindsay, 1951, p. 230). In Saskatchewan, T.C. Douglas reportedly stated that “a frontal lobotomy is employed only when a favorable outcome is not anticipated under more conservative measures” (Dempson, 1947, para. 6).

Consequently, the earliest chronic patients treated were often those who were considered to be the most hopeless and disruptive cases. These patients were made most visible by virtue of behaviour that was interpreted as resistance to institutional citizenship, particularly in terms of their failure to “adjust to hospital routine” (A.E. Davidson, 1948, p. 417). In a monthly report sent to BC’s Deputy Provincial Secretary, Crease (1945c) described the first recipient of psychosurgery in the province:

This patient has been an extremely troublesome paranoid case, requiring hours and hours of mechanical and nursing staff to care for the destruction and smearing of her room. She

⁹⁸ The use of psychosurgery as a last resort has been identified by most scholars who have studied this treatment (e.g., Collins & Stam, 2014; Ploumpidis, Tsiamis, & Poulakou-Rebelakou, 2015; Pressman, 1998; Zalashik & Davidovitch, 2006).

has been actively and aggressively amorous toward the male staff. She was chosen as the first case on account of offering such a poor prognosis and taking so much of the time of the staff and lowering the standard of any ward on which she was domiciled. (para. 2)

In Saskatchewan, minutes from a conference held in April of 1947 stated that “It was...the opinion of the group that at the present time, the operation should be performed only on the unmanageable type of patient whose illness has been prolonged” (“Conference of the staff,” 1947, p. 1). Later that fall, it was further agreed that “leukotomy had a definite use in the case of the tense, impulsive patient who could be made an easier nursing problem” (“Minutes of the psychiatric conference,” 1947, p. 5). Similarly, reporting on the first 23 patients operated on in Manitoba, S. Schultz (1944c) explained that “Patients selected for this operation were those showing behaviour patterns emphasizing panic, destructiveness and rage reactions. Many of these patients were violent, dangerous and extremely untidy in their personal habits and clothing” (p. 177). The situation was much the same in Alberta where a staff member recalled that “Lobotomies were done on intractable patients” (Jubilee Historical Committee, ca. 1985).⁹⁹ Specifically, those with “definite and troublesome psychoses with grossly abnormal behaviour” (Kinnear, 1985, p. 2) as well as those who were “extremely agitated” tended to be identified as candidates (“Historical notes – A.H.P.,” n.d., p. 28).

Eventually, other chronic patients were increasingly considered if they “presented symptoms which it was felt operation would remove and thus make possible rehabilitation back

⁹⁹ The Jubilee Historical Committee (ca. 1985) records cited here consist of a series of interviews collected from former staff members by a committee who wrote a history of the Ponoka Mental Hospital (see Johnson et al., 1986). Because the process by which these were collected is unclear, I have opted to cite the questionnaires collectively as a group and use relevant excerpts while maintaining the anonymity of the original contributors.

to their own environments” (A.E. Davidson, 1948, p. 417). In other words, those for whom full citizenship might be a possibility upon discharge were assessed as possible candidates based on more than the presence of disruptive behaviour. Rather, a number of indicators emerged from the evaluation of early post-operative results enabling physicians to predict whether or not they “were justified in expecting a favourable result” (Lindsay, 1951, p. 230). For instance, a patient’s personality before they became mentally ill became an important predictor of post-operative success (Lindsay, 1951). “If the patient has been ambitious,” explained A.E. Davidson (1948), “and has displayed good initiative and if his work adjustment has been satisfactory, the prognosis is much more favorable” (p. 417). Said differently, those who once displayed certain qualities of a productive citizen—namely, those with direction and the ability to engage in labour—were considered more likely to return to this state after operation. Additionally, the presence of affective symptoms was considered to be most amenable to operation because, as Lindsay (1951) explained, “leucotomy is supposed to be effective because it decreases the tension, agitation and fear” (p. 230). This meant that certain subtypes of schizophrenia—the disorder most prevalent among chronically ill populations (Braslow, 1997; Grob, 1994)—were more amenable to operation than others. In effect, patients who had become indifferent or experienced “emotional flattening and impairment of conceptual thinking...respond[ed] very poorly to leucotomy” (A.E. Davidson, 1948, p. 418-419).¹⁰⁰ Moreover, a patient’s familial situation was also of interest in

¹⁰⁰ While patients with schizophrenia—particularly those with “evidence of emotional tension”—were most often selected, this was typically because they were among those who had not improved after receiving other forms of treatment (A.E. Davidson, 1948, p. 418). Because patients with affective diagnoses tended to respond to other treatments such as ECT (e.g., R.R. MacLean, 1945; Pincock, 1942d; Turnbull & Davidson, 1949), they were referred less frequently as potential candidates for psychosurgery. In many of these cases, A.E. Davidson (1948) explained, “one does not feel justified in subjecting these patients to leucotomy” (p. 418). Still, the overrepresentation of schizophrenia diagnoses among recipients

assessing a person's post-operative prognosis. Specifically, where adequate social support was improbable, "leucotomy is of questionable value unless our object in operation is only to try and improve hospital adjustment" (A.E. Davidson, 1948, p. 418).

There were also several conditions—such as mental defect and psychopathy—identified as less suitable for psychosurgical intervention.¹⁰¹ In his report to the Provincial Psychiatrist concerning his attendance at a conference in the United States, H.S. Atkinson (1954)—superintendent at Manitoba's School for Mentally Defective Persons—reported that "psychosurgery was not favored in the mentally retarded" (p. 2). Yet, years earlier, Atkinson (1948) had articulated his interest in pursuing this avenue for treatment:

We actively have been considering such procedures at this institution and our first case was referred to Dr. Pincock February last. As a good many things have to be considered carefully there has been considerable correspondence with the relatives and Dr. Pincock, in this connection. We feel that arrangements will soon be completed for us to attempt our first operation and with every contingency carefully considered. (para. 1)

While it is not clear the extent to which Atkinson pursued this line of treatment, there were nine operations of the 311 conducted at Brandon where the diagnosis of mentally defective—with or without a comorbid condition—was listed ("Brandon Mental Hospital leucotomy service," n.d.).

Moreover, in Alberta, there were patients who reportedly underwent sexual sterilization and

of psychosurgery is troubling and requires further exploration. Recently, Collins (2018) examined this issue in terms of how patient selection, operative techniques, and responsibility for outcomes were renegotiated during the 1940s and 1950s to justify the treatment's continued use on these patients.

¹⁰¹ Interestingly, physicians at the Ontario Hospitals were provided with more robust contraindications than seemed to be the case in Western Canada. For instance, A.B. Stokes (1948) instructed that patients with the following conditions should not be operated upon: "psychopaths, alcoholics and drug addicts, homosexuals and sexual deviates, [and] psychosis [with] organic cerebral pathology" (p. 1).

received a lobotomy, though the extent to which this occurred is unclear (H. Stam, personal communication, May 2013).¹⁰²

Those diagnosed with psychopathy, or psychopathic personality, were also viewed as less than ideal candidates for operation. BC's A.E. Davidson (1948) explained why these cases were generally precluded as contenders for the treatment:

In these individuals the operation brings about a reduction in their restraining capacity and the individual tends to act in an uninhibited, unrestrained manner and is liable to become a definite menace to society. Patients, who in their prespsychotic personality, have exhibited streaks of cruelty, avoidance of responsibility and erratic behavior, are poor candidates for operation. (p. 418)

In other words, operating on cases of psychopathy was counterproductive to producing docile and productive citizens. Still, at least six operations of the 311 completed at Brandon were conducted on patients diagnosed with psychopathic personalities—with or without a comorbid condition (“Brandon Mental Hospital leucotomy service,” n.d.). Additionally, in an article published in the *Alberta Medical Bulletin* concerning new developments in psychiatry, A.D. MacPherson (1948) explained that “It has been used on individuals with chronically bad behaviour or antisocial tendencies with variable results” (p. 10).

Although the vast majority of patients operated on in the western provinces seem to have been chronic cases, an initiative to treat acute cases was introduced in Manitoba in the early 1950s. In 1951, E. Johnson (1952) asserted that an initial “back-log” of 110 patients who had been waiting for surgery when the program began at Selkirk several years prior had been taken

¹⁰² See the work of scholars such as Dyck (2013), Kurbegovic (2019), Malacrida (2015), McLaren (1990), and Moss, Stam, and Kattevilder (2013) for more information on sexual sterilization in Western Canada.

care of. Recalling the opening paragraph of this chapter, Pincock (1948a) had once stated that those awaiting psychosurgery at Selkirk were equally composed of troublesome cases and those who might recover. Consequently, E. Johnson (1952) stated a new direction for the Selkirk program whereby the focus would be on “new admissions in whom the symptoms are indicative of a satisfactory response to the operation” (p. 162). In 1952, S. Schultz (1953) credited “the extensive research work carried out in the hospital” for this shift in focus (p. 175). By 1955, the treatment of both chronic and acute patients had become normative at Brandon:

Leucotomies are now undertaken at an earlier stage in the patient’s psychosis when tension, anxiety and apprehension are the prominent features, and other treatments, after a fair trial, have failed to alleviate these symptoms. However, a number are still being performed on the long standing chronic cases. Marked improvements in the manageability of these patients are frequently achieved. (S. Schultz, 1956, p. 179)

Of course, it was hoped that patients treated earlier in their illness would be more likely to be discharged from hospital—thus, returning to their civic responsibilities—rather than eventually being reclassified as chronic patients. Treating recently admitted—that is, acute—cases was not unheard of in the literature. Indeed, “Superior results are obtained,” claimed Walter Freeman (1953), the foremost American lobotomist, “in patients who have not been hospitalized for a prolonged period” (p. 300). Accordingly, Alberta’s A.D. MacPherson (1948) suggested that operation “should not be delayed until deterioration has set in” (p. 10).

On the whole, identifying which chronic patients were most appropriate for operation involved consideration of how long someone had been in hospital, their status as an acute or chronic patient, the presence of troublesome behaviour, and additional indicators that emerged over time (e.g., diagnosis). Yet, the motivation for operating on certain patients largely rested

upon what physicians hoped to achieve in terms of final outcome—discharge or hospital adjustment. While some of the provinces were less transparent in this regard, physicians and administrators in BC went so far as to divide treatment results—and accompanying statistical tables—in their annual reports into two categories:

(1) Those where we aim to obtain satisfying relief of symptoms with eventual rehabilitation of the patient, and (2) certain patients who are very disturbed and troublesome over a prolonged period of time obtain a marked improvement in their ability to adjust to ordinary hospital routine. (A.E. Davidson, 1951b, p. O 27)

Ultimately, the decisions that were made in special staff conferences concerning who should be submitted to the operation were evaluated either on the basis of a patient's likelihood to recover and take up their responsibility as fully productive citizens or whether institutional citizenship was the best that could be hoped for.

Obtaining Consent

Regardless of whether patients were deemed to be appropriate candidates in staff conferences or not, consent needed to be obtained from relatives in order for physicians to proceed with surgery. In BC, for instance, Turnbull and Davidson (1949) reported that “The relatives of selected patients are informed, and special consent obtained” (p. 131). In Saskatchewan, the minutes from a conference held in April of 1947 stated that “The unanimous opinion of the group was that permission from the relatives should be obtained if at all possible. In the event no relatives were available, authority to have the operation performed existed in the Mental Hygiene Act” (“Conference of the staff,” 1947, p. 1). While there is evidence that permission was also required in Alberta (see “Pre-operative leukotomy,” ca. 1949), little information was available pertaining to the protocol for obtaining it.

In contrast to what was found in the archival records in the other western provinces, consent was a topic of considerable discussion among administrators in Manitoba. According to S. Schultz (1950a), consent was sought before potential cases for psychosurgery were discussed at special staff conferences. This practice of contacting relatives about their assent to operation was standard procedure by at least the fall of 1944. In early October, the superintendent at Brandon sent a copy of a consent letter to the Deputy Minister of Health and Public Welfare indicating that they were already mailing out these letters to “the relatives of patients on whom we expect to perform leucotomies” (S. Schultz, 1944a, p. 1). In response, the Minister—Ivan Schultz (1944a)—proposed several noteworthy changes. Of most relevance here, he urged the superintendent not to unrealistically raise the hopes of relatives and, instead, stated that “it would be advisable to suggest that while the operation will benefit the patient it will not affect a cure in the sense of returning the patient to general social life in the community” (p. 1). A second draft of the letter provided by the superintendent clarified this point, amending the letter so it stated the following: “We feel that while treatment may not effect a complete cure, it will be beneficial to the mental health and happiness of your (relative)” (S. Schultz, 1944b, p. 2).

When patients entered the mental hospital, they forfeited—either by requisite or willingly—their right to autonomy as a marker of full citizenship on account of being deemed incompetent. Consequently, “While a person is gradually being transformed into a patient,” Goffman (1961) asserted, “a next-of-relation is gradually being transformed into a guardian” (p. 142). While the right of a guardian to make decisions on behalf of a patient was ostensibly about preserving some form of the latter’s autonomy, it was also about implicating others in decision-making for the legal and social protection of the physicians and administrators involved in their treatment. Indeed, there was practical benefit for physicians in “be[ing] able to point to the co-

operation and agreement of someone whose relationship to the patient places him above suspicion, firmly defining him as the person most likely to have the patient's personal interest at heart" (Goffman, 1961, p. 142). Yet, relatives were not generally involved in much of a patient's life in hospital after admission and even had to follow strict hospital policies concerning visitation and obtaining progress reports (e.g., "Provincial mental hospital, ca. 1960). As such, physicians were largely free to prescribe most interventions they deemed necessary without the assent of a guardian. For instance, doctors, as opposed to nurses or other hospital staff, were permitted to call for the restraint, seclusion, or sedation of a patient (e.g., "Care of the psychiatric patient," ca. 1948-1958). Emergency surgical intervention for life-saving purposes was also permissible without consent ("Minutes medical superintendents' meeting," 1954).

In the case of more experimental or invasive therapeutic interventions, physicians in the first half of the 20th century seemed to proceed with more caution. For example, Gambino (2010) found evidence in the patient records at St. Elizabeths Hospital in the 1920s that consent was obtained prior to malarial therapy. For a time after ECT was implemented in Ontario Hospitals, consent was also required (Collins, 2012). Likewise, in Manitoba, Pincock (1951b) confirmed that consent was initially required for both ECT and insulin shock; however, by the early 1950s, both had become "so recognized a form of therapy that we no longer consider it necessary to obtain the consent of the relatives before instituting it" (p. 1). In the case of psychosurgery, consent remained a requisite of operation throughout its tenure because, as Pincock explained to superintendents in the mid-1950s, the procedure was not necessary for maintenance of life, the outcome was uncertain, and it was not considered to be the only possible way in which patients could be treated ("Minutes medical superintendents' meeting," 1954).

What consent for operation entailed was less clear, however, especially in light of how ‘informed’ consent is understood today. The latter is largely a product of the second half of the 20th century and involves a more robust disclosure of risks and benefits enabling patients or their guardians to make decisions based on all relevant facts (Beauchamp, 2011). As scholars like Gavrus (2014) and Wilde (2009) have demonstrated in regard to the history of consent for surgical operations, there was considerable variation prior to the 1950s. Indeed, the information provided to guardians and the required protocol for granting consent for psychosurgery underwent a number of changes over the first decade in which it was used in Manitoba. For instance, in the consent letter sent to relatives in 1944, an absence of response was deemed adequate: “If you have any objections to this operation being performed, please let us know at once. Unless we hear from you to the contrary, we shall assume that you approve of our proceeding with the operation as planned” (S. Schultz, 1944b, p. 2). This stood in contrast to a later iteration used toward the end of the decade that required a portion of the form be returned with a signature (see Figure 4.1). Moreover, it is not possible to argue that any iterations of consent required in Manitoba constituted informed consent, especially since the mention of potential risks was not accompanied by any clarification as to what they were (e.g., S. Schultz, 1944b; Pincock, 1944a).

Although obtaining consent was a necessary formality for physicians wishing to implement psychosurgery in western Canada, it also proved to be a particularly challenging barrier in the pursuit of making productive institutional citizens. This was especially the case in instances where physicians deemed the procedure necessary, but were unable to proceed because “relatives ignore[d] correspondence...not declar[ing] their stand either for or against acceptance of the advice of the medical superintendent” or “consent to the operation [was] definitely refused

MEDICAL SUPERINTENDENT

PLEASE ADDRESS ALL
COMMUNICATION RESPECTING PATIENTS TO
THE MEDICAL SUPERINTENDENT
P.O. BOX 420

Department of Health and Public Welfare
Division of Psychiatry
Hospital for Mental Diseases

Brandon, Manitoba

We are writing to inform you that we are considering brain surgery for your relative.

This operation, known as leucotomy, consists of severing certain nerves of the brain. This procedure represents one of the latest developments in neuro-psychiatry, and is now a well established method of treatment. The procedure is not painful, as a rule, to the patient and he is out of bed within six days. In many cases, there has been improvement in the physical and mental health of the patient, and in some cases complete cure, and the method has been effective when other forms of treatment have failed.

There are certain risks in all operations, and that is why we are notifying you. Will you be good enough to sign the attached form granting permission for this operation and return same to us in the enclosed envelope.

Yours sincerely,

Stuart Schultz, M.D.
Medical Superintendent

Dr. Stuart Schultz,
Medical Superintendent,
Brandon Mental Hospital,
Brandon, Man.

Date

Dear Sir:-

I, hereby, give my consent for a leucotomy operation on my relative,
_____, at the Brandon Mental Hospital.

Name

Signed

Figure 4.1. Reproduction of a consent form used at the Brandon Hospital for Mental Diseases in the late 1940s (S. Schultz, 1949a, p. 2; Brandon Hospital for Mental Diseases, n.d.). Due to the stipulation that photographs could not be taken of restricted files at the Archives of Manitoba, the author (B.M. Collins) recreated this form in her research notes as closely as possible from the original archival version.

and resisted by the responsible relative or guardian” (Pincock, 1952, p. 1). In the summer of 1952, a letter sent by the superintendent at Brandon to the Provincial Psychiatrist articulated why a failure to obtain permission presented a considerable problem. He explained that not only were there a number of patients where psychosurgery was recommended as a last resort option, “Some of the patients are dangerous, impulsive, and there is little likelihood of discharge unless the operation is performed and if they remain here they are a menace to other patients and staff” (S. Schultz, 1952b, p. 1). Thus, while many of these patients may never regain their status as full citizens, their institutional citizenship might be salvageable if psychosurgery could proceed. While S. Schultz (1952b) recommended that “consideration should be given to legislation which would permit the medical superintendent and his staff to have legal authority to perform this operation if he considers the operation is in the best interest of the patient” (p. 1), the Minister of Health and Public Welfare initially responded asking the superintendent to raise the issue at the next superintendents’ meeting for further discussion (I. Schultz, 1952a). However, this exchange eventually precipitated a request for the Attorney-General’s legal opinion on the matter a few months later (I. Schultz, 1952b). At the end of the year, the Deputy Attorney-General responded and clarified the legal position of the province: “In the absence of any circumstances of emergency wherein the life or health of the patient is endangered, a surgeon is not justified in performing any type of surgical operation upon a mentally incompetent person without...consent” (Kay, 1952, p. 1).¹⁰³ By 1954, the matter came up again at a superintendents’ meeting, but it was expeditiously reiterated that no leucotomies would be performed without first

¹⁰³ However, Kay’s (1952) letter did indicate that there were “provisions of the Lunacy Act” in instances where “a guardian, next-of-kin, or committee of the person is not available” that would allow the appointment of a person charged with the estate of the person to act in this regard (p. 1).

obtaining consent” (“Minutes medical superintendents’ meeting,” 1954, p. 5). In the end, in the occasional instances when consent was not possible for physicians in the western provinces to obtain, they found themselves unable to circumvent legal protocol in the interest of producing better institutional citizens.

Rehabilitation and Post-Operative Assessment

After consent was secured and the decision to proceed made at a special staff conference, selected patients were submitted to additional pre-operative procedures before undergoing the operation. Then, after an initial period of intensive post-operative “aftercare” lasting one to two weeks,¹⁰⁴ recipients entered what BC’s R.L. Whitman (1948) described as the “later postoperative phase of approximately six months duration” (p. 419). Rehabilitation, which took place during that time, was considered especially important for physicians in much of western Canada. For instance, Frank Turnbull (1995), BC’s first neurosurgeon, recalled that, from the outset, “We adopted...an unusually heavy commitment for rehabilitation” (p. 235). Likewise, in the year following the first series of operations in Manitoba, the Provincial Psychiatrist reported that the surgeries “ha[ve] been followed by intensive re-education” (Pincock, 1946, p. 174). The importance placed upon rehabilitation was directly connected to the task of forging both variants of productive citizens. “Our aim is to re-educate the patient,” asserted Turnbull and Davidson (1949), “to live and act in a more acceptable manner” (p. 131). Consequently, in order to discharge patients back into society, and even for the purposes of hospital adjustment, patients needed to regain a number of basic skills and habits necessary for independence, as well as be reoriented to a variety of social expectations. This task was made both necessary and “possible

¹⁰⁴ See Chapter 3 for information concerning pre-operative procedures, the process of actually undergoing the operation, and immediate post-operative care.

by surgically induced malleability and suggestibility” (Whitman, 1948, p. 419). In effect, without intensive efforts to rehabilitate recipients of psychosurgery, they would fail to be productive:

“The majority of patients are lacking in initiative and drive following operation. If left alone they would just sit around” (Turnbull & Davidson, 1949, p. 131). Moreover, as Rackow and McGriff (1950) from Alabama noted in their article on rehabilitation after lobotomy, reprieve from “emotionally painful tensions and fears allows the re-establishment of more normal and socially acceptable thought patterns” (p. 329).

Rehabilitation was a priority in BC and Manitoba, evidenced by the physical space and personnel allocated for its execution.¹⁰⁵ For example, rehabilitation initiatives were implemented and expanded in Manitoba between 1945 and 1947 when surgeries had stopped for several years (e.g., S. Schultz, 1946, 1947b).¹⁰⁶ By the close of 1947—the year before operations began again—the superintendent at Brandon reported that “Activity therapy and re-education of leucotomy cases was placed on an organized basis by the appointment of Miss Edith Rogers as Occupational Therapy Instructor in charge of this group” (S. Schultz, 1948, p. 238). At Selkirk, Lindsay (1951) reported that leucotomy recipients were “kept in a supervised group twenty-four hours a day” and “encouraged to take part in planned occupational therapy group activities with the other post-leucotomy patients” (p. 230). While it is not clear whether a dedicated ward was established for leucotomy patients in either hospital in Manitoba, this was the case in BC at Essondale where a “special ward which can accommodate twenty-four patients” was in place by at least the late 1940s (Turnbull & Davidson, 1949, p. 131). This was presumably the female

¹⁰⁵ This is not to say that it was not important in Alberta and Saskatchewan; however, limited evidence was found to suggest rehabilitation was as central in these provinces as it was in BC and Manitoba.

¹⁰⁶ See Chapter 2 for an explanation as to why psychosurgery stopped in Manitoba for a time in the mid-1940s.

lobotomy ward mentioned in the 1953 annual report (McNair, 1953) since a male ward was opened a few years later (Caunt, 1955). In both provinces, however, the importance of segregating these patients from others in the hospital—particularly on account of their impressionable and immature behaviour following surgery—was noted by physicians early on (e.g., Crease, 1946d; Whitman, 1948). Having dedicated staff trained to work with this population was of vital importance (e.g., Lindsay, 1951; Turnbull, 1995; Turnbull & Davidson, 1949).

Whether occurring in specialized wards or not, there were similarities in what constituted rehabilitation across the western provinces. BC's Turnbull and Davidson (1949) asserted that even before patients were moved to a special ward, they were “encouraged to take an interest in their personal appearance and an attempt is made to interest them in simple tasks” (p. 131). Instructions from Alberta detailed what these early tasks should entail: “It is very necessary to re-train and re-educate these individuals- such fundamental habits as bowel and bladder control, talking, writing, bathing, cleaning teeth, dressing and eating will need re-establishing” (“Pre-operative leukotomy,” ca. 1949, p. 3). As such, a routine incorporating these basic skills necessary for independence was established at the hospital in Ponoka (“Pre-operative leukotomy,” ca. 1949). Eventually, patients were encouraged to become involved in OT and recreational opportunities (e.g., Turnbull & Davidson, 1949; “Pre-operative leukotomy,” ca. 1949). Examples of the activities and work that patients were involved in included gardening, needle work, knitting, and games (e.g., S. Schultz, 1946, 1952a; Turnbull & Davidson, 1949). Some patients also participated in psychotherapy as part of their recovery. Psychotherapy, explained A.E. Davidson (1951b), was “The main therapeutic weapon in the treatment of psychiatric disorders...[it] consists of frequent interviews, leading to the patient having a better

understanding of his problems and also helping to establish adequate interpersonal relationships between the physician and the patient” (p. O 25). Saskatchewan’s R.J. Weil (1946b) indicated that group psychotherapy further supported re-socialization for all patients preparing for discharge. To this end, in a letter sent to a physician in Chicago regarding the work at North Battleford, Weil (1946b) wrote that “It may interest you also that we have several prefrontal lobotomy patients in our Group Psychotherapy Class, and we are interested to find out what effect Group Psychotherapy will have on them” (p. 2). In BC, as well, a psychotherapy group was held in the female lobotomy ward (McNair, 1953). Moreover, the involvement of families was also encouraged during this period to further facilitate socialization and recovery, while also attempting to cultivate an environment that some patients may be feasibly discharged to (e.g., Lindsay, 1951; Turnbull & Davidson, 1949; Whitman, 1948).

Throughout the rehabilitation phase, patient behaviour and symptoms were closely monitored and regularly assessed in several of the provinces. For instance, an “after treatment” committee in BC—composed of members from different departments at the Provincial Mental Hospital—met weekly to determine the course of rehabilitation for each patient at Essondale (Crease, 1946d, p. 1). A slightly different—though no less structured—approach was taken at Brandon whereby cases were assessed in staff conference after six months, two years, and in some cases five years (Schultz & Henderson, 1959). However, in between formalized evaluation at these intervals, nurses at Brandon were tasked with quantifying changes in behaviour and symptoms on a monthly basis using a modified version of an existing tool developed in the United States (Schultz & Evans, 1953). The original version of the instrument was created by Paul Wilcox (1942) in the mid-1930s at the Gardner State Hospital in Massachusetts to accurately track the course of a patient’s illness upon institutionalization. While the original chart

was not created for use in evaluating psychosurgery recipients, it was eventually used in this capacity in the US (e.g., Schrader & Robinson, 1945). By at least the early 1950s, S. Schultz and A.L. Henderson (1959) from Brandon had modified Wilcox's instrument (see Figures 4.2 and 4.3). In addition to the behaviours listed on the original, they also added a number of psychotic, depressive, and miscellaneous symptoms relevant to patients who had undergone psychosurgery. Patients were assessed on these behaviours and symptoms before surgery—receiving a pre-leucotomy score—and after at various time intervals noted above (Schultz & Evans, 1953).¹⁰⁷

Many of the behaviours listed on Wilcox's (1942) original tool—such as “sociability,” “care of property,” and “work capacity”—were consistent with many of the qualities of what it meant to be a productive citizen (p. 874). Indeed, in providing his rationale for introducing the Gardner Behavior Chart, Wilcox stated that “Man's success or failure in his social life depends largely on his behavior. Abnormal behavior is usually the factor which warrants sending a person to a state hospital for mental disease” (p. 874). Presumably, then, considerable improvement in these behaviours meant that a patient was ready to be discharged back into society.¹⁰⁸

¹⁰⁷ Not only were a host of symptoms added to Wilcox's original 15 behaviours, scoring was also revised. Whereas the scoring system for Wilcox's (1942) chart tended to assess a behaviour—with a few minor exceptions—on a scale from 0 (None) to 4 (Extra Good), the Schultz-Henderson modification tended to score patients on those same behaviours from 3 to -3 and symptoms on one of several scales: 0 to -3, 3 to -3, or 0 to 1. Generally, scores in the negative range were indicative of deterioration (Schultz & Evans, 1953; see Figures 4.2 and 4.3 above).

¹⁰⁸ It is unclear, however, whether there was a particular score on the modified behaviour chart that signified adequate improvement to merit discharge. Although positive scores indicated improvement in the symptoms and behaviours measured (see previous footnote; Schultz & Evans, 1953), it seems that a patient's expected outcome was largely pre-determined during the patient selection phase rather than based on the results obtained using this instrument. While scores were often included in staff conferences before and after surgery for individual comparison (e.g., Brandon Hospital for Mental Diseases, n.d.), it did not appear to determine which type of citizenship a patient was expected to attain.

LEUCOTOMY REPORT SUMMARY

7/50

Leucotomy No. 000 Date of Leucotomy 00/0/51 File No. 0000

Name PATIENT, Female Diagnosis Schizophrenia, Paranoid

Note: Important notes from Monthly Reports are to be entered on the back of this sheet.

Score Number	Pre-Leuc.		Post-Leucotomy Scores									
			Monthly Scores				Semi-Annual Scores					
	1	2	1	2	3	4	5	6				
Date of Score	3.51	10.51	11.51	12.51	1.52	2.52	3.52	4.52				
Weight in pounds		160										
BEHAVIOUR												
1. Appearance	-1	1	-1	1	1	1	-1	-1				
2. Sleep	1	2	2	3	3	3	3	3				
3. Appetite	3	2	2	3	3	3	3	3				
4. Sociability	-2	1	-2	-1	-1	-1	-1	-1				
5. Activity	-2	-2	-1	-1	2	-2	-2	-2				
6. Noise	-2	-1	2	2	3	2	2	2				
7. Temper	-2	1	-1	-1	1	2	2	2				
8. Combattiveness	-1	-1	1	1	2	2	2	2				
9. Care	-2	1	1	2	-1	-1	-2	-2				
10. Entertainment	-2	2	-1	-2	2	-1	-1	-1				
11. Co-operation	1	2	-1	2	1	1	1	1				
12. Work	2	2	-1	-1	2	-1	-1	-1				
13. Initiat. (alone)	1	2	-2	-2	2	-1	-2	-2				
14. Initiat. (sup.)	1	2	-1	-1	-1	-1	-1	-1				
15. Directability	2	-2	-1	-2	1	-1	2	2				
PSYCHOTIC SYMPTOMS												
1. Hallucinations	-3	-2										
2. Delusions	-3	-2										
3. Orientation	1	2	3	2	2	2	3	3				
4. Interest	1	1	-1	-1	-1	-2	-3	-3				
5. Tension (ease)	-3	-1	1	2	2	3	2	2				
6. Reason	-2	1	2	2	2	3	2	2				
7. Concentration	-2	2	-1	-1	-1	1	-1	-1				
8. Misident.	-1	-1										
9. Flight of Ideas	-3	-1										
10. Decision	-2	2	-1	-1	-1	1	-1	-1				
SIGNS OF DEPRESSION												
1. Depression												
2. Suicidal Intent												
3. Self Accus.												
4. Apprehension	-1											
5. Evasive	-1	-1										
6. Monotone												
MISCELLANEOUS												
1. Euphoria												
2. Procrastination			-1	-1								
3. Hoarding												
4. Profanity	-1				-1	-1		-1				
5. Over-talkative	-1	-1										
6. Word Blocking												
Total Positive Score	13	26	14	20	29	24	22	22				
Total Negative Score	-37	-15	-16	-15	-7	-12	-16	-17				
Initial												

Figure 4.2. Reproduction of a ‘Leucotomy Report Summary’ form used in 1951 and 1952 where nurses assessed patients before and after surgery and then on a monthly basis (Brandon Hospital for Mental Diseases, n.d.). For demonstration purposes, the information in gray is based on real patient data; however, it has been generalized to protect anonymity. Due to the stipulation that photographs could not be taken of restricted files at the Archives of Manitoba, the author (B.M. Collins) recreated this form in her research notes as closely as possible from the original archival version.

Henderson-Schultz Modification of the Gardner Behaviour Chart

LEUCOTOMY REPORT

Ward VII Date JANUARY 01/55
 Leucotomy No. 000 Name FEMALE PATIENT
 Date of Leucotomy 00/0/54 Type of Report WEEKLY
 Name of Nurse of Attendant A. Nurse Pt's Weight _____

	Score Range	Pos. Score	Neg. Score	Remarks
<u>BEHAVIOUR</u>				
1. Attention to appearance	3 to -3		2	Careless sloppy
2. Sleep	3 to -3	2		
3. Appetite	3 to -3	2		
4. Sociability	3 to -3		1	
5. Activity Control	3 to -3		1	
6. Noise Control	3 to -3		2	
7. Temper Control	3 to -3		2	Easily irritated
8. Combativeness Control	3 to -3		1	
9. Care of Property	3 to -3		2	Careless
10. Self Entertainment	3 to -3		1	Remains idle
11. Cooperation in Routine	3 to -3	2		
12. Work Capacity	3 to -3	2		
13. Initiative when alone	3 to -3		2	
14. Initiative Supervised	3 to -3		1	
15. Directability	3 to -3		1	
<u>PSYCHOTIC SYMPTOMS</u>				
1. Hallucinations	0 to -3	0		
2. Delusions	0 to -3		2	
3. Orientation	3 to -3	1		
4. Interest	3 to -3	2		
5. Tension (Ease)	3 to -3		1	
6. Reason	3 to -3		1	
7. Concentration	3 to -3	1		
8. Misidentification	0 to -3		2	
9. Flight of Ideas	0 to -3		1	
10. Decision	3 to -3	1		
<u>SIGNS OF DEPRESSION</u>				
1. Depression	0 to -1	0		
2. Suicidal Intent	0 to -1	0		
3. Self Accusatory	0 to -1		1	
4. Apprehension	0 to -1		1	
5. Evasive	0 to -1		1	
6. Monotone	0 to -1	0		
<u>MISCELLANEOUS</u>				
1. Euphoria	0 to -1	0		
2. Procrastination	0 to -1		1	
3. Hoarding	0 to -1		1	
4. Profanity	0 to -1		1	
5. Over-talkative	0 to -1	0		
6. Word Blocking	0 to -1	0		
TOTAL	63 to -87	13	29	

Figure 4.3. Reproduction of a 'Henderson-Schultz Modification of the Gardner Behaviour Chart' from 1955 used to assess a patient post-operatively at a single point in time (Brandon Hospital for Mental Diseases, n.d.). For demonstration purposes, the information in gray is based on real patient data; however, it has been generalized to protect anonymity. Due to the stipulation that photographs could not be taken of restricted files at the Archives of Manitoba, the author (B.M. Collins) recreated this form in her research notes as closely as possible from the original archival version.

Consequently, using this approach to quantitatively assess a person's behaviour against an established norm—namely, markers of citizenship—can be understood as more than simply an attempt to scientifically record and track progress as both Wilcox (1942) and Schultz and Evans (1953) claimed. Instead, this instrument and the modified version used in Manitoba can be seen as an example of how “normalizing judgment”—a tactic of disciplinary power—was deployed within mental hospitals. “In a sense, the power of normalization imposes homogeneity,” Foucault (1979) explained, “but it individualizes by making it possible to measure gaps, to determine levels, to fix specialties and to render the differences useful by fitting them one to another” (p. 184). In effect, this tool enabled physicians to compare a person both to themselves and to others who had undergone treatment. This type of comparison arguably facilitated the use of further methods of correction in patients whose behaviour did not adequately measure up. For instance, in BC, “somnolent insulin and electric convulsive therapy” were used to address “troublesome symptoms” that persisted after operation (Turnbull & Davidson, 1949, p. 132). In Manitoba, some patients were even submitted to a second—and in one case, a third—psychosurgical operation when there was inadequate improvement or a patient's condition eventually deteriorated again (Brandon Hospital for Mental Diseases, n.d.; Schultz & Henderson, 1959).

When it came to assessing the overall post-operative results, months or even years after the rehabilitation period had elapsed, hospital administrators and physicians drew a distinction yet again between the two variants of citizenship in how they communicated their findings. Statistical reporting of both discharge and hospital adjustment rates was one way in which this occurred. In Saskatchewan, for example, McKerracher (1954a) reported that, of the 35 operations conducted during the 1952-53 fiscal year, “eight patients were able to leave the

hospital [and] several showed varying degrees of improvement” (p. 79). In his annual report around the same time, the superintendent at Selkirk indicated that, of the 222 patients operated on since 1948, “49% are out of the hospital...Twenty percent are making a better hospital adjustment” (E. Johnson, 1954, p. 187). In BC in 1951, the presence of two separate statistical tables presenting the results—one for “Patients Operated On for the Relief of Symptoms” and another for “Patients Operated On for Improved Hospital Adjustment”—was indicative of different standards of treatment success (Crease, 1950b, p. V 17).

Qualitative descriptions of outcomes also demonstrated the presence of different standards and markers of success depending on which group a patient belonged to. Concerning those for whom a return to full citizenship was realized, patients who demonstrated adequate post-operative improvement were generally discharged as soon as possible “especially where the home environment is suitable” (Whitman, 1948, p. 420). As Lindsay (1951) explained, however, the degree of adaption to civilian life varied among these individuals:

The relief from anxiety, fear and distracting thoughts experienced by most patients was followed by a marked reduction or disappearance of the irritable outbursts or agitation and depression that previously made them unacceptable and unemployable. Hence, many have been able to resume the occupation they followed before they became ill... The others are able to live happily at home under the care of sympathetic parents helping with the housework and being reasonably sociable in comparison with their previous unco-operative, seclusive, and anti-social behaviour. (p. 232)

However, for patients who had been in hospital for a considerable time prior to operation, they generally found it more difficult to adjust outside of the hospital in part due to a lack of familial support: “Homes have frequently been disrupted, and families broken up. Those very assets

essential for the successful rehabilitation of the patient may be no longer available” (Whitman, 1948, p. 420). Still, whenever conditions made it possible, patients were discharged back into society, as “[Lobotomy’s] main purpose is to enable patients to live outside of an institution” (MacPherson, 1948, p. 10).

In cases where hospital adjustment was the aim, or the eventual outcome, success was frequently described in terms of whether patients conformed to the qualities of institutional citizenship. For instance, Lindsay (1951) reported that

The improved patients remaining in hospital are more euphoric, more co-operative and industrious, they are much happier, rarely if ever become agitated or disturbed but most of them, because of persisting delusional ideas and abnormal behaviour, would be unable to satisfactorily adjust outside of hospital. (p. 231)

Indeed, for patients whose behaviour had been especially disruptive or violent prior to operation, success was also understood in terms of a decrease in this troublesome behaviour that compromised their chances of hospital adjustment. For instance, a former staff member from Ponoka recalled that lobotomies “altered [patients’] behaviour from violent to very sedated” (Jubilee Historical Committee, ca. 1985). In BC, Crease (1946a) reported that psychosurgical efforts were “meeting with more success than we even anticipated, and has materially lessened the terrific nursing problems of the cases on whom it has been carried out” (p. 2). Even for those cases who were assessed as ‘unimproved’, Crease (1949) explained that they still “have shown more favourable conduct on the wards” (p. BB 11). Thus, whether a patient engaged more readily in hospital routines (e.g., labour, activities, personal habits) or simply no longer inconvenienced the work of hospital staff, the value of forging institutional citizens was touted as no less of an achievement.

Conclusion

Mental hospitals have long been implicated in the task of making productive citizens, as scholars like Scull (1991), Goffman (1961), and Foucault (1979, 1988) have suggested. In pursuit of their aim, administrators and physicians have readily experimented with and adopted a variety of techniques under the guise of therapeutic advancement that have been employed in service of controlling and correcting behaviour deemed non-normative. Despite the fact that new treatment innovations have tended to be positioned as an improvement upon the past—whether described as more scientific, effective, or humane—they have merely been new ways in which to pursue the production of docile bodies. For instance, in the case of moral therapy that was quickly mythologized as liberating, Scull (1991) drew upon Foucault when he asserted that

It was precisely the hidden strengths of moral treatment as a mechanism for the management and regulation of conduct and the production of docile bodies which made possible the abandonment of the brutal and harsh methods of management which had previously been inextricably connected with the concentration of large numbers of lunatics in an institutional environment. (p. 155)

Likewise, as was discussed in Chapters 1 and 2, the somatic therapies that were introduced in the 1930s were welcomed by mental hospital administrators and staff as more effective, economical, and biological ways in which to treat mental illness. Yet, the potential of these new treatments for reforming those who contravened societal norms and expectations did not lurk far below the surface.

In western Canada, psychosurgery—deployed as a last resort option for those who failed to respond to other treatments—was regularly credited as enabling a decrease in the use of restraints and seclusion particularly in controlling disruptive and violent behaviour (e.g., Crease,

1946b; A.E. Davidson, 1948; R.R. MacLean, 1950a). Along with rendering patients more compliant and amenable to hospital routine (i.e., more productive institutional citizens), psychosurgery was also employed for the purpose of restoring individuals to their full civil rights and responsibilities upon discharge from hospital. Throughout various steps in the administration of the treatment in the western provinces—namely, patient selection, rehabilitation, and assessment—these goals remained at the forefront. Still, just as moral treatment and the somatic therapies provided subtler mechanisms for controlling and correcting non-normative thoughts and behaviours, the introduction of the first tranquillizers in the mid-1950s would merely present a new way of pursuing the same objective.¹⁰⁹ Indeed, Manitoba's Provincial Psychiatrist, T.A. Pincock (1956) expressed this well:

The administration of the newer forms of drug therapy...has given us better control of the acutely disturbed, agitated, and anxious patients, some of whom are able to be discharged and maintained on the drugs in their homes, and others are benefited so much that they are allowed to remain out of hospital under supervision as out-patients. (p. 159)

¹⁰⁹ The introduction of tranquillizers is discussed next in the Conclusion to this project.

Conclusion

In his 1957 annual report as the newly appointed clinical director at the Provincial Mental Hospital in Essondale, I.S. Kenning (1957) explained that electroshock therapy (ECT) and psychosurgery had decreased after the introduction of the first tranquillizing drugs several years earlier. After reporting that “forty-eight lobotomies were done in 1950, whereas in 1956 only eleven were done,” he went on to critique the extent to which the treatment was employed earlier in the decade:

The latter figure [11 operations in 1956] probably represents the correct number of those individuals who have conditions which particularly respond to this operation, whereas the 1950 figure represented a more desperate staff using radical procedures to control chronically disturbed people when there was less in the way of treatment resources. Let us not return to that state. (p. Q 66)

Kenning’s commentary reflected changing perceptions of psychosurgery that began in western Canada in the mid-1950s. On a global scale, the popularity and use of the treatment declined worldwide from 1955 through 1964 on account of both the introduction of ataractic drugs and rising criticism concerning the surgery’s use (Collins & Stam, 2014).

Psychosurgery waned in western Canada (and more broadly in North America) amidst larger shifts in psychiatric care, most notably the movement toward community care that eventually culminated in deinstitutionalization. The diverse social, political, economic, professional, and ideological factors that intersected to produce these—and other—changes in Canada during the second of half of the 20th century have already received considerable attention from scholars (e.g., Boschma, 2011; Dooley, 2011, 2012; Dowbiggin, 2011; Dyck, 2010, 2011; Dyck & Deighton, 2017; Marchildon, 2011; Mills, 2007; Rae-Grant, 2001; Thifault & Dorvil,

2014).¹¹⁰ Because of the complexity of this era, a comprehensive account of psychosurgery's decline in the late 1950s and sporadic use in select western provinces in the 1960s would require additional research and analysis that is beyond the scope of this project. Nevertheless, a brief account of some of the key changes occurring in the decades following the Second World War will be described. First, economic growth and increased social welfare spending will be discussed in relation to changes in governance at the provincial level across western Canada. Next, the movement from institutional mental health care to community care, as well as the introduction of ataractics and subsequent decline of the somatic therapies in the 1950s, will be discussed. Finally, concluding remarks and directions for future research will be offered.

Western Canada by the Mid-20th Century

After the socio-economic hardships endured by western Canadians throughout much of the first half of the 20th century, Canada and other industrialized nations experienced considerable prosperity, development, and population growth in the decades that followed the Second World War (Waiser, 2005; Walsh, 2012). In his article examining immigration policy in Canada and Australia during this period, Walsh (2012) explained that “The release of pent-up consumer demand, baby-booms, suburbanization and the expansion of export markets to fuel European reconstruction combined to produce the post-war “long boom” or capitalism's “golden age”— a period of secular growth, high wages and full employment” (p. 356). This was true for each of the western provinces to varying degrees depending on their respective government's priorities concerning resources, industry, and social programs. Provincial governments that had

¹¹⁰ For more on deinstitutionalization in the United States, see the work of scholars such as Grob (1994) and Shorter (1997). As well, see Jack Pressman's (1998) work for an account of psychosurgery's decline in America.

largely tended towards the residualist approach in their social welfare spending (see Chapter 1) began to shift more towards institutionalist policies (Prince, 1996). As Prince (1996) explained, this new approach was where “The welfare state is...an *institution* integral to the cohesion and integrity of modern life...The welfare state is not a safety net but rather is a provider of essential public services and social rights to all citizens” (p. 245-246). Some of the political, economic, and social welfare shifts in each of the provinces will be described below in order to situate the changes that ensued within the mental health care sector during these decades of recovery and prosperity.

In 1952, British Columbia’s (BC) Social Credit party—led by W.A.C. Bennett—was elected into office. Bennett and his party would remain in power for the next two decades—a period which would see the province’s population more than double in size (Isitt, 2011; Prince, 1996). Once in office, “Social Credit pursued a strategy of ‘province building,’” explained historian Benjamin Isitt (2011), “‘opening up’ the vast resource-rich hinterland Interior through government spending on transportation and energy infrastructure to ensure the easy flow of exportable commodities” (p. 28). Even though the party “privileged infrastructure over social spending, the scope of government services expanded dramatically in the postwar era, as it did across North America and the western world” (p. 40-41). Still, Bennett’s government continued to prioritize a largely residualist approach to social welfare spending (Prince, 1996). According to historian Gordon Hak (2013), Premier “Bennett’s rhetoric ennobled the men and women who worked hard, produced material goods, and maintained solid families” (p. 114). Indeed, “Social Credit...tended to scapegoat welfare recipients” (Prince, 1996, p. 253). Nevertheless, by 1972, a more socialist agenda appealed to the province’s constituents leading the New Democratic Party to be elected into provincial leadership (Prince, 1996).

The prairie provinces, on the whole, experienced considerable growth on a variety of fronts after the end of the Second World War. Friesen (1984) summarized some of these developments as follows:

For the next three decades, steady and even spectacular economic growth was the rule. As the years passed, prairie society became increasingly like that in other parts of the ‘developed’ world. It was much more urban than rural; it was less dependent on agricultural income; its labour force included more representatives of the liberal professions and more managers and clerical workers; it was still heavily engaged in natural resource production and preoccupied by the activity of world markets but it had a reasonably diversified base of resources and the incomes of its residents were close to the national average; it was swept by the new trends in family formation, as was the rest of the developed world, and it succumbed to the trappings of material culture...It [also] became a part of the North Atlantic welfare state. (p. 418)

Whereas the prairies had once relied heavily on agriculture—both as a way of life and, as Friesen (1984) noted above, for subsistence—Doug Owsram (2007) explained that the crop decimation during the Great Depression and the subsequent movement of farmers into the cities meant that “By the middle of the twentieth century, the promise of Canada was no longer the promise of agriculture” (p. 335). Moreover, the population—especially in the cities—also rose substantially during this period. While Winnipeg had a larger number of residents during the first half of the century, other cities in the prairies grew to rival their eastern neighbour. The composition of these cities also became increasingly culturally diverse (Loewen & Friesen, 2009). However, despite the shared changes experienced by the prairie provinces, they each developed their own political, cultural, and industrial niches (Friesen, 1984).

As compared to the other prairie provinces, “Alberta was Canada’s Cinderella in the post-1940 decades...Nowhere was growth so rapid, the increase in wealth so obvious, and the atmosphere of confidence so palpable” (Friesen, 1984, p. 427). The province’s success was largely facilitated by a thriving petroleum industry after 1947, which drew more people into the province to meet demand (Finkel, 1988; Friesen, 1984). Such growth was surely a boon for the Social Credit party that had taken over the province’s leadership from the United Farmers of Alberta in 1935 (Finkel, 1988). Like BC’s Social Credit party who governed into the early 1970s, Alberta’s Socreds—led by William Aberhart, Ernest Manning, and finally Harry Strom—retained power in the province until they were defeated by Peter Lougheed’s Progressive Conservative party in 1971 (Barr, 2004; Finkel, 1988). It was during this time—particularly in the 1960s—when the province became a welfare state. Despite increased government spending on social welfare programs, and various partnerships with the federal government that became available the following decade, substantial changes began in earnest in the 1960s (Bella, 1986). Despite some resistance from the Minister of Welfare, the new Deputy Minister “was convinced of the need for reform and believed the development of provincial rather than municipal welfare programs was necessary to solve the problems of child abuse, illegitimacy, poverty, unemployment, and marriage and family breakdown” (Bella, 1986, p. 89). Like their counterparts in BC, however, Alberta’s Social Credit party increased spending on programs that would decrease the number of people who were reliant on the government (Bella, 1986). For instance, “In 1964, the province introduced a program of rehabilitation to encourage welfare recipients to return to work and become self-supporting. This was the first of several apparently ‘anti-welfare state’ programs” (Bella, 1986, p. 90). In terms of mental health care as well, money for expanding community health care initiatives—to be discussed further below—was prioritized

in the province in an attempt to decrease the number of patients in the large, costly, provincial mental institutions (Boschma, 2011). Though, as Geertje Boschma (2011) has explained, the decrease in the number of patients in hospital did not really come to fruition until the 1970s.

Manitoba also experienced considerable post-war economic growth despite a more modest increase in population during this period. Along with development in various natural resources and manufacturing, farmers in the province turned to tending livestock and producing other types of crops aside from wheat. Remaining at the helm in the 1950s was the Liberal-Progressive coalition that had initially been led by Premier John Bracken beginning back in the 1930s (Friesen, 1984). In 1958, however, Duff Roblin—the leader of the Conservative party—became premier when his party was elected by constituents who were seeking a change. In contrast to their predecessors, the new government “increased... spending on health, education, and public works” (Friesen, 1984, p. 420). “In the early 1960s,” explained Nelson Wiseman (1985), “...the Conservative government introduced and received credit for its major achievements: new schools, highways, parks, a Red River floodway to protect Winnipeg, and an improved welfare system. The early 1960s represented a peak in the government’s expansiveness and popularity” (p. 107). However, when Walter Weir took over as leader of the Conservatives in 1967, he “took the party on a tack to the right: opposition to the federal medical care and bilingualism programs and a determination to reduce government spending” (Friesen, 1984, p. 420). Unsurprisingly, the New Democratic Party—originally the Cooperative Commonwealth Federation (CCF) formed in the 1930s—became increasingly popular. By 1969, the NDP had been elected into office (Wiseman, 1985).

In contrast to the other western provinces, Saskatchewan was further ahead in terms of its social welfare policies courtesy of the province’s CCF party that had come to power just before

the end of the war. Indeed, as Bill Waiser (2005) explained in his monograph detailing the province's history, "Having run on the motto of 'Humanity First,' the CCF government was committed to providing the province's citizens with equal access to the highest possible levels of education, health care, and welfare" (p. 357). Whether the CCF was a true socialist party or not remains up for debate; however, they were

...an alliance of farmers, labourers, and professionals who shared a deep faith in British parliamentary institutions and an abiding distrust of the competitive market economy...The CCF was a movement, at times radical, at times moderate in outlook, seeking economic security and the amelioration of social injustice. (Friesen, 1984, p. 409)

However, economic growth was not as pronounced as it was elsewhere in Canada. Because the agricultural industry—specifically, wheat—no longer held the kind of capital it had decades earlier, many farmers abandoned their lands and moved to the city or left the province altogether (Waiser, 2005). Fortunately for those who remained in the province, the CCF was able to capitalize on new natural resources to fill the void: "Revenues from oil and natural gas, along with increased mineral production, especially uranium, filled provincial coffers during the 1950s, giving the Douglas government a string of consecutive surpluses" (Waiser, 2005, p. 366). By the 1960s, the province was finally reaping the benefits of an economic boom. Still, the fact that Saskatchewan had not been as prosperous as the other prairie provinces bolstered calls coming from the province's liberal party. As a result, the CCF, in contrast to the Social Credit parties in BC and Alberta, was unable to retain their hold on the province into the early 1970s. Instead, the Saskatchewan Liberal Party—led by Ross Thatcher—secured an unanticipated win (Waiser, 2005).

Moving from Institutional to Community Mental Health Care

Despite the economic boom and increased social welfare spending that characterized the post-war era, western Canadian mental hospitals continued to face overcrowding, personnel challenges, and inadequate funding during the latter half of the 1950s and even into the 1960s. These perennial issues not only compromised intensive treatment efforts, they also contributed to unsafe conditions that put patients at risk. During the 1953-54 fiscal year in Saskatchewan, for instance, “Overcrowding [at the hospital in North Battleford] continued to have an unfavorable effect upon the living conditions of the patients and to increase the difficulty of carrying out effective treatment procedures” (McKerracher, 1954b, p. 79). Conditions were even worse at Weyburn where “overcrowding, sanitation and ventilation” were especially problematic (p. 79).¹¹¹ Likewise, BC’s A.M. Gee (1955b) reported not only that a shortage of staff prohibited treatment efforts, but that “An active-treatment programme...is costly, particularly during the present transition stages, where we are still dealing with large numbers of our former treatment failures in greatly over-crowded buildings” (p. M 18).

Amidst this overcrowding, modest decreases in patient population were occasionally reported. Courtesy of initiatives instituted several years earlier that prioritized intensive and active treatment in both acute and chronic cases (e.g., Gee, 1955b), A.M. Gee (1957) was able to declare in 1957 that “We in British Columbia are pleased that our mental hospital population has

¹¹¹ Although concerns were expressed about the conditions at Weyburn on a number of occasions in the early 1950s (e.g., Osmond, 1954b), the deaths of seven leucotomy recipients due to wound infections “after a period of 20 days” (Dillenberg, 1953, p. 4) seems to have been at least one of the catalysts for a series of surveys conducted at the hospital (see Osmond, 1954a). One such survey was conducted of the operating theatre by a bacteriologist named H.O. Dillenberg (1953). While Dillenberg was unable to identify the cause of the infections, in his summary he stated that “the operating theatre does not fulfill the requirements of aseptic surgery” (p. 5).

been reduced by 2 per cent” (p. Q 18). “[D]espite an increase in admissions,” an overall decrease in patient population was also reported at the Saskatchewan Hospital, Weyburn (Lawson, 1956b, p. 75). E. Johnson (1960), Manitoba’s Provincial Psychiatrist by that time, explained why a decrease brought about by successful treatment initiatives also seemed to be accompanied by persistently high admissions:

During the past three decades the advances in physical and chemical forms of treatment and the improved techniques in psychotherapy have enabled us to double the rate of discharge of patients suffering from the functional psychoses and to reduce their hospital stay by two thirds. However these advantages have been lost to a considerable extent by the failure of these patients to maintain their improvement when returned to the community. (p. 107)

By the end of the 1950s, hospital administrators continued to report that overcrowding remained persistent and burdensome (e.g., Kenning, 1960; E. Johnson, 1960).

As had been normative over the preceding half century, some hospital administrators initially made plans to erect new facilities to manage the overcrowding (e.g., Gee, 1955a). By the mid-1950s, however, a shift away from large mental hospitals had already begun with recommendations made by the Canadian Mental Health Association (CMHA) bolstering these efforts:

The Canadian Mental Health Association has recommended that hospital planning in the future will be around the provision of small regional hospitals to be located in the areas in which they will serve and where possible be closely associated with the already existing facilities in the community. (Gee, 1957, p. Q 18)

The new direction reinforced by the CMHA led Saskatchewan to devise “a long-term plan to alleviate overcrowding of the present mental hospitals and at the same time to make possible the application of the new discoveries of recent years with regard to the most effective and economical treatment of the mentally ill” (Lawson, 1956b, p. 70).

The move toward community care and away from mental hospitals was facilitated across all of the western provinces by a gradual opening up of hospital wards. By 1955 at the Provincial Mental Hospital in Ponoka, for example, “There was a progressive policy to increase the freedom of patients, while in hospital. At the end of the year, approximately 25% of the patient population had been granted grounds privileges” (Michie, 1956a, p. 81). And by the close of the decade, the Provincial Mental Institute in Edmonton had also adopted such a policy (e.g., MacPherson, 1961). Indeed, all of the mental hospitals in the western provinces worked to open up their wards throughout the latter half of the decade (e.g., Gee, 1957; Lawson, 1955; E. Johnson, 1956). Allowing patients to roam more freely also occurred in tandem with improvements in public perceptions toward mental illness as well as the belief that patients had the right to return to their communities (Gee, 1955b).

Mental hospitals also gave increasing attention to outpatient services enabling some patients to avoid hospitalization and others to be discharged from hospital back into the community while receiving ongoing support. F. S. Lawson (1956b), the Director of Saskatchewan’s Psychiatric Services Branch, reported that

The major demand upon the resources of the branch continued during 1955-56 to be the mental institutions. Substantial steps were taken during the year to improve and expand the preventative services... In the calendar year 1955 a second short-term treatment unit was opened as a psychiatric ward and out-patient department in the University Hospital,

Saskatoon...and plans and construction were almost completed to provide for a third short-term treatment psychiatric ward at the Moose Jaw Union Hospital. This will bring the preventative service facilities to a total of four short-term treatment units for in-patients, four full-time mental health clinics, and seven part-time clinics. (p. 69)

While Saskatchewan has often been described as having been at the vanguard of these developments (e.g., Marchildon, 2011; Mills, 2007), Manitoba was not that far behind with several outpatient and travelling clinics in operation by the mid-1950s (e.g., Pincock, 1955). Moreover, the number of psychiatric wards within general hospitals increased in several provinces in service of moving away from mental institutions as the primary site of care (e.g., Gee, 1956; Pincock, 1958). By the close of the decade, the superintendent at Selkirk summarized this shift in orientation: “The concept of mental hospital care is in a process of continuous development...This is seen particularly in the movement away from the custodial approach and toward an active treatment program on all wards and extension of services into the community” (Tavener, 1960, p. 131).

The Introduction of Chlorpromazine and the Decline of the Somatic Therapies

“The era of psychosurgery as a widespread hospital therapy,” expounded historian Jack Pressman (1998), “ended with the introduction of the drug chlorpromazine in 1954” (p. 401). As Pressman elaborated in the epilogue to his book, and as Collins and Stam (2014) have also shown, the introduction of this new class of drug—that is, ataractics or tranquilizers—resulted in a marked decline in the use of psychosurgery and other somatic therapies over the course of the next decade. Chlorpromazine was a chemical compound synthesized in 1951 by Henri Laborit in France while he was conducting research on antihistamines. The following year, the new drug had garnered the attention of psychiatrists in France and abroad and was soon sold in

the United States as Thorazine and elsewhere as Largactil (Ban, 2007; Shorter, 1997). In eastern Canada, Largactil was first used in Ontario and Quebec in 1953 (Collins, 2012; Shorter, 1997). In western Canada, it was first employed in 1954 (Lawson, 1955; R.R. MacLean, 1956; S. Schultz, 1955, p. 171; Speirs, 2010).¹¹² Within a few years, new tranquillizing drugs were regularly adopted and their efficacy for treating specific conditions was frequently discussed. In the 1956 annual report from the Provincial Mental Institute in Edmonton, for instance, A.D. MacPherson (1956b) indicated that “Largactil was found to be the most effective, Serpasil effective in certain cases but not generally effective. Equanil was found to be very effective in neurotic conditions” (p. 106). The following year, S. Schultz (1958) reported that Chlorpromazine, Pacatal, Reserpine, Trilafon, Stemetil, and “Other Psychiatric Drugs” were among those used at the Brandon Hospital for Mental Diseases (p. 170).

As was the case with most new therapies that had been introduced into mental hospitals by this time, the desperation of the day led to their widespread use on a host of conditions. At the Provincial Mental Hospital in Ponoka, for instance, T.C. Michie (1956b) reported “They contributed greatly toward the improvement in the general behaviour and feeling of well-being among the patients on the continued treatment wards. The drugs also greatly alleviated the symptoms of the recently admitted and acutely ill patients” (p. 94). As this quote exemplified, the utility of psychosurgery discussed in Chapter 4 as a mechanism for producing useful and docile citizens (either for release back into society or for better hospital adjustment) also became possible through the application of tranquillizers. In Saskatchewan, Lawson (1956b) indicated

¹¹² In Saskatchewan, the use of the new drug was reported in the 1954-55 annual report. While it is possible that it was first employed between January and March of 1955, there is no indication that it was not used in 1954 as was the case with the other provinces (Lawson, 1955).

that “patients became more accessible to psychotherapy, and the various ‘activity therapies’ ... [and the] condition of some patients improved to the point where they were able to enjoy grounds privileges or were able to return to the community” (p. 73). Regarding the patients who were most troublesome and who would have likely been candidates for psychosurgery (see Chapter 4), E. Johnson (1956) affirmed that

Many of the patients receiving these drugs are leading a much happier hospital life. A number who were formerly very disturbed and required physical restraint from time to time have been able to adapt themselves at a level of active interest in ward work and other occupational outlets. (p. 200)

A few years later, the superintendent at the Selkirk Hospital for Mental Diseases indicated that “The ataractic drugs, on the whole, have proven very useful, particularly as adjuncts to other specific therapies and in improving the responsiveness of patients to psychotherapy. These drugs have been definite factors in enabling us to increase our rate of discharge” (E. Johnson, 1958, p. 187).¹¹³

With the new drugs effectively alleviating symptoms and managing the behaviour of recalcitrant patients, the necessity of employing the more radical somatic treatments declined

¹¹³ The increasing use of tranquillizers, however, was not without its own problems. In the 1960 annual report, F.G. Tucker (1961) reported: “We have been able to place increasing stress upon psychotherapy, and there has been a decreasing use in somatotherapy. In this respect we have reduced the use of coma insulin, although we believe that this treatment still serves a useful purpose in a limited number of selected cases. There has been a continued use of and interest in the many psychopharmacological preparations available. These drugs continue to be important adjuvants in therapy, and problems have arisen in ensuring that patients continue to receive the necessary medication on discharge from the Hospital. Difficulties have arisen from the lack of supervision and the high cost of drugs for patients in receipt of marginal incomes” (p. J 75).

significantly toward the end of the 1950s. In the 1957 annual report published in BC, it was noted for the first time that “[t]here has been a decrease in the use of coma insulin therapy” (Gee, 1957, p. Q 24). “[T]he lessening of electroconvulsive therapy and lobotomies, and the increasing use of tranquillizers” was also reported (Caunt, 1957, p. Q 58). Likewise, in Alberta, “Both active treatment hospitals reported the extensive and successful use of the tranquillizer and antidepressant drugs, and group therapy. Both hospitals [also] reported an appreciable reduction in the use of Electro and Insulin Shock therapy” (“Active treatment mental hospitals,” 1961, p. 122). Although many provincial mental hospitals were still employing ECT and insulin shock therapy to some extent by the end of the decade, their use had notably declined as compared to earlier in the decade.

Psychosurgery’s Decline in Western Canada

As mentioned above, psychosurgery did not halt suddenly in western Canada or elsewhere once tranquillizing drugs were introduced. Indeed, in 1954 and 1955 some lobotomy programs continued to expand as was characteristic of the first half of the 1950s (see Chapter 3). In BC, for instance, “A new lobotomy ward for male patients has been developed in the West Lawn Building. This has made more specialized treatment and care possible for this group of patients following surgery” (Caunt, 1955, p. M 53). In Manitoba, the federal mental health grants that had been obtained especially for the expansion of this work remained listed in the annual report in 1954 (Donovan, 1955). Therein, the Provincial Psychiatrist unequivocally stated the position of the province on the treatment: “Both Medical Superintendents at Selkirk and Brandon are convinced of the value of leucotomy as a procedure in selected cases” (Pincock, 1955, p. 153). It is more difficult to assess the immediate impact of ataractics on psychosurgery in Alberta and Saskatchewan because their annual reports tended to provide limited details concerning

treatments in general. We do know that during the 1954-55 fiscal year, 28 surgical operations were performed at the hospital in North Battleford (Lawson, 1955, p. 74). The last time lobotomies were clearly mentioned in the annual reports from Alberta's mental hospitals was in 1953 before the introduction of tranquillizers. That year, it was reported that "A small number of patients had Lobotomy operations, and the results were encouraging" (Michie, 1955, p. 160).¹¹⁴

From 1956 onwards, the declining use of psychosurgery became increasingly apparent across the western provinces. In Saskatchewan, the success of the new tranquillizers at North Battleford meant that the "postponement or elimination of psychosurgery became feasible" (Lawson, 1956b, p. 73). In Manitoba, it was reported that "Leucotomies have been done sparingly in selected cases" (Pincock, 1958, p. 150). The same year, the number of surgeries was no longer reported among the summary tables in the clinical director's report in BC as it had since 1948 (Crease, 1949; Kenning, 1957). Addressing the decline, Essondale's Medical Superintendent, T.G. Caunt (1959), stated, "It is noticeable that fewer lobotomies are being done now—only four were performed during the fiscal year...Ataractics are used fairly extensively now. Psychotherapy, individually and more commonly group therapy, is used whenever possible" (p. L 46).

By the beginning of the 1960s, F.S. Lawson (1961) was clear that "psychosurgery ha[d] not been used for the last four years" at the hospital in North Battleford, suggesting the treatment ceased to be used in Saskatchewan around 1955 (p. 90).¹¹⁵ He went on to explain that "drugs are

¹¹⁴ In the 1955 annual report, it was mentioned that "6 labotomies" were done at the Provincial Mental Institute (MacPherson, 1956a, p. 92). Assuming this was a typo, this was the final time that lobotomies were mentioned in the annual reports from Alberta's mental hospitals in the 1950s.

¹¹⁵ While treatments were rarely mentioned in the annual reports for Weyburn in the 1950s, it is likely that psychosurgery was halted indefinitely at the hospital after the death of seven recipients in 1953 on

the least drastic of all the measures...[and] they are more readily accepted by the patient and are a superior agent for the facilitation of psychological and sociological therapies. They may be continued after the patients' release from hospital" (p. 90). In BC, psychosurgery was not mentioned in the 1959 annual report, suggesting that no operations were conducted during the year (Kenning, 1960). In Manitoba in 1958, it was clearly indicated that "no leucotomies were performed," however, S. Schultz (1959) added that "we believe leucotomy has a place still in modern psychiatric treatment, and some cases are now under consideration" (p. 178). Yet, the following year, leucotomies were not mentioned at all in the annual reports for Brandon or Selkirk (Bristow, 1960; Tavener, 1960).

Despite the absence of psychosurgery from all of the annual reports by the end of the decade, it would be a mistake to assume that no surgeries were conducted after the 1950s. While no further evidence of the treatment's use was found in BC or Saskatchewan, it was reportedly used periodically in Manitoba and Alberta. For instance, Rankin Hay (2003), a neurosurgeon from Manitoba, recounted that

By the late 1960s a variety of modified procedures had been devised for the treatment of specific psychological illnesses. Two of them were reported to have satisfactory results: undercutting of the orbital cortex, in patients with a severe depressive illness; and cingulectomy for those with distracting, obsessional behaviour. In the early Seventies Hay performed a modified operation on 22 patients referred by psychiatric colleagues: 17 orbital leucotomies for intractable depression; 5 bilateral cingulectomies for obsessional

account of wound infections (Dillenberg, 1953; see footnote number 111 above). According to a hospital history written by the Souris Valley History Book Committee (1986), the treatment was discontinued at Weyburn in 1954.

states. The post-operative results were gratifying. By 1980, as a consequence of advances in neuropharmacology, surgery for psychological disorders had become obsolete. (p. 133)

In Alberta, on the other hand, Blair (1969) quoted a study published in 1968 by the province's Division of Mental Health indicating that although the use of psychosurgery had "steadily decreased. The procedure is still used on selected cases" (p. 298). Indeed, in 1967-68, "six patients were admitted to the Alberta Hospital, Ponoka, for lobotomy, following which they were returned to Deerhome" (LeVann, 1967-68, as cited by Malacrida, 2015, p. 176). According to Kinnear (1985), transorbital lobotomies were conducted at Ponoka until July of 1968. A newspaper article from the *Red Deer Advocate*, however, indicated that the last lobotomy in Alberta was performed in 1973 (Lee, 1979, n.p.).

Even though operations were occasionally performed in the late 1960s and early 1970s in Alberta and Manitoba, psychosurgery peaked in western Canada in the early 1950s courtesy of federal mental health grants. After having been adopted in Manitoba in 1943, the treatment spread to all of the provinces by 1946 and only declined in the mid-1950s after tranquilizers were introduced. Of the four provinces, British Columbia and Manitoba had the most robust psychosurgery programs. Incidentally, these provinces also regularly provided the number of surgeries conducted each year in their respective annual reports. The extent to which psychosurgery was employed in Alberta and Saskatchewan, however, remains less clear due to inconsistent reporting in annual reports and limitations concerning access to archival data for this project. Nevertheless, a tabulation of the available data provided by the provinces reveals that no less than 1,240 surgeries were performed in western Canada between 1943 and 1973 (see Appendix D for a breakdown by province and the sources used in generating this figure). This figure is not far below the 1,438 operations performed in the province of Ontario between 1941

and 1966 (see Collins, 2012). While these values do not capture the full extent of the treatment in any most of the provinces, both figures are comparable given that the Dominion Government estimated that the combined population of the western provinces in 1950 was 3,702,000 while the population in Ontario was 4,512,000 (“D.B.S. memorandum,” 1950).

Concluding Remarks and Directions for Future Research

As the first scholarly account of the use of psychosurgery in western Canada, this project has primarily attended to the adoption, organization, and purpose of the treatment within provincial mental hospitals in British Columbia, Alberta, Saskatchewan, and Manitoba. In Chapter 1, I demonstrated that from the time that the first asylums opened in western Canada in the late 1800s and early 1900s, these institutions struggled to keep up with rapidly swelling patient populations as a consequence of a dearth of infrastructure and resources and in the aftermath of two world wars and the Great Depression. In Chapter 2, I explored how the absence of adequate support from their respective provincial governments led hospital psychiatrists in western Canada to readily experiment with new treatments and therapeutic approaches that had any potential for increasing the number of patients discharged from hospital. While the somatic therapies—of which psychosurgery was one—provided a practical way for hospital administrators to manage severely overcrowded institutions, they also presented psychiatrists with an opportunity to exhibit their legitimacy as a medical specialty. Essentially, psychiatrists in western Canada and elsewhere saw an opportunity to use these new physical treatments to reform their image from merely the custodians of the mentally ill to active medical practitioners whose treatments were capable of effecting cures (or, at the very least, considerable relief of symptoms). While Chapters 1 and 2 leveled arguments that have been raised by other scholars in North America, they had never been vetted in the western Canadian context. As such, these

chapters not only add to the literature on psychosurgery in Canada, but the introduction of the somatic therapies across the western provinces, as well as other details concerning institutional mental health care during the first half of the 20th century, have also been documented for the first time.

In Chapter 3, I discussed the deployment of psychosurgery across each of the provinces highlighting interprovincial differences in accessing trained (neuro)surgeons, logistical arrangements, and surgical technique. When psychosurgery was introduced, each province needed to negotiate offering the treatment within the constraints of existing resources. The expansion of the treatment in most of the provinces was ultimately made possible by federal mental health grants that became available in 1948. As a result, by 1954, all of the provincial mental hospitals were performing psychosurgery—either on site or in partnership with a nearby general hospital. In addition to the variations in how the operations were facilitated from province to province, there were also considerable differences in the surgical techniques used by the respective surgeons. This chapter also highlighted that psychosurgery was implemented with limited interactions with neighbouring provinces; instead, hospital administrators, psychiatrists, and surgeons in each of the provinces were more readily influenced by what was happening in the United States and, to a lesser extent, in eastern Canada.

Finally, in Chapter 4, I provided a critical account of psychosurgery as a mechanism for (re)making productive citizens. Using the work of two social theorists, Erving Goffman and Michel Foucault, I began by situating the mental hospital as a social institution responsible for reforming, correcting, and managing those in society whose citizenship had been revoked upon incarceration on account of non-normative behaviours, thoughts, or a failure to contribute to the collective. Through an examination of various aspects of the administration of psychosurgery—

from hospital admission through to post-operative assessment and rehabilitation—I argued that psychosurgery was deployed on two groups of patients in order to forge two different kinds of productive citizens. One group was operated upon with the intention of restoring patients to full citizenship with eventual discharge from hospital as the end goal. However, another category—that of institutional citizen—was constructed to justify operations on chronic patients who displayed disruptive behaviour, unclean habits, or who failed to contribute to the work of the hospital. While becoming a productive citizen upon discharge meant the restoration of civic rights and responsibilities, becoming a productive “institutional citizen” meant patients were more amenable to hospital life and were no longer disruptive or violent.

This project has ultimately revealed that the use of psychosurgery in western Canada was remarkably similar to its deployment elsewhere in North America. However, factors such as geography, access to trained neurosurgeons, and the availability of resources also shaped the respective leucotomy programs that emerged in each province. Given the attention that has been paid to eugenics and deinstitutionalization in western Canada, it is surprising that such a considerable gap in scholarship persisted for so long. Although the challenge of accessing archival records, particularly in the prairie provinces, may have served as a deterrent to researchers, it is likely that the enduring preoccupation with Walter Freeman and American psychosurgery is to blame. Documenting the history of this treatment in western Canada adds to the growing body of international literature that is finally drawing attention away from an American-centric history of the treatment. Indeed, the results of this study finally provide historians of psychiatry—like Dyck and Deighton (2017) and Tone and Koziol (2018)—with details concerning psychosurgery’s use in British Columbia, Alberta, Saskatchewan, and

Manitoba, so that they are no longer required to turn to the American literature in the absence of Canadian data.

Directions for Future Research

Given that this project was the first of its kind in western Canada and the fact that it spanned four provinces and several decades, there is considerable room for future research. First, as mentioned above, a more thorough investigation of psychosurgery's decline that carefully examines changes in provincial politics, shifts within the field of psychiatry locally and more broadly, the provincial roots of community psychiatry, and internal and external pressures to depopulate large-scale mental hospitals is warranted.

Second, despite the fact that this project was not a patient history, I became aware of the existence of patient files in a number of provinces during the course of my research. In Saskatchewan, for example, patient files remain from at least one of the mental hospitals; though, Saskatchewan's privacy legislation requires separate ethics approval be obtained from an approved provincial body in order to access them. Moreover, as I understand it, the records are organized by case number (rather than by year), which means that it would take a considerable amount of time to access and individually review these files. In Manitoba, patient files from the hospitals in Brandon and Selkirk are available on microfiche on site at the Selkirk Mental Health Centre and organized the same as the other two provinces. Fortunately, a list of operations at Brandon was located during the course of this project that makes it possible to search for a specific psychosurgery recipient's patient file ("Brandon Mental Hospital leucotomy service," n.d.).¹¹⁶ Although the process for accessing any health-related funds in Manitoba, including these

¹¹⁶ No comparable list of operations conducted at the hospital in Selkirk was found.

patients files, is one of the most stringent I have encountered to date, the patient records from Brandon are comprehensive and would be worthy of extensive study.

Third, scholars elsewhere have found that women were subjected to psychosurgery more frequently than men (e.g., Ögren & Sandlund, 2007; Tone & Koziol, 2018; Braslow, 1999a). In Canada, more than half of those who received the operation at the Ontario Hospital, Hamilton, were women (Collins, 2012). A similar trend was also apparent at the Brandon Hospital for Mental Diseases where approximately 200 leucotomies were conducted on females and 110 on males (“Brandon Mental Hospital leucotomy service,” n.d.). Because most of the western provinces did not consistently provide the number of surgeries conducted in a given year—let alone a breakdown by gender—any examination of this issue would require a comprehensive review of individual patient files in the provinces where they are available.

Fourth, given that this project examined the four western provinces and that only Ontario and a single hospital in Quebec have been studied to date (Collins, 2012; Perreault, 2011, 2012), further research in Quebec and the Maritimes is still needed. Furthermore, none of the operations performed on patients at the federally run veteran’s hospitals in Canada—such as the Queen Mary Veterans Hospital in Quebec (e.g., Winfield, 1955) and the Westminster Veterans Hospital in Ontario (“Electric-shock therapy best,” 1947)—have received any attention.

Finally, there is considerable room for further research concerning the history of therapeutics and institutional care more broadly in western Canada during the first half of the 20th century. Indeed, it was the lack of scholarship in these areas that made it necessary to dedicate an entire chapter in this project to the history of mental hospitals in the west. Further work could also be done on the history of the other somatic therapies beyond the information

provided here. Ultimately, there is no shortage of opportunities available for research related to western Canada's psychiatric past.

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Appendix A

Cabinet Ministers, Provincial Psychiatrists, and Mental Hospital

Superintendents in Western Canada, 1872-1960

British Columbia

Position	Name	Years
Provincial Secretary ¹¹⁷	Alexander R. Robertson	1872
	John Ash	1872-1876
	Andrew C. Elliott	1876-1877
	Alexander E. B. Davie	1877
	Andrew C. Elliott	1877-1878
	Thomas B. Humphreys	1878-1882
	William J. Armstrong	1882-1883
	John Robson	1883-1892
	Theodore Davie	1892
	James Baker	1892-1898
	John F. Hume	1898-1899
	Charles A. Semlin	1899-1900
	George W. Beebe	1900
	James S. Yates	1900
	James D. Prentice	1900-1901
	John C. Brown	1901-1902
	Denis Murphy	1902
	William W. B. McInnes	1902-1903
	Arthur S. Goodeve	1903
	Robert F. Green	1903
	Richard McBride	1903-1904
	Frederick J. Fulton	1904-1906
	William Manson	1906-1907
	Henry Esson Young	1907-1915
	Thomas Taylor	1915-1916
	George A. McGuire	1916
	John D. MacLean	1916-1924
	Kenneth C. MacDonald	1924
	William Sloan	1924-1927
	Thomas D. Pattullo	1927-1928
	Ian A. MacKenzie	1928
Samuel L. Howe	1928-1933	

¹¹⁷ In British Columbia, the provincial mental hospitals were under the Provincial Secretary from their inception; however, in 1959, the province's Mental Health Services were transferred to the portfolio of the Department of Health Services and Hospital Insurance ("British Columbia," n.d.).

Position	Name	Years
Provincial Secretary	George Weir	1933-1941
	Arthur W. Gray	1941
	George S. Pearson	1941-1950
	William T. Straith	1950-1952
	Wesley D. Black	1952-1972
Minister of Health Services and Hospital Insurance	Eric Martin	1959-1966
General Superintendent and Provincial Psychiatrist ¹¹⁸ --- Director of Mental Hygiene and Psychiatry ¹¹⁹ --- Director of Mental Health Services ¹²⁰	H. C. Steeves	1920-1926
	Arthur L. Crease	1926-1950
	A. M. Gee	1950-1958
	A. E. Davidson	1958-1967
Medical Superintendent, Victoria Asylum	Israel W. Powell	1872-1873
	J. B. Matthews	1874-1877
	W. H. MacNaughton Jones	1877-1878
Superintendent, Provincial Lunatic Asylum, New Westminster ---- Superintendent, Provincial Mental Hospital, New Westminster ¹²¹	E. A. Sharpe	1878-1883
	J. I. Phillips	1883-1885
	R. J. Bentley	1885-1895
	G. H. Bodington	1895-1901
	G. H. Manchester	1901-1905
	Charles E. Doherty	1905-1916
	J. G. McKay (Acting)	1916-1917
	Charles E. Doherty	1918-1920
	H. C. Steeves	1920-1926
	Arthur L. Crease	1926-1935/36
	E. J. Ryan	1935/36-1951

¹¹⁸ The title Provincial Psychiatrist was added to the title of General Superintendent for the first time in British Columbia in the annual report for the fiscal year ending March 31st, 1936 (see Crease, 1936b).

¹¹⁹ The title of General Superintendent and Provincial Psychiatrist changed to Director of Mental Hygiene and Psychiatry in the annual report for the fiscal year ending March 31st, 1947 (see Crease, 1948).

¹²⁰ The title of the position changed to Director of Mental Health Services to reflect the establishment of Mental Health Services still under the Provincial Secretary (“British Columbia,” n.d.; Gee, 1951).

¹²¹ The hospital at New Westminster became The Woodlands School in February 1951 and L. E. Sauriol was appointed Medical Superintendent (Gee, 1951). The facility had already been acting as a training school for a number of years before its name was officially changed (Sauriol, 1951). After this occurred, the names of the superintendents were no longer immediately relevant and, thus, not recorded above.

Position	Name	Years
Superintendent, Provincial Mental Hospital, Essondale	Charles E. Doherty	1913-1916
	J. G. McKay (Acting)	1916-1917
	Charles E. Doherty	1918-1920
	H. C. Steeves	1920-1926
	Arthur L. Crease	1926-1935/36
	E. J. Ryan	1935/36-1952
	T. G. Caunt	1952-1963

Table A.1. List of British Columbia's provincial secretaries, ministers, and mental hospital superintendents, 1872-1960 (Bennett & Verspoor, 1989; Bryson, 1965; Caunt, 1953; Crease, 1928, 1936b, 1948; A.E. Davidson, 1960; Doherty, 1906, 1914; Gee, 1950, 1953; Kelm, 1994b; J.D. MacLean, 1917, 1919; Manchester, 1902; Sauriol, 1951; Scott, 2011; Steeves, 1921; Tucker, 1969).

Alberta

Position	Name	Years
Minister of Public Health	Alexander G. MacKay	1919-1920
	Charles R. Mitchell (acting)	1920-1921
	Richard G. Reid	1921-1923
	George Hoadley	1923-1935
	Wallace Warren Cross	1935-1957
	Joseph Donovan Ross	1957-1967
Commissioner of Mental Institutions and Director of Mental Health ¹²²	Charles. A. Baragar	1930-1936
General Medical Superintendent of Mental Institutions ¹²³ --- Director of the Division of Mental Health ¹²⁴	Randall R. MacLean	1942-1965

¹²² In the 1930 annual report, a section for the Mental Health Division appeared for the first time along with Baragar's appointment as Commissioner of Mental Institutions and Director of Mental Health overseeing the province's mental health services (see Baragar, 1931b).

¹²³ After Baragar's death in 1936, the position of Commissioner seemed to remain vacant until R.R. MacLean was listed in the 1942 annual report as the General Medical Superintendent of Mental Institutions, along with remaining the Medical Superintendent at the Provincial Mental Hospital, Ponoka (R.R. MacLean, 1944).

¹²⁴ The title of General Medical Superintendent of Mental Institutions was changed to the Director of the Mental Health Division in 1948 (see R.R. MacLean, 1950b). However, the title changed slightly the following year to Director of the Division of Mental Health (see R.R. MacLean, 1951).

Position	Name	Years
Superintendent, Provincial Mental Hospital, Ponoka	T. Dawson	1911-1916
	E. H. Cooke	1916-1931
	Charles A. Baragar	1931-1932
	George A. Davidson	1932-1935
	Charles A. Baragar	1936
	Randall R. MacLean	1936-1948
	T. C. Michie	1948-1965
Superintendent, Provincial Mental Institute, Oliver (Edmonton)	D. L. Dick	1923-1928
	C. P. Fitzpatrick	1928-1931
	W. J. McAlister	1931-1948
	A. D. MacPherson	1948-1966

Table A.2. List of Alberta's ministers of public health, commissioners, and mental hospital superintendents, 1911-1960 (Abercrombie, 1983; Baragar, 1931b; Johnson et al., 1986; R.R. MacLean, 1938, 1944, 1950b, 1951; Michie, 1967; The Provincial Archives of Alberta, 2006).

Saskatchewan

Position	Name	Years
Minister of Public Health	John Michael Uhrich	1923-1929
	Frederick Dennis Munroe	1929-1934
	John Michael Uhrich	1934-1944
	Thomas Clement Douglas	1944-1949
	Thomas John Bentley	1949-1956
	Jacob Walter Erb	1956-1961
Minister of Public Works	Walter Scott	1905-1912
	Archibald Peter McNab	1912-1926
	John Michael Uhrich	1926-1929
	James Fraser Bryant	1929-1934
	George Spence	1934-1938
	John Michael Uhrich	1938-1944
	Lachlan Fraser McIntosh	1944
	John Taylor Douglas	1944-1948
	James Andrew Darling	1948-1956
Clarence George Willis	1956-1960	
Commissioner of Mental Services	James W. MacNeill	1931-1945
--- Commissioner of Mental Services and Chief Psychiatrist ¹²⁵	R. O. Davison	1945-1946
----	Donald G. McKerracher	1945-1955

¹²⁵ When D.G. McKerracher was appointed in November of 1946, he was given the title of Commissioner of Mental Services and Chief Psychiatrist (see Douglas, 1948b).

Position	Name	Years
--- Director, Psychiatric Services Branch ¹²⁶	Frederick S. Lawson	1955-1969
Superintendent, Saskatchewan Hospital, North Battleford	James W. MacNeill	1914-1945
	G. F. Nelson	1945-1948
	Frederick S. Lawson	1948-1953
	M. Demay	1953-1968
Superintendent, Saskatchewan Hospital, Weyburn	Robert M. Mitchell	1921-1929
	A. D. Campbell	1929-1947
	Frederick S. Lawson	1947-1948
	A. R. Coulter	1948-1953
	H. Osmond	1953-1961

Table A.3. List of Saskatchewan’s ministers of public health, ministers of public works, and mental hospital superintendents, 1905-1960 (Campbell, 1930b; “Council of Public Health,” 1932; Douglas, 1947, 1948b; Lawson, 1949; McKerracher, 1952; Mills, 2007; “Obituaries,” 1970; “Saskatchewan ministers,” n.d.; Shury et al., 2013; Souris Valley History Book Committee, 1986).

Manitoba

Position	Name	Years	
Minister of Health and Public Welfare	Charles R. L. Cannon*	1924-1927	
	Edward W. Montgomery*	1927-1928	
	Edward W. Montgomery	1928-1932	
	[?]	1932-1935	
	Isaac B. Griffith	1935-1940	
	James McLenaghan*	1940-1944	
	Ivan Schultz*	1944-1952	
	*Minister of Health	Francis C. Bell	1952-1955
	Robert W. Bend	1955-1958	
	George Johnson	1958-1961	
Provincial Psychiatrist	George Johnson*	1961-1963	
	Alvin T. Mathers	1918-1942	
Superintendent, Brandon Hospital for Mental Diseases	Thomas A. Pincock	1942-1960	
	Gordon Bell	1891-1894	
	M. S. Fraser	1894	
	Niel B. Gillies	1894-1900	
	John J. McFadden	1900-1903	
	James J. Anderson	1903-1909	
	John J. McFadden	1909-1916	
	Harvey E. Hicks	1916-1918	
Joseph B. Chambers	1918-1919		

¹²⁶ In the 1950-51 annual report, McKerracher’s title was listed as Director of the Psychiatric Services Branch (McKerracher, 1952).

Position	Name	Years
Superintendent, Brandon Hospital for Mental Diseases (Cont.)	Charles A. Baragar	1920-1930
	Thomas A. Pincock	1930-1942
	Stuart D. Schultz	1942-1959
	Morval E. R. Bristow	1959-1966
Superintendent, Selkirk Hospital for Mental Diseases	David Young	1886-1912
	Joseph B. Chambers	1912-1919
	Andrew T. Rice (acting)	1919
	Edgar C. Barnes	1920-1943
	Edward A. Johnson	1943-1959
	Roy H. Tavener	1959-1967

Table A.4. List of Manitoba’s ministers of health and public welfare, provincial psychiatrists, and mental hospital superintendents, 1891-1960 (Carr & Beamish, 1999; Elliott & Defries, 1958; Jackson, 1942; “Medical superintendents,” 2016; “Medical superintendents/medical directors,” 2019; “MLA biographies – deceased,” n.d.; “News notes,” 1960; Pincock, 1942c).

Appendix B

Annual Reports (1935-1950) Used to Create Figures 2.1 and 2.2

British Columbia

- Pearson (1942, 1944, 1945, 1946, 1947, 1948, 1949, 1950)
- Straith (1950)
- G.M. Weir (1936a, 1936b, 1937, 1938, 1939, 1940, 1941)

Alberta

- Cross (1936, 1938, 1939a, 1939b, 1941a, 1941b, 1942, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952)

Saskatchewan

- Bentley (1950, 1951, 1952)
- Douglas (1946, 1947, 1948b, 1949)
- Uhrich (1937, 1938, 1939, 1940a, 1940b, 1941, 1943, 1944, 1945)

Manitoba

- Griffith (1938a, 1938b, 1939, 1940)
- McLenaghan (1941, 1942, 1943)
- I. Schultz (1944b, 1946, 1947, 1948, 1949b, 1950, 1951)

Appendix C

Prefrontal Bilateral Leucotomy Technique Performed by Harold S. Evans

The surgical technique—a “Prefrontal Bilateral Leucotomy”—performed by Harold S. Evans at the Brandon Hospital for Mental Diseases (n.d.) was described in most of the patient files viewed for this project (specifically, operations from 1949, 1952, 1953, 1954, and 1956). It is likely that this procedure was used from at least 1944 onwards given that this technique closely resembled Walter Freeman and James Watts’ standard prefrontal lobotomy technique published in 1942 (see Freeman et al., 1942). In each of the patient files viewed for this project, a detailed description of the surgical procedure performed by Evans was provided:

It is necessary to identify the coronal suture. The upper end of the suture is located by measuring 13 cms. from the glabella posteriorly in the line of the longitudinal sinus. The lower end of the suture was located 6 cms. up from the zygomatic process and 3 cms. posteriorly to the lateral rim of the orbit. These two points are joined together with gentian violet solution. An incision 3 cms. long was made in the plane of the coronal suture with its centre 6 cms. above the zygomatic process [see Figure 3.2 for depiction of these coordinates]. This was carried down through the skin and temporal muscle using a trephine 1.5 cms. in diameter. A button of skull is removed. The dura was incised by crucial incision. The brain was exposed in a similar manner on the opposite side.

Three landmarks are identified: the area immediately anterior to the lateral ventricle, the falx cerebri, and the sphenoidal ridge. The leucotome is inserted through the incision made with its point directed at the burr hole on the opposite side so as to pass anterior to the anterior horn of the lateral ventricle and posterior to the free margin of the falx cerebri. The second landmark, the falx cerebri, was located in this plane at a depth of 6 cms. so it was necessary to withdraw the leucotome 1 cm. The third landmark, the sphenoidal ridge, was located at a depth of 4.5 cms. by inserting the leucotome at an angle of 45 degrees toward the base of the skull in the plane of the coronal suture. This landmark enables the operator to keep in the anterior fossa.

The surgeon then cuts the fibres of the frontal lobe with surface of the brain as the axis leucotome is swung downwards until the floor of the frontal fossa was reached and the point withdrawn. This severs the white matter in the lower half of the frontal lobe. The leucotome was reinserted to a depth of 5 cms. and with the surface of the brain as the axis, the leucotome was swung up as far as the opening of the skull permitted. These procedures were repeated on the opposite side. The wounds were closed by suturing the muscle and scalp and bandage applied. (Brandon Hospital for Mental Diseases, n.d.)

Appendix D

Number of Psychosurgical Operations Performed in Western Canada, 1943 to 1973

After carefully reviewing of all sources encountered during this project, I estimate that there were at least 1,240 operations performed in western Canada between 1943 and 1973 (see Table D.1 for a breakdown by province). It is important to note that the overall estimate and those provided for each province only represent the number of surgeries reported in annual reports, published studies, the media, and/or in archival documents (e.g., correspondence, reports). Given that only British Columbia and Manitoba reliably reported numbers throughout most of the period in which the treatment was used, the estimates for these provinces most likely approximate the actual number of surgeries performed. In the case of Alberta and Saskatchewan, annual reports infrequently provided the number of surgeries, let alone other treatments used.^{127,128} Therefore, the numbers presented for these two provinces only reflects the number

¹²⁷ Finding information on the use of psychosurgery in Alberta was especially problematic as many of the annual reports were vague about the use of treatments in general. If psychosurgery was mentioned, the number of surgeries almost never appeared. For instance, in the 1949 annual report for Ponoka, R.R. MacLean (1951) stated: “A limited number of pre-frontal leucotomies were performed” (p. 126). There also vague mentions elsewhere about the treatment’s use by neurosurgeons in Calgary (e.g., Hepburn, 2001).

¹²⁸ Locating information on the number of surgeries conducted in Saskatchewan also proved challenging. In the annual reports, it was not until the 1950-51 fiscal year that there was any indication that psychosurgery was even being done at the hospitals in North Battleford and Weyburn (McKerracher, 1952). In subsequent reports, treatments in general were rarely mentioned in the reports, especially for Weyburn (e.g., Lawson, 1955; McKerracher, 1953). When they were mentioned, numbers were not always provided. For instance, in the 1952-53 annual report, McKerracher (1954a) stated “Two series of leucotomies were performed with satisfactory results” (p. 80).

reported by available sources (including secondary sources in the case of Alberta). Below the table, a list of the sources used in creating this estimate are provided.

	British Columbia	Alberta	Saskatchewan	Manitoba	Total
Number of Operations	350	96	197	597	1,240

Table D.1. Breakdown by province of the number of psychosurgical operations performed in western Canada from 1943 to 1973. The sources used in providing these estimates are provided below.

Sources Used for the Estimate of Surgeries in Each Province

British Columbia: Provincial Mental Hospital, Essondale

- Caunt (1957, 1959)
- Crease (1947, 1948, 1949, 1950a, 1950b)
- A.E. Davidson (1948, 1951b, 1952b)
- Kenning (1957)
- McNair (1953, 1955a, 1955b, 1956)
- Turnbull (1948b, 1995)

Alberta: Provincial Mental Hospital, Ponoka

- Kinnear (1985)
- Lee (1979)
- R. R. MacLean (1949)
- Malacrida (2015)

Alberta Provincial Mental Institute, Edmonton

- MacPherson (1956a)

Saskatchewan: Saskatchewan Hospital, North Battleford

- “Conference of the staff” (1947)
- Lawson (1951a, 1955)
- McKerracher (1953, 1954a, 1954b)

Saskatchewan: Saskatchewan Hospital, Weyburn

- Dempson (1947)
- Dillenberg (1953)
- McKerracher (1949b)

Manitoba: Brandon Hospital for Mental Diseases^{129,130}

- “Brandon Mental Hospital leucotomy service” (n.d.)
- Schultz and Henderson (1959)

¹²⁹ At the Brandon Hospital for Mental Diseases there were “two very disturbed patients” with tuberculosis (TB) who received leucotomies in 1955 “with a hope that the patients’ tension would be reduced, over-activity inhibited, so that the patient would secure more rest” (S. Schultz, 1956, p. 178). It is not clear whether these two patients were included in the 311 operations conducted at Brandon (see “Brandon Mental Hospital leucotomy service,” n.d.; Schultz & Henderson, 1959). These two surgeries were not added to the estimate provided in Manitoba in case they were among the 311 already reported.

¹³⁰ As explained in Chapter 2, no surgeries were conducted at the Brandon Hospital for Mental Diseases between December of 1944 and June of 1948 (“Brandon Mental Hospital leucotomy service,” n.d.).

Manitoba: Selkirk Hospital for Mental Diseases

- E. Johnson (1958)