

The Connection Between Mental Illness and Youth Violence in Canada

Capstone Project: Final Research Report

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BLES

Research Project: LAWS-4003

Justice Institute of British Columbia

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April 8, 2022

Abstract

This research paper aims to address high crime rates among Canadian youth by determining whether or not mental illness is at the root of this issue. The question of how pre-existing mental illnesses contribute to youth violence in Canada is answered through a critical appraisal of existing literature. Through an examination of various sources, several themes are identified in terms of factors leading to youth offending, including personal victimization, poverty and substance abuse. Thus, it is determined that mental illness does in fact have a causal connection to youth violent offending. It is also identified that the risk of offending is heightened when an individual has a dual-diagnosis. Specifically, substance abuse problems occurring simultaneously with any other form of mental illness significantly increases the risk that an individual will offend. Furthermore, important risk factors for a dual-diagnosis are identified, as well as preventative and protective measures.

Keywords: mental illness, mental disorder, mental health, substance abuse, dual diagnosis youth violence, youth offending, Canadian youth

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The Connection Between Mental Illness and Youth Violence in Canada

Background

The Canadian Mental Health Association [CMHA] defines a mental illness as disturbances in thoughts, feelings and perceptions that are severe enough to affect day to day functioning, such as anxiety, depression, bipolar disorder, anorexia, substance abuse and others (CMHA, 2021). For many young individuals, mental health issues and criminal offending are inextricably linked. Several studies have demonstrated that mental disorders are a statistically significant problem for youth offenders in Canada. More specifically, over 90% of justice-involved youth meet minimal diagnostic criteria for at least one disorder, and rates of serious mental disorders have been estimated at one in four justice-involved youth (Drerup et al., 2008; Unruh et al., 2009; Shufelt & Cocozza, 2006). Another aspect of this multi-faceted issue is that only one in five Canadian children who need mental health services actually receives them (Public Safety Canada, 2012).

Research Question and Rationale

However, despite these shocking statistics, there is a lack of formal research on whether or not mental illness is in fact the cause of violent youth offending. It is known that incarcerated youth have high rates of mental illnesses, but correlation does not always equal causation. Therefore, the purpose of this study was to uncover which specific mental illnesses lead to violent youth offending, or if there is in fact a causal link between the two. Through this, early intervention and treatment may be used to prevent criminal activity and/or reoffending. The research question to be answered is: how do pre-existing mental illnesses contribute to youth

violence in Canada? Additionally, a sub-question posed is: are certain mental health problems linked to specific sub-categories of violent offending?

Philosophical Worldview

The underlying philosophical worldview in this research proposal is transformative. The transformative worldview emphasizes the importance of accounting for marginalized groups, such as those with a mental disability (Creswell & Creswell, 2017). Although those with a mental disability have not been discriminated against as much as other minority groups, such as LGBTQ+ individuals or Indigenous peoples, they have historically been misunderstood and subject to unfair treatment (Barnes, 2014). Therefore, those with a mental disability deserve more recognition and opportunities for treatment. This worldview shaped the approach to this research proposal, as it influenced a focus on those with mental disabilities, but more specifically the way these disabilities unfairly predispose individuals to criminal offending. And in turn, these individuals may be blamed and punished, rather than given appropriate help for their condition. Additionally, just as the transformative worldview does, this research pays attention to the opinions of the participants (youth offenders) and attempts to consider their perspectives when it comes to how mental health problems impact their well-being and actions (Creswell & Creswell, 2017). More specifically, the results of qualitative data with meaningful statements from youth offenders about their experiences with mental health was sought out. Overall, this research attempted to provide a voice for youth offenders, while uncovering how their mental disabilities impacted their offending.

Design and Methodology

Research Design

This study is a critical appraisal of existing literature. More specifically, existing studies that are related in some aspect to the research question, and can assist in answering it, have been analyzed. There was no need for primary or secondary research to be conducted, as it was confirmed through the extensive search process outlined below that there is sufficient information contained within existing sources. Furthermore, due to discrepancies in the literature, a critical appraisal was best suited for this study. This allowed for similarities, differences, and gaps in the literature to be identified with a broad range of participants and locations examined.

Search Methodology

In order to answer the research question aforementioned, as well as the sub-question posed, both the JIBC library (EBSCO Database) and Google Scholar were searched. The table below documents the number of hits with the key-words used. Following the table is the inclusion/exclusion criteria, and a further breakdown of how the final articles were selected.

Appendix A:

Initial Database Keyword Search and Hits

Database	Keyword	# of Hits
JIBC Library (EBSCO)	Youth violence OR offending	149,434
Google Scholar	Youth violence OR offending	125,000
JIBC Library (EBSCO)	Causes of youth violence OR offending	74,051
Google Scholar	Causes of youth violence OR offending	118,000

Database	Keyword	# of Hits
JIBC Library (EBSCO)	Mental health or mental illness or mental disorder or psychiatric illness AND youth violence or offending	137, 578
Google Scholar	Mental health or mental illness or mental disorder or psychiatric illness AND youth violence or offending	34,100

Note. A breakdown of the initial keywords searched through each database and the number of hits resulting. See appendices for further description.

Inclusion/Exclusion Criteria

Numerous inclusion/exclusion criteria needed to be applied to the sources identified in order to narrow down the amount of literature provided. Inclusion criteria included peer-reviewed, scholarly, full-text articles or books, written in English, dated from 2003 onwards, that took place in Canada, and that included information on mental disabilities in criminal youth. The reason for choosing sources dated from 2003 onwards is that the Youth Criminal Justice Act [YCJA] was implemented then, and there has since been a change in the foundations of youth justice (Tustin & Lutes, 2019). Additionally, the scope of this study was limited to Canada because youth justice functions differently here than in other parts of the world. Exclusion criteria included sources that were not available full-text, not in English, dated prior to 2003, did not take place in Canada, and did not specifically discuss mental health disorders in violent youth. The following table demonstrates the number of hits using the revised search with the inclusion/exclusion criteria applied.

Appendix B:

Secondary Database Keyword Search and Hits

Database	Keyword	# of Hits with criteria applied
JIBC Library	Youth Violence OR Offending	679

Database	Keyword	# of Hits with criteria applied
Google Scholar	Youth Violence OR Offending	4,600 (unable to input all criteria)
JIBC Library	Causes of Youth Violence OR Offending	106
Google Scholar	Causes of Youth Violence OR Offending	4,600 (unable to input all criteria)
JIBC Library	Mental health or mental illness or mental disorder or psychiatric illness AND youth violence or offending	13
Google Scholar	Mental health or mental illness or mental disorder or psychiatric illness AND youth violence or offending	13,900 (unable to input all criteria)

Note. A breakdown of the keywords searched through each database, with search criteria applied, and the number of hits resulting. See appendices for further description.

Final Article Assessment and Selection

Once articles that fit the criteria and scope of the study were narrowed down, the next step was to select the most relevant articles that provided information on several facets of the research question. More specifically, literature that provided information on mental illness and its relation to Canadian youth offenders was ideal, not just one topic or the other. In order to do this, application of the inclusion/exclusion criteria was critical. This was completed through the use of a top down approach. First, the articles' titles were reviewed to determine relevance. If the title was found to match the criteria, the abstract and conclusion were then reviewed. Then, based on whether these articles continued to pertain to the scope of the study, they were either discarded or read in entirety.

Once the final articles were chosen it was critical to assess their reliability, accuracy and validity, as well as identify common themes among them. This meant checking the study location, participant sample, results, and limitations - all with the research question and scope of

the present study in mind. Likewise, any gaps in the literature or contradicting information was noted. Not all of the literature discussed every aspect of the research question, which is not surprising given the depth of the question at hand and the fact that the research ideally would have taken place in Canada. Thus, some articles that had meaningful insights into at least one sub-topic were chosen for their own particular benefit. Additionally, due to a lack of research on this topic specifically in Canada, a few studies that answered the research question but took place elsewhere were chosen. Additional sources were necessary to fill identified gaps or back up facts, so these were obtained from grey literature. This includes annual reports and data from the Statistics Canada website, or other similar credible sources. Overall, the result of this extensive search was 15 articles being selected as the foundation of this critical appraisal, with several additional sources utilized.

Certain techniques used to gather and analyze potential studies for answering the research question proved more useful than others. More specifically, the JIBC Library (EBSCO) provided a more narrow and targeted results list than Google Scholar was able to. This is likely because Google Scholar is unable to filter the results list in terms of location, publisher, language, source type and more, whereas the JIBC library (EBSCO) can. Instead, Google Scholar allowed only for a keyword search and date range to be selected. So, in the future, spending more time searching through the JIBC Library (EBSCO) and less on Google Scholar would be beneficial. Aside from this, the search and analysis methods used for this study worked well. A top down approach, with gradual discard of less applicable studies, was a successful method to obtain the necessary information to answer the research question.

Literature Review

As previously mentioned, the foundation of this research paper is based on the findings of 15 different studies, each with a degree of applicability to the research question. Following is a summary of each of these studies, with an emphasis on their key findings and relevancy to the scope of the research paper.

Summary of Articles

Boyce et al. (2015) conducted a study, published by Statistics Canada, that aimed to collect and analyze information on the mental health status of Canadians. Majority of the data presented in the study was collected through the Canadian Community Health Survey-Mental Health [CCHS-MH] (2012). More specifically, the researchers collected data from people aged 15 and older across all 10 provinces. The results indicated the likelihood of youth (age 15-24) coming into contact with police because of a mental or substance use disorder is significantly higher than for those aged 45 and above with the same disorders (Boyce et. al., 2015).

Limitations to this study include the lack of data from Aboriginal peoples or persons living on reserves, as well as full-time members of the Canadian Forces and the institutionalized population. Regardless, this study provided insightful information and statistics regarding the mental health of Canadians, and makes an effort to specifically talk about youth.

Butters et al. (2011) analyzed youth violent victimization and its impacts across three countries: Canada, the United States [US] and the Netherlands. The authors sought to uncover both the immediate and long-term repercussions of violent victimization, but more specifically the effects the victimization had on their development, mental health and well-being. Through the use of Drugs, Alcohol and Violence International [DAVI], samples of the youth population

(ages 14-17 years) were taken, and the individuals selected were given standardized modes of interview and questionnaires, professionally translated into the appropriate language. The results of this study indicated the tendency for females to internalize their feelings, whereas males would more often externalize them (Butters et al., 2011). This means that females were more likely to suffer from diminished mental health, including feeling symptoms depression and/or anxiety; but males were more likely to act out violently, both in retaliation and in the long-term. Numerous individuals began carrying a weapon for their personal safety after the fact, which in turn lead to them committing violent acts (Butters et al., 2011). Despite there being various locations analyzed, the authors specified the key results for Canada, and therefore they were easily applied to the study. Overall, this article provided insightful data on one of the causes of youth violence - one's own victimization and consequent mental health issues.

Carrington (2013) analyzed trends in youth crime in Canada from 1984 to 2011. This was done by looking into the seriousness of offences that young people have been formally charged with. Four indicators of seriousness were used: Statistics Canada crime seriousness weights, the proportion of youth accused of an indictable offence, a fivefold classification of offences, and a selection of high volume offences. The results in all four categories indicated a substantial downward trend in the seriousness of youth crime (Carrington, 2013). This is suggested to be because of a large decrease in the number of youth accused of break and enter, and a correspondingly large increase in the proportion accused of the minor offences of common assault, cannabis possession, and offences against the administration of justice. Thus, reported youth crime in Canada has shown to become proportionally more violent, but less serious overall (Carrington, 2013). This information was useful in order to demonstrate that many youth in

custody have committed violent offences, and it correlates with other sources giving statistics on mental illness among incarcerated Canadian youth. One noteworthy limitation is that this study begins its analysis in 1984, before the implementation of the YCJA. However, the final analysis of the data ended in 2011, and therefore it was still useful in providing relevant information on the research topic.

Elbogen & Johnson (2009) conducted a study to uncover the relationship between SMI - such as schizophrenia, bipolar disorder and major depression - and violent behaviour. The researchers used a longitudinal data set from the NESARC representative of the US population. The results demonstrated that violent behaviour was higher for people with SMI, but only when coupled with substance abuse (Elbogen & Johnson, 2009). Instead, the researchers suggested that severe mental illness alone does not predict future violence, but rather it is associated with historical, clinical, dispositional, and contextual factors (Elbogen & Johnson, 2009). This study is directly related to the research question and thus was very valuable. However, it is important to note that the research takes place in the US with an adult population.

Gretton & Clift (2011) analyzed the specific mental disorders and mental health needs of incarcerated Canadian youth. Using various screening instruments and diagnostic interview schedules, psychiatric diagnoses, abuse history and aggressive symptoms of Conduct Disorder [CD] were assessed. The results indicated that nearly all Canadian youths (91.9% of males and 100% of females) met the criteria for at least one mental disorder (Gretton & Clift, 2011). Substance abuse and dependence disorders were highly prevalent (85.5% of males and 100% of females). Aggressive forms of CD were common, as was exposure to physical abuse and/or sexual abuse. Female youths had significantly higher odds of presenting with substance abuse/

dependence disorders, suicidal ideation, sexual abuse, Post-Traumatic Stress Disorder [PTSD], depression, anxiety, Oppositional Defiant Disorder [ODD], and multiple mental disorder diagnoses. Lastly, male youths had significantly higher odds of presenting with aggressive symptoms of CD (Gretton & Clift, 2011). Overall, rates of mental disorder among this sample of violent young offenders are statistically significant and pose a serious issue. This study solidified the connection between mental disorders and violent criminal activity, provided specific statistics and diagnoses, and thus was useful to answer the research question. Likewise, male, female and various ethnicities of youths were proportionately represented. The only noteworthy limitation is the possible underestimate of mental illness rates, as noted by the authors, since the only tool used to assess this was the diagnostic interview. More details on specific categories/symptoms of mental illness would be useful.

Guebert & Olver (2014) investigated the relationship between substance use, mental health concerns, and how these things interacted with dynamic risk factors, which in turn was used to predict reoffending among incarcerated Canadian youth. The study investigated 186 Canadian youth charged with serious/violent offences in the categories of psychopathology, substance abuse, risk and recidivism through the use of youth court records (Guebert & Olver, 2014). The results indicated a strong connection between substance abuse and the likelihood of general, nonviolent and violent recidivism occurring. Likewise, youth with disruptive behaviour disorders, substance use concerns alongside another disorder (dual diagnosis), or with two or more disorders evidenced more serious criminogenic need profiles (Guebert & Olver, 2014). However, mood, anxiety, and cognitive disorders alone were found unrelated to criminogenic risk. With the exception of conduct disorder and substance use pathology, mental health concerns

tended not to predict recidivism (Guebert & Olver, 2014). The data uncovered in this study analyzed an equal amount of female and male Canadian youth, and is directly related to the research question posed. One limitation, however, is that the sample of the study is said to reflect the Aboriginal/non-Aboriginal population of the youth offenders in Saskatchewan, which has a disproportionately high number of incarcerated Indigenous youth. In turn, this sample may not adequately reflect the young offender population in all of Canada, and instead provide data more tailored to Aboriginal youth. Regardless, this study provided insightful information, and when balanced with the results of other studies it helped answer the research question.

Leschied (2011) attempted to uncover what factors can be used to predict violence among Canadian youth. More specifically, through an analysis of exiting literature, both individual and systemic factors - and how they interact with each other - were assessed. It was determined that individual factors that predict violence include: pregnancy and delivery complications, emotion-related disorders, hyperactivity, concentration problems, restlessness, risk taking, aggressiveness, early initiation into violent behaviour and beliefs, and attitudes supportive to violent behaviour (Leschied, 2011). Additionally, certain systemic factors can interact with the aforementioned individual risk factors to predict an even higher likelihood of offending. These include: early family conditions related to poverty, abuse, a generally poor relationship between child and parent, and parental criminality (Leschied, 2011). Supportive peers also play a role in predicting youth violence. The number one predictor of youth violence, however, was child and youth violent victimization - either as a result of family-based maltreatment or peer on peer violence. This then increases the likelihood a child/youth will develop some form of mental health disorder, and the presence of a mental health disorder in turn increases the risk that a child or

youth will act out violently (Leschied, 2011). Overall, this article provided evidence of a specific connection between mental illness and violence, and the root causes of such mental illness.

Therefore, this was extremely applicable to the research question and scope of the paper.

Leschied et al. (2008) analyzed the effects of early childhood and adolescent experiences and their relation to adult criminal involvement in Canada. Through examination of 38 existing studies, it was discovered that there is a direct relationship between anxiety, depression and other mood disorders and offending (Leschied et al., 2008). More specifically, violent victimization increased the odds of a youth forming a mental health disorder, which in turn increased the risk of violent behaviour as an adult. Factors that most frequently predicted criminal activity include: aggression, attentional problems, motor restlessness, attention seeking, symptoms of depression, withdrawal, anxiety, self-deprecation, and social alienation (Leschied et al., 2008). Important predictors also included family factors such as negative parenting strategies (coerciveness, authoritarian behaviours, lack of child supervision) and family structure variables (witnessing violence, inter-parental conflict, family stressors, and poor communication) (Leschied et al., 2008). Although this article produced a substantial amount of useful information, one limitation is that it focused on the effects of adverse childhood experiences on adult criminality, rather than youth. However, the intervention recommendations involved implementation at a young age, thus the information in this article was relevant. Regardless of whether the criminal behaviour occurred as an adult or youth, it stemmed from early childhood experiences and requires early intervention to prevent.

In MacLellen's (2017) article, she attempted to uncover how Canadian youth's socioeconomic, mental health history and offending history interact with each other. To do so,

archival data was drawn from 281 young offenders' files from an urban-based court clinic. The results were that over three quarters of the sample had at least one mental health diagnosis, with over half reporting at least two separate diagnoses (MacLellen, 2017). One in five of the offences committed by a youth that lead to their court clinic referral was directly related to a mental health disorder, showing an under recognition of the root of the problem. Youth who lived in moderate to high levels of poverty were more likely to have experienced persistent mental health concerns, and were more likely to enter and remain in the youth justice system as offenders (MacLellen, 2017). Intervention strategies recommended include programs that address both mental health needs and criminogenic needs (MacLellen, 2017). One noteworthy limitation is that the sample of this study is limited to one clinic in Southern Ontario, so it is difficult to say whether the results are applicable Canada-wide. Regardless, this study provided significant data directly related to the research question and fit the scope of the paper.

Manion (2010) looked into the current/relevant statistics surrounding mental illness in Canadian youth. Acknowledging that it is a statistically significant problem, Manion then conducted research on whether or not the current interventions are effective by examining existing literature. It was stated that youth mental health is not being recognized as the priority that it should be, and suggestions for future change were presented, including standardization of the best existing practices, and integration of those practises across the full continuum of care (promotion, prevention, early identification, early intervention, treatment, rehabilitation, and chronic care) (MacLellen, 2017). This article was useful for the statistics it provided. However, it focused on Canadian youth in general and not solely youth offenders. Regardless, it offered insightful information on a component of the research question.

In a study conducted by McCormick et al. (2015), the authors began with recognition that individuals with mental illness have historically been significantly overrepresented in the criminal justice system in Canada. It was then stated that two categories of the existing literature on the topic would be examined, which have previously remained independent of one another. The first category was based on clinical literature and focused on associations with psychopathology, and the second was focused on forensic rehabilitation (McCormick et al., 2015). Through this, similarities, differences and gaps in the literature were identified, which then lead to recommendations for the future in order to prevent criminal offending as a result of mental illness. Overall, an alignment of current policy and practice was recommended. The authors urge researchers and policymakers to remember that the two distinct approaches share a common goal: to improve treatment for individual offenders and improve the functioning of the system (McCormick et al., 2015). The only limitation to this study in the context of the research paper was that it only focused on a portion of the topic. Otherwise, it provided relevant information and statistics on current policy and practice surrounding offenders with mental illness.

Peterson-Badali et al. (2015a) examined multiple aspects of the intersection between mental health and Canadian youth justice, in both policy and practice, from a psychological perspective. Through an analysis of various existing literature, it was assessed whether or not mental illness is a legitimate risk factor for offending, what is currently being done to address it, and what could be improved upon. The article suggested that some aspects of mental illness are directly related to risk for criminal behaviour, such as anger, learning issues or substance abuse; whereas others, like mood disorders and cognitive functioning levels, may have more of an

indirect influence (Peterson-Badali et al., 2015a). Overall, regardless of whether the role is direct or indirect, mental health functioning is of critical importance when it comes to prevention of offending among youth. It is also noted that although mental health is regarded in numerous contexts in the YCJA - such as Intensive Rehabilitative Custody and Supervision [IRCS] or Intensive Support and Supervision Program [ISSP] referrals, and s.34 assessments - the day to day functioning of the youth justice system seldom involves these. Recommendations given to address such issues include a widespread mental health screening, as well as increased use of the YCJA sections that allow for specialized assessment and treatment of youth with mental health issues (Peterson-Badali et al., 2015a). Overall, a substantial portion of this article applied directly to the research question.

Peterson-Badali et al. (2015b) examined the connections between risk assessment, treatment, and recidivism by focusing on individual criminogenic needs, specifically for youth offenders in Canada. To do so, data from 148 youth who completed a court-ordered assessment at a mental health centre in Toronto was used, including an analysis of clinical files and various assessment reports. It was discovered that dynamic criminogenic needs, including mental health problems, significantly predicted reoffending (Peterson-Badali et al., 2015b). Additionally, meeting individual needs in treatment was associated with decreased offending (Peterson-Badali et al., 2015b). However, this is something that the youth justice system in Canada has been lacking in. Even in areas where interventions are available, many youth do not receive services matched to their needs, thus contributing to reoffending (Peterson-Badali et al., 2015b). Limitations to this study included the fact that the sample group was primarily male, and did not include many indigenous youth (primarily Black and White individuals). However, when

balanced with other sources, which accounted for indigenous youth on the same topic, this source was extremely insightful and applicable to the research question.

The Mental Health Commission of Canada [MHCC] (2017) conducted a study to gather information on the number of people in Canada living with mental health problems and illness. The study was based on a wide range of existing studies in Canada and internationally. Overall, the findings demonstrated that, in 2016, more than 7.5 million people in Canada were likely facing one of the common mental illnesses: major depression, bipolar disorder, alcohol use disorders, social phobia and/or depression (MHCC, 2017). The report also revealed that nearly 1 million adolescents aged 13 to 19 were living with a mental health problem or illness in Canada (MHCC, 2017). More specifically, for this group of population, substance use is the most frequent problem (9.9%), followed by anxiety (9%), mood disorders (5.2%), Attention Deficit Hyperactivity Disorder (ADHD) (3.9%), Oppositional Defiant Disorder (ODD) (1.9%) and conduct disorders (1.9%) (MHCC, 2017). Given the fact that this study covered a wide range of the Canadian population, including Canadian youth, it was extremely applicable to answer the research question. However, one limitation is the lack of discussion on mental illness specifically related to violent crime. Nonetheless, this article produced relevant information within the perimeters of the study.

Van Dorn et al. (2012) conducted a study in order to uncover whether or not there is a causal connection between severe mental illness [SMI] and violence. For the study, the researchers extracted data from the National Epidemiologic Survey on Alcohol and Related Conditions [NESARC]. The results indicated that those with SMI, regardless of substance abuse status, were significantly more likely to be violent than those with no mental or substance use

disorders (Van Dorn et al., 2012). Additionally, those with both mental illness and substance use disorders had an even higher risk of violence. The researchers also highlighted the importance of premorbid conditions, and other contemporaneous clinical factors, in predicting the likelihood of violent behaviour (Van Dorn et al., 2012). Although this study relied on a sample population from the US, it was useful for the purposes of this research paper. The researchers uncovered a statistically significant relationship between mental illness and violent offending, and thus this study helped answer the research question.

Results

Altogether, there were several overarching themes and ideas presented in the aforementioned studies with regard to the effects of mental illness on violent offending in Canadian youth. Some research findings suggested a direct connection between certain categories of mental illness and violent offending (Leschied, 2011; Peterson-Badali et al., 2015a; Peterson-Badali et al., 2015b; Van Dorn et al., 2012). Other studies suggested that mental illness alone is not sufficient to predict violent offending, however when coupled with other societal factors or pre-existing conditions it is (Butters et al., 2011; Elbogen & Johnson, 2009; Guebert & Olver, 2014; Leschied et al., 2008; MacLellen, 2017). Additionally, some studies concluded that those with mental illness are significantly more likely to reoffend than those with no pre-existing conditions, for a variety of reasons (Guebert & Olver, 2014; Peterson-Badali et al., 2015b). Overall though, it was important to analyze the outcomes of each individual study with their relevance to the research question and scope of the paper. Therefore, the results of some of the studies were more valuable than others.

Mental Illness and Violence

In terms of a direct causal connection between mental illness and violence, the findings varied. Guebert & Olver's (2014) study suggested that mental illness alone cannot be used to predict violent offending. However, the authors noted that youth with a dual diagnosis, meaning two or more mental illnesses occurring simultaneously, displayed more serious criminogenic need profiles (Guebert & Olver, 2014). This essentially means that an individual with depression alongside substance abuse tendencies, for example, is highly likely to offend and reoffend. Guebert & Olver (2014) explicitly note, though, that mood disorders alone are not related to criminal offending, which goes against the findings of various other studies. However, Guebert & Olver (2014) conducted their study in Saskatchewan, with a high Aboriginal population. So, given the disproportionately high rates of offending and incarceration among Aboriginal peoples, this study needed to be balanced with the non-Aboriginal population of Canada in order to determine its accuracy (Guebert & Olver, 2014).

Similarly, Peterson-Badali et al. (2015a) suggested that, while some aspects of mental illness are directly related to offending, mood disorders and cognitive functioning have more of an indirect influence. This means that mood disorders on their own cannot predict offending, but when coupled with other factors they do (Peterson-Badali et al., 2015). Peterson-Badali et al. (2015) did not explicitly deny a connection between mood disorders and offending, but instead suggested substance abuse alone is a more accurate factor in predicting offending. However, substance abuse is categorized as a mental illness by the CMHA (CMHA, 2021). Therefore, this implies a direct connection between mental illness and offending, with a specific emphasis on the sub-category of substance abuse being the most accurate predictor for the sample of this study.

Conversely, Leschied (2011) suggested that emotion related disorders are in fact directly related to criminal offending. More specifically, the results of this Canada-wide study demonstrated that a reoccurring individual risk factor for offending is often emotional/mood disorders, which is a sub-category of mental illnesses (Leschied, 2011). This information directly fit the scope of the study, and the findings were Canada based with a balanced population, so this was very applicable information in terms of accurately answering the research question. However, the findings contrast those of the previously noted studies.

Another study by Peterson-Badali et al. (2015b) conducted a more in-depth analysis of mental illness as a predictor of offending and re-offending, with an emphasis on offender needs. The findings were that an array of mental health problems specifically predicted both offending and re-offending. Additionally, proper treatment was associated with a decrease in offending (Peterson-Badali et al., 2015b). Therefore, this study solidified the link between mental illness and offending, and further strengthens that connection by demonstrating how proper treatment to address the offender's mental illness reduces recidivism (Peterson-Badali et al., 2015b). Furthermore, the sample of this study was strictly Canadian youth, which fit the scope of the paper. However, the authors noted one of the limitations was the lack of Indigenous representation (Peterson-Badali et al., 2015b). But when coupled with the Guebert & Olver (2014) study findings, which focused more on Indigenous Canadian youth, these two studies were extremely useful in answering the research question.

The last study that explicitly noted a causal connection between mental illness and violent crime was one conducted by Van Dorn et al. (2012). In this study, the findings indicated a direct connection between SMI and violent offending. Furthermore, when coupled with

substance abuse, SMI was shown to be an even more consistent predictor of violence (Van Dorn et al., 2012). The authors also made explicit connections between other clinical factors and the likelihood of violent behaviour occurring (Van Dorn et al., 2012). Although this study took place in the US, it directly related to the research question and supported the findings of other Canadian-based studies, therefore it was beneficial for this research paper.

Substance Abuse

Several studies note substance abuse, which is a sub-category of mental illness, as a consistent predictor of violent offending (Elbogen & Johnson, 2009; Guebert & Olver, 2014; Van Dorn et al., 2012). More specifically, Elbogen & Johnson's (2009) study looked into the relationship between schizophrenia, bipolar disorder, major depression and violent behaviour. Although the results indicated a causal connection between SMI and violence, this was only when coupled with substance abuse (Elbogen & Johnson, 2009).

Likewise, Guebert & Olver's (2014) study emphasized how substance abuse, when coupled with a another diagnosis, is a significant predictor of offending. Although these authors suggested the dual-diagnosis does not need to include substance abuse to predict reoffending, those with substance abuse as one of two or more simultaneously occurring mental illnesses tended to offend more than others (Guebert & Over, 2014). As mentioned though, this study focused solely on an Indigenous youth population in Saskatchewan, so this was considered when interpreting the results (Guebert & Over, 2014).

Van Dorn et al. (2012) had similar findings in their study. Though these researchers did conclude that SMI alone is sufficient to predict offending, when coupled with substance abuse

this risk was shown to be severely heightened (Van Dorn et al., 2012). The data from this US based study correlates with Canadian studies and likely translates over to Canadian youth.

Victimization

Another reoccurring theme among the literature was that of personal victimization, and its relation to mental illness and violence. Multiple studies suggested that violent victimization increases the odds of the youth forming a mental health disorder, which in turn increases the risk of violent behaviour (Butters et al., 2011; Leschied et al., 2008; Leschied, 2011). In Butters et al. (2011) analysis of youth violent victimization and its impacts across three countries, including Canada, a statistically significant connection between those who have been a victim of crime subsequently developing a mental illness, and then going on to commit violent crimes themselves was uncovered (Butters et al., 2011). In this study, one of the factors that lead to this is that previous victims of crime began to carry a weapon for personal safety. Then, they ended up using that weapon for a variety of reasons other than just personal protection (Butters et al., 2011). Additionally, the mental illnesses that stemmed from the victimization likely contributed to the violent outbursts and actions, as these individuals were not functioning at a normal cognitive level (Butters et al., 2011).

Leschied et al. (2008) found the same connection between victimization, the development of a mental illness, and subsequent violent offending in their study. Firstly, the authors noted that there is a direct relationship between anxiety, depression and other mood disorders and offending. Then, a deeper investigation into the roots causes of such disorders revealed that many of the study participants were victimized themselves at a young age (Leschied et al., 2008).

Leschied (2011) then conducted further research into the facets of mental illness and violence. In a 2011 study, Leschied identified a number of individual factors that predict violence, including emotion-related disorders. The number one predictor in this study, though, was violent victimization as a child (Leschied, 2011). This was said to include either family violence or peer on peer violence. Furthermore, Leschied (2011) noted that two or more factors coexisting predict an even higher likelihood of offending. Overall, there is significant research suggesting that violent victimization as a child increases the likelihood a mental health disorder will form, and that in turn increases the risk of violence.

Poverty

Other studies suggested a connection between poverty, mental illness and crime: that growing up poor can lead to mental illness, which therefore increases the likelihood of violent offending (Leschied, 2011; MacLellen, 2017). In Leschied's (2011) study, one of the systemic factors - when coexisting with an individual factor - that is shown to predict violence is living in conditions of poverty. Likewise, when MacLellen (2017) analyzed archival data from Canadian youth offenders, it was shown that youth living in poverty were more likely to develop a mental illness, and thus were more likely to enter and remain in the justice system as offenders.

Mental Illness and Re-offending

The final overarching theme in the literature is that mental illness significantly predicts re-offending (Guebert & Olver, 2014; Peterson-Badali et al., 2015b). Majority of the previously mentioned studies touch on the likelihood that those with mental illness will offend, often in a continuous cycle (Leschied, 2011; Peterson-Badali et al., 2015a; Peterson-Badali et al., 2015b; Van Dorn et al., 2012; MacLellen, 2017). However, certain studies conduct more in-depth

research as to why this is often the case. Guebert & Olver's (2014) study suggested that those with substance abuse problems are significantly more likely to participate in general, nonviolent and violent recidivism. Similarly, Peterson-Badali et al. (2015b) found a connection between dynamic criminogenic needs, including mental health problems, and reoffending. Both of these studies touched on the effectiveness of programs on treating those with mental illness. The findings demonstrated that often, individual needs specifically relating to mental illness are not met in the given treatment programs; but in the rare case that they are, this is associated with decreased offending (Guebert & Olver., 2014; Peterson-Badali et al., 2015b). So, recidivism rates among violent offenders with mental illness tend to be high, likely because of inadequate treatment.

Discussion

The Meaning of a Dual-Diagnosis

All in all, there were two consistent findings across the literature: mental illness is a statistically significant issue; and a dual-diagnosis (also referred to as comorbid or concurrent disorders) increases the risk of violence (Butters et al., 2011; Elbogen & Johnson, 2009; Guebert & Olver, 2014; Leschied, 2011; Leschied et al., 2008; Peterson-Badali et al., 2015a; Peterson-Badali et al., 2015b; MacLellen, 2017; Van Dorn et al., 2012). Some studies note that mental illness alone causes violence, but emphasize how that risk is heightened when there is a dual-diagnosis (Leschied, 2011; Peterson-Badali et al., 2015a; Peterson-Badali et al., 2015b; Van Dorn et al., 2012). Other studies suggest that mental illness alone does not cause violence; however, when occurring simultaneously with another condition or particular social factor, it does (Butters et al., 2011; Elbogen & Johnson, 2009; Guebert & Olver, 2014; Leschied et al., 2008;

MacLellen, 2017). Specifically, any form of mental illness, when coupled with substance abuse, significantly predicted reoffending in a variety of studies, regardless of the participant sample or location (Elbogen & Johnson, 2009; Guebert & Olver, 2014; Leschied, 2011; Peterson-Badali et al., 2015a; Peterson-Badali et al., 2015b; Van Dorn et al., 2012). This is called a dual-diagnosis, and refers to one or more co-occurring disorders, usually a mental health problem coupled with substance abuse issues (Robinson et al., 2021). Importantly, research suggests that having one diagnosis severely increases the risk of another. Individuals with a mental illness are severely more likely than the general population to abuse substances (National Institute on Drug Abuse [NIDA], 2020; Robinson et al., 2021). Specifically, about 50 percent of individuals with severe mental disorders are affected by substance abuse (Robinson et al., 2021, para. 3). And the same is true in reverse, about half of all alcohol and drug abusers will develop at least one serious mental illness throughout the course of their lives (NIDA, 2020; Robinson et al., 2021). One study that analyzed mental illness rates specifically among youth discovered that 79% of the participants who met criteria for one mental health disorder actually met criteria for two or more diagnoses; and a shocking 60% of these youth were diagnosed with three or more mental health disorders (Shufelt & Cocozza, 2006). Therefore, comorbid disorders, which are a statistically significant problem, increase the risk of youth offending. Because of this, mental illness has an undeniable connection to violent crime among youth in Canada.

Mental Illness and Substance Abuse: What Comes First?

Knowing that comorbid disorders pose a serious risk to violence levels among youth, it is important to determine whether one causes the other. When it comes to mental illness and substance abuse, what comes first depends on the individual (Canadian Centre on Substance

Abuse [CCSA], 2013; NIDA, 2020; Robinson et al., 2021). On one hand, mental health problems are associated with substance abuse later in life (CCSA, 2013). On the other hand, using certain substances can trigger the onset of a mental illness (CCSA, 2013). Whether people will initially develop one of these issues, and subsequently develop the other, depends on genetic and epigenetic vulnerabilities as well as environmental influences (NIDA, 2020).

Genetic and Epigenetic Influences

Research suggests that approximately 40-60 percent of an individual's vulnerability to substance abuse disorders is attributed to genetics (NIDA, 2020, p. 6). Genes may act indirectly by altering how an individual responds to stress, or by increasing the likelihood of novelty-seeking and risk-taking behaviours (NIDA, 2020). This essentially means that certain individuals are more likely to experiment with drug use in the first place, will respond more positively to a drug, are more likely to become dependent on it, and are more likely to experience severe withdrawal symptoms, all based on their genes (NIDA, 2020). Because of this, genetics are at the root of the problem when it comes to substance abuse problems and other mental illnesses. Additionally, research suggests that there are specific genes that can contribute to the risk for both mental disorders and addiction. Specifically, those that influence the action of neurotransmitters that are affected by drugs and commonly dis-regulated in mental illness, such as dopamine and serotonin (NIDA, 2020). It is also important to note that certain drug use is directly related to the development of a mental illness. For example, certain studies suggest that frequent marijuana use during adolescence is associated with increased risk of psychosis in adulthood, specifically among individuals who carry a particular gene variant (NIDA, 2020).

Similarly, there are important epigenetic factors that may influence the development of comorbid disorders. Epigenetics refers to the study of changes in gene activity that are not entirely dependent on gene sequence (NIDA, 2020). This means analyzing how external factors change the way genetic information is read and acted on by cells in the body (NIDA, 2020). Factors such as chronic stress, trauma, or drug exposure - especially in adolescence - can induce changes in gene expression, which in turn can negatively impact behaviour (NIDA, 2020). Essentially, external influences coupled with genetic predispositions make certain individuals more likely to develop substance abuse problems or other categories of mental illness.

Environmental Factors

Most vulnerability to comorbid disorders arises from complex interactions among multiple genes along with environmental influences. More importantly though, research has determined that “the epigenetic impact of environment is highly dependent on developmental stage” (NIDA, 2020, p. 7). This means that environmental factors can interact with genetic vulnerability during particular developmental periods and increase the risk for mental illnesses and addiction (NIDA, 2020). Thus, an individual's likelihood of developing a mental illness, or multiple, is majorly determined by the environment they grow up in and people they surround themselves with. Stress inducing situations and physical or emotional trauma significantly impacts how one functions later on in life (NIDA, 2020). This ties into the previously discussed ideas that poverty and victimization at a young age contribute to mental illness and subsequent violent offending (Butters et al., 2011; Leschied et al., 2008; Leschied, 2011; MacLellen, 2017). Any form of trauma or or adverse childhood experience puts individuals at a much higher risk for the development of a mental illness, with poverty and criminal victimization as no exception.

Prevention of Mental Illness and its Effects

Regardless of whether one causes the other, there is a general consensus that the effects of comorbid disorders can be minimized with proper intervention and treatment (CCSA, 2013; NIDA, 2020; Robinson et al., 2021). Generally, this means recognizing the signs and symptoms early on, as well as ensuring the proper treatment plan based on individual circumstances. This is something that the youth justice system in Canada has been lacking in; even in areas where interventions are available, many youth are not receiving services matched to their needs, thus contributing to offending and reoffending (Peterson-Badali et al., 2015b).

If mental illness cannot be prevented altogether, recognizing the signs early on and intervening is the next best step. The onset of mental illness and substance use disorders often occurs during adolescence, and people who develop problems earlier typically have a greater risk for severe problems or comorbid disorders as adults (CCSA, 2013; NIDA, 2020). Things to look out for with regard to possible mental illness or co-occurring disorders include: sudden and severe feelings of depression, anxiety, or other atypical emotions; use of alcohol or drugs to cope with unpleasant memories or feelings, to control pain or the intensity of your moods, to face situations that frighten you, or to stay focused on tasks; experiencing feelings of depression when drinking, or feeling the urge to drink when anxious or plagued by unpleasant memories, and more (Robinson et al., 2021). Furthermore, given the high prevalence of comorbid mental disorders and their adverse impacts, various mental illness treatment programs for adolescents should screen for comorbid mental disorders and provide treatment as appropriate.

Research indicates that some mental, emotional, and behavioural problems among youth can be prevented or significantly mitigated by evidence-based prevention interventions (CCSA,

2013; NIDA, 2020). These interventions can help reduce the impact of risk factors for substance use disorders and other mental illnesses (NIDA, 2020). Examples of intervention programs that have been successful in the past include: multisystemic therapy, brief strategic family therapy, multidimensional family therapy, cognitive behavioral therapy, dialectical behavior therapy, and many others (NIDA, 2020). Other basic lifestyle changes including regular exercise, relaxation techniques, healthy eating habits, and adequate sleep can help mitigate the symptoms of mental illness, and may be a good first step for those struggling (CCSA, 2013). Evidently, there are numerous changes one can make, and through a process of trial and error a successful program is likely to be found. Overall, implementation of programs and practices that decrease risk factors and increase resilience can help reduce both substance use disorders and other mental illnesses, therefore reducing violent offending in the long run.

Recommendations

Practical Implications

There are numerous options available with regard to preventing and dealing with mental illness. Initially, if a child growing up in adverse circumstances is unavoidable, recognizing the signs and symptoms of mental illness early on is critical. To do so, parents should look out for tell tale signs in their own children, as research shows these begin to appear at an early age (CCSA, 2013; NIDA, 2020). Additionally, other professionals who work closely with children may want to look out for any indication of a mental illness. For example, school teachers, day care workers, sports coaches and more. Mandated education about mental illness among these professions would also be beneficial, so that these individuals know what to look for and how to go about dealing with it. Furthermore, the destigmatization of mental health problems would

help children be more accepting of these symptoms within themselves. This may mean having open conversations about mental illness, what it means, that it is a common occurrence, and much more. From there, available opportunities for help for those who think they may be experiencing symptoms of a mental illness should be discussed and posted in an easily accessible way. Lastly, existing programs for children and youth with a substance abuse problem or any other category of mental illness should consistently screen for co-existing disorders, given the high prevalence of them, and treat them accordingly. Through all of this, comorbid disorders - and the likelihood that violent offending will occur as a result - can be reduced.

Further Research

Additionally, there are gaps in the literature that would benefit from further examination. Firstly, there is a lack of Canadian based research with the primary subject being the effects mental of illness on youth offending. The studies that do discuss a portion of this topic lack diversity in their sample population, talk about mental illness in adults rather than youth, or are a literature review based in part on studies that took place in the US. While the findings discussed in this paper likely translate over to the Canadian youth population, studies done on Canadian youth specifically would help determine a more realistic scope of the problem, and thus allow for a more targeted solution. More research on which specific programs help prevent and counter the effects of mental illness, including a dual-diagnosis and other sub-categories of mental illness, in Canadian youth would also be beneficial. With such a lengthy list of treatment options available, it may be overwhelming for an individual to select one. Likewise, youth have different cognitive and emotional abilities than adults. So, if research is conducted on a range of Canadian youth

with mental illness as they go through various treatment options, it may help make the decision easier for others.

Conclusion

Through this analysis of existing literature it can be confirmed that mental illness does in fact have a causal connection to youth offending. More specifically, a dual-diagnosis significantly increases the risk an individual will offend and re-offend. Genetic and environmental factors specific to individuals can be used to determine whether or not someone will develop a dual- diagnosis in their lifetime. Often, there are revelatory signs that present themselves early on in life. These signs can be used to direct individuals to appropriate means of treatment in order to prevent, or even reverse, the effects mental illness. In order for this to happen, providing education on the signs and symptoms of mental illness, as well as making treatment options more available in an informed way is key. In terms of future research, conducting studies on which specific programs have been successful in dealing with each sub-category of mental illness, specifically in Canadian youth, would be beneficial. This way, young individuals struggling with mental illness can be directed to a form of treatment that is known to work, and another important step towards reducing youth violence can be taken.

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Appendix A

Initial Database Keyword Search and Hits

This chart demonstrates the initial search process conducted in order to obtain articles for the research paper. The first column indicates the database searched, the second column indicates the keywords used, and the third column indicates the number of articles that came up as a result.

Appendix B

Secondary Database Keyword Search and Hits

This chart demonstrates the secondary search process conducted in order to obtain articles for the research paper. For this search, the first column indicates the database searched, the second column indicates the keywords used, and the third column indicates the number of articles that came up as a result after filtering the results based on the search criteria.