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EDITORIAL

The balance between clinical and administrative leadership in forensic psychiatry

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Marilyn Dakers-Hayward is the Clinical Director of the Forensic Psychiatry Program at St. Joseph's Healthcare Hamilton. This program has 5 units; one secure, one undesignated, two general and one assessment, for a total of 114 beds. The program also has a forensic outpatient clinic which includes forensic outpatient rehabilitation program, aggression clinic, and sexual behaviour clinic.

The International Journal of Risk and Recovery, launched in January 2018, has as a stated goal a focus on not only addressing key forensic psychiatry issues but also on publishing articles pertinent to forensic psychiatry clinicians. The success of this goal, rooted in excellent research and effective knowledge translation, is dependent upon an infrastructure that promotes exploration and implementation, allowing evidence based concepts to not only survive but to flourish in professional practice and the provision of care. This may sound logical and reasonable; after all, who doesn't want the best and latest information to guide translation of research into professional practice? However, the reality of the healthcare environment is challenged by the convergence of increasing service demands, need for cost reductions, interprofessional tensions, pressures of technological changes, and demand for quality improvement, all of which can and do impact the broad hospital sector as well as specialized programs, such as psychiatry. With so much information to be digested and so many workplace technical requirements, there really isn't enough time to access this information. Healthcare is a business and by extension, forensic psychiatry programs need to operate as businesses in order to survive. It is therefore incumbent upon the *International Journal of Risk and Recovery* to explore not only the identification and mitigation of risk, and the components of recovery, but also the business underpinnings that make this work possible. Without a viable business, services collapse.

Key to the success of any business is the operational structure. For many years, hospitals and specialty programs within healthcare facilities functioned within 'psychic prisons'[i] where leaders identified strongly with an assigned mandate which was concretized in a way that stifled organizational learning, innovation, and the ability to adapt. Hospital and program administrators focused on the operational aspects of the business while physician leaders focused on the clinical and technical expertise that contributes to the provision of care. Operating in two solitudes, physicians and administrators defended their own perceptions of "clinical care versus business", resulting in continuation of the status quo. In recent years however, the focus, strategy, and structure of healthcare has evolved and there has been a clear departure from what was the traditional attitude of separating the business aspects from the clinical aspects of healthcare. Now physicians (and not just physician leaders), like other administrative leaders, must consider cost effectiveness, budgets, patient satisfaction, policy, and business strategy. Further, and perhaps less comfortably, administrative leaders must consider clinical and technical operations.

From a political perspective, organizations are ruled by whoever controls the fiscal, human and physical resources. They decide how resources are used to meet the established goals and interests. Given the evolution of healthcare facilities towards a more business focused model, one that

favours a shared model of physician and administrative leadership, it is essential that a balance be struck in all aspects, resulting in effective design, innovation, and responsiveness to challenges and change. When not balanced, the playing field can become a battleground for control, and the program can revert back to the “psychic prison”, and trapped by their own perceptions, there is no room for alternate viewpoints, and no capacity for growth and development.

Finding and maintaining the balance between clinical and administrative leadership is important in the operation of any healthcare program, but it is arguably essential with a forensic mental health setting. Rooted in concepts of detention with a mandate to protect public safety, forensic mental health is at significant risk of being another “psychic prison”, where the focus is on risk and containment, and concepts of hope and recovery are merely remote secondary considerations. History has recorded many examples of custodial care that focused on containment and lack of hope, and sadly, whispers of that history can and do quickly remerge in the face of tragic events that garner public attention. This is the challenge and the opportunity for shared leadership with forensic mental health settings.

The transition to a shared leadership model can be very difficult. As the model of shared leadership expands, both must break out of the individual expert mold and complement their clinical and administrative skills with a range of broader collaborative and relationship based skills. No longer can leaders only concern themselves with the divide between clinical and business, they must now each merge these two solitudes if they are to make a significant and sustained impact on programs they lead and the system they work within. It is difficult on a personal level to give up the perceived level of sole control, and even more difficult, yet essential, to form an alliance with someone with whom this control must now be shared. Leadership partnership are sometimes formed deliberately with forethought about shared vision, commonality, fit, or creative tension and sometimes formed without consideration of the dynamic that will define the partnership, but regardless of the beginning, they are forged in experience.

So what makes for a successful shared leadership partnership in a forensic setting? It is tempting to answer this question by listing a range of qualities deemed to make for good leaders, but while important to have these attributes, they do not necessary lead to a good shared leadership partnership. Experience suggests that good shared leadership partnerships require that each player must bring a range of skills in their area of expertise; however, that is not enough for the partnership to succeed. There are multiple examples of two highly skilled professions in their own right not being able to form the partnership required to successfully lead a program. So what is required ? The two leaders who make up the shared leadership partnership do not have to agree; indeed, the discussion of areas of disagreement may fuel innovation and creativity as mutually acceptable solutions are identified and pursued. The two leaders who make up the shared leadership partnership do not have to have the same style; indeed, a difference in style may enhance their capacity for engagement of a broader range of stakeholders, with complementary styles of leadership. The two leaders who make up the shared leadership partnership do need to share the same high level vision for the program; however, differences of opinion on how to get there are not only healthy but necessary in preventing tunnel vision resulting in missing other opportunities. So what is the critical ingredient that makes it work? Experience suggests clinical and administrative leaders who share a compassion for and understanding of the population they serve, who respect and trust the capabilities and skills of each other, and who can challenge yet support each other may have a better chance of establishing and developing a strong, effective shared leadership partnership. This, however, requires further exploration to enhance our understanding of how leadership impacts and intersects with the academic aspects of forensic psychiatry.

The balance of risk and recovery is the business of forensic psychiatry. As this journal explores the business of forensic psychiatry, it is hoped that further exploration of the infrastructure that supports it will be undertaken.

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Note

[i] Organizational Metaphor developed by Dr. Gareth Morgan wherein organizations are ultimately created and sustained by conscious and unconscious processes, with the notion that people actually become imprisoned in or confined by images, ideas, thoughts, and actions

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REVIEW ARTICLE

Is there a link between psychopathy and self-harm? a review of the literature

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The aim of this review was to examine whether there is a link between psychopathy and self-harm. A systematic search identified 14 papers which examine this link. A quality appraisal checklist was used to evaluate the quality of each study. The application of the quality appraisal checklist showed that the majority of the studies had good internal validity; however, there were some biases that affected the external validity of some studies. The results indicated that there may be a positive association between total psychopathy score and self-harm; however, some studies with smaller sample sizes and low rates of self-harm failed to show this association. The results of most of the studies showed a positive association between Factor 2 of the Psychopathy Checklist (PCL-R; Hare, 2003) and self-harm. No link was found between Factor 1 and self-harm. The results did not show consistent evidence for a link between any of the four facets and self-harm. Although this review indicates a link between Factor 2 and self-harm, and a possible link between total psychopathy score and self-harm, the small number of studies in this area means that the research is not robust enough to provide strong evidence for these associations.

Key words

Psychopathy, Psychopaths, Self-harm, Self-injury, Literature review, Systematic review

Introduction

A large amount of research has been conducted into the link between psychopathy and criminality (e.g. Dolan and Doyle, 2000; Harris et al., 1991; Hemphill et al., 1998) [1–3]. However, the link between psychopathy and internalizing problems, such as self-harm and suicide, has received less attention [4]. Early conceptualizations of psychopathy suggested that those who meet the criteria for psychopathy are less likely than those who do not to experience suicidality or self-harm [5]. However, some research is inconsistent with this idea, and has found a positive correlation between antisocial and lifestyle-related psychopathic traits and lifetime suicide attempts [6,7] and suicide-related behaviour [8]. Although these studies have demonstrated a link between psychopathy and suicidal behaviour, the studies have either not studied the link between psychopathy and non-suicidal self-harm (e.g. Verona et al., 2001; Verona et al., 2005) [6,7] or not separated suicidal and non-suicidal self-harm within their methodology (e.g. Douglas et al., 2006) [8]. Therefore, this review aims to examine the existing research literature to investigate whether Cleckley was correct in his assertion that psychopathy is associated with a lower risk of self-harm, and whether specific factors or facets of psychopathy are more associated with risk of self-harm than others [5].

Method

Literature Search

A search was conducted on May 26, 2016 by a Trainee Forensic and Clinical Psychologist, currently undertaking a doctoral degree. The following databases were searched: Embase, Ovid Medline, PsycInfo and PsycArticles. The following search terms were used:

A. Keyword search for ‘self-harm*’ or ‘self-injur*’ or ‘self-mutilat*’ or ‘parasuicid*’ or ‘DSH’
B. Keyword search for ‘psychopathy’ or ‘psychopath’ or ‘psychopaths’ or ‘psychopathic’ or ‘sociopath*’
C. Combine searches: A and B

Only peer-reviewed journal articles were

included. Grey literature, such as book chapters or conference abstracts, was excluded to ensure that there was enough information available to accurately assess the methodology of the studies. Articles that used the term 'psychopath' to mean something different were excluded (e.g., use of the term 'psychopathic disorder' in the Mental Health Act to mean severe personality disorder). Articles that examined the link between suicide and psychopathy, and did not separate self-harm and suicide were also excluded, as were articles that mentioned self-harm or psychopathy, but that did not directly study them, or articles that studied self-harm and psychopathy, but in relation to a third variable, without directly examining association between psychopathy and self-harm. This resulted in 14 papers being included in this review (see Figure 1 for flow diagram of this process).

Quality Appraisal

In order to assess the quality and scientific rigour of the identified studies, a quality appraisal framework was identified for use in this review. The National Institute for Clinical Excellence [9] developed a quality appraisal checklist suitable for quantitative studies that report correlations and associations. The checklist is based on the appraisal stage of the Graphical Appraisal Tool for Epidemiological studies (GATE) [10], and examines the internal and external validity of studies. The checklist has been adapted for use in the current review. For clarity, questions relating to 'exposure' and 'outcome' have been changed to 'psychopathy' and 'self-harm', respectively. One question related to contamination of exposure was removed, as it was deemed irrelevant to these studies. An additional question was added to the appraisal criteria which asked about number of individuals who met the criteria for psychopathy within the sample (Question 2.2; see Table 1 for a list of quality appraisal criteria). This checklist was applied to each study by the researcher, and the results of this literature review will be discussed in relation to the quality and findings of each study.

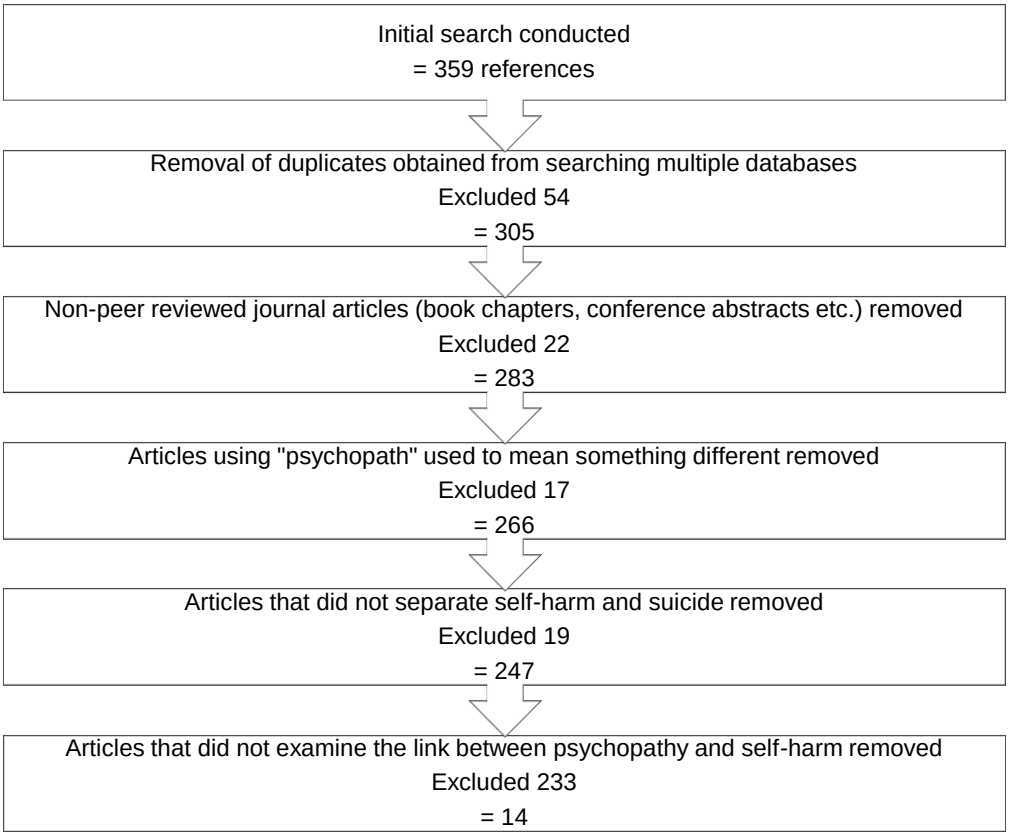

Figure 1. Search and exclusion process.

Table1- *Quality appraisal criteria*

Section 1: Population	
1.1	Is the source population well described?
1.2	Is the eligible population or representative of the source population?
1.3	Do the selected participants represent the eligible population?
Section 2: Psychopathy measures	
2.1	Selection of psychopathy group. How was selection bias minimised?
2.2	How many/what proportion of the sample were psychopaths?
2.3	Was the measure of psychopathy based on a sound theoretical basis?
2.4	How well were likely confounding factors identified and controlled?
2.5	Is the setting applicable to the UK?
Section 3: Self-harm measures	
3.1	Were the self-harm measures and procedures reliable?
3.2	Were the self-harm measurements complete?
3.3	Were all the important outcomes assessed?
Section 4: Analyses	
4.1	Was the study sufficiently powered to detect an intervention effect (if one exists)?
4.2	Were multiple explanatory variables considered in the analyses?
4.3	Were the analytical methods appropriate?
4.4	Was the precision of association given or calculable? Is association meaningful?
Section 5: Summary	
5.1	Are the study results internally valid (i.e. unbiased)?
5.2	Are the findings generalizable to the source population (i.e. externally valid)?

Result

The description and relevant results of each study are summarized in Table 2, in date order. Each study is summarized based upon its quality, results, and the evidence that it provides in relation to the research question. One article contains two studies with different methodologies [11]. Therefore, the quality of these studies were assessed, and the results presented, separately. Additionally, as some of the studies examined wider research questions than the link between psycho-pathy and self-harm, only the results directly related to the link between psychopathy and self-harm are presented and discussed within this review.

Quality of the Studies

Overall, 8 of the 15 studies had good internal validity. Problems with internal validity were related to biases in the collection of self-harm data, PCL measures being used on samples that they had not been validated on, non-reporting of the prevalence of psychopathy, and studies being insuf-ficiently powered to detect associations. Overall, only 6 of the 15 studies demonstrated good external validity. Problems with external validity were related to failure to fully explain how participants were recruited, selecting participants from limited sites, and stringent exclusion criteria that mean that the results were not generalizable.

Summary of Results of Studies

The studies varied in terms of what 'level' of psychopathy they measured. Ten studies measured the link between overall psychopathy score and self-harm. Eleven studies separated psychopathy into Factor 1 and Factor 2 [24]. Four studies separated psychopathy into its four facets: interpersonal, affective, antisocial and lifestyle [24]. Each of these sets of results will now be reported.

a. Examining the association between total psychopathy score and self-harm

Ten studies examined the link between total psychopathy score and self-harm [12–15,18–23]. Four of these studies did not find a significant association between psychopathy and self-harm [12,14,21,22]. However, all four of these studies had small sample sizes or low rates of self-harm. It is not clear, therefore, whether the lack of a significant result was due to the studies being underpowered or whether a relevant association did not exist.

Five of the ten studies found a positive association between psychopathy and self-harm [13,15,19,20,23]. However, it appears that one of these papers may

have misreported the results [15]. Out of the other four studies, three showed good internal and external validity [13,19,23], however one study's external validity may have been affected by using volunteers, and its internal validity is unclear, as the authors did not clearly explain the self-harm measure that was used [20].

Finally, one study showed a negative association between psychopathy and self-harm [18]; however, this association was small (r=-0.15). In addition to this, the study's internal validity may have been affected by relying on self-report measures of psychopathy and self-harm, and its external validity may have been affected by the recruitment method, which was not clearly explained, and by the fact that only individuals with one of four personality disorders, or major depression were included in the study.

To conclude, of the ten studies that examined the link between total psychopathy score and self-harm, five found a positive association [13,15,19,20,23]. Although one of these may have misreported the results, the other four are of an acceptable quality. Four studies did not find an association between psychopathy and self-harm [12,14,21,22]. One study showed a small negative association between psychopathy and self-harm [18]; however, this study had potential problems with its internal and external validity. Therefore, overall, there is evidence that indicates that there may be a positive association between psychopathy and self-harm; however further research is required to determine whether the lack of significant results in some of the studies was due to small sample sizes and low rates of self-harm.

b. Examining the Association between Factor 1, Factor 2 and Self-Harm

Eleven studies examined the link between Factor 1 and Factor 2 and self-harm [11–15,17,18,20,21,23] – regarding the article of Verona et al. (2012) both Study 1 and Study 2 are taken into consideration. Two studies found a negative association between Factor 1 and self-harm [15,18], whereas the remaining nine studies found no association. Of the two studies that found a negative association, one study's internal validity may have been affected by the use of self-reported psychopathy and self-harm, and its external validity may have been affected by the recruitment method, which was not clearly explained, and by the fact that only individuals with one of four personality disorders, or major depression were included in the study [18]. The other study appears to have misreported at least some of the data, and therefore the accuracy of this result is unclear [15]. Therefore, there is not enough evidence to support the notion that there is a link between Factor 1 and self-harm.

In regard to Factor 2, four of the eleven studies did not show a significant association between Factor 2 and self-harm [12,14,20,21]. Of these four studies, two had good external validity [12,14]; however, the external validity of the other two studies may have been affected by using participants who had volunteered to take part [20], and by only using participants from one forensic hospital [21]. Additionally, all of the four studies had biases that may have impacted on their internal validity, including: using the PCL:JV, which is less reliable than the PCL:YV [14], and either not reporting what was included as self-harm, or only including some forms of self-harm [12,20,21].

Six studies found a positive association between Factor 2 and self-harm [11,13,17,18,23] – regarding the article of Verona et al. (2012) both Study 1 and Study 2 are taken into consideration. Five of these studies had good internal validity; however, one study's internal validity may have been affected by using self-report measures of psychopathy and self-harm, which may be inaccurate [18]. Additionally, three of the six studies may have had biases that impacted on their external validity, by using unrepresentative sam-ples [11,17,18] – regarding the article of Verona et al. (2012) consider here only Study 1. Finally, one study found a negative association between Factor 2 and self-harm (15); however, as this study appears to have misreported at least some of the data, the accuracy of this result is unclear.

To conclude, there is not enough evidence to support the notion that there is a link

between Factor 1 and self-harm. However, there is some evidence that there is a positive association between Factor 2 and self-harm.

c. Examining the Associations between the Four Facets and Self-Harm

Four studies examined the link between each of the four facets (Interpersonal, Affective, Antisocial and Lifestyle) and self-harm [4,14,16,23]. In relation to the link between the Interpersonal facet and self-harm, two studies found no association [16,23], one study found a negative association [4], and one study found a positive association [14], but only in one of their two sample groups. All of these studies, apart from one, had some biases in their internal or external validity. Therefore, there is not enough consistent evidence to indicate a link between the Interpersonal facet and self-harm.

In terms of the relationship between the Affective facet and self-harm, one study showed a positive association; however the other three studies failed to find an association. The study that found a positive association had good internal validity; however only patients with certain diagnoses, and only those hospitalized for less than 21 days were included in the study, which may have impacted on the external validity of the study [4]. One of the three studies that showed no association between the Affective facet and self-harm had the same problem with external validity, but good internal validity [16]. One study had good external validity, but used a translated version of the PCL:YV which has not been validated on that sample, which they then modified, affecting the internal validity of that study [14]. The other study had good internal and external validity [23]. Therefore, overall there is not enough good quality evidence to indicate a link between the Affective facet and self-harm.

In relation to the Antisocial and Lifestyle facets, one study showed a weak positive association between both of these facets and self-harm [23], whereas the other three studies showed no association. Although this study had good internal and external validity, the fact that the associations were weak, and the lack of replication of these results across other studies means that there is not enough evidence to support the notion that there is a link between the Antisocial facet or Lifestyle facet and self-harm.

To conclude, only four studies examined the link between each of the four facets and self-harm. These studies showed inconsistent, and sometimes conflicting results. Therefore, there is not enough evidence to indicate a specific link between any of the four facets and self-harm.

Discussion

Cleckley believed that those who met the criteria for psychopathy were less likely than those who did not to experience suicidality or self-harm [5]. The results of this literature review did not support this idea, and in fact the evidence indicated that the opposite may be true: those who score higher on measures of psychopathy are more likely to self-harm. More specifically, the results indicated that those who score higher on Factor 2 items may be at an increased risk of self-harm. There is not enough evidence indicative of a link between Factor 1, or any of the four facets, and self-harm.

Recommendations for Clinical Practice

Clinicians working with individuals who meet the criteria for psychopathy should be aware that their psychopathic traits may increase, rather than decrease their risk of self-harm, particularly in those individuals who score high on Factor 2 items. This should therefore be considered when undertaking self-harm risk assessments. Additionally when considering interventions aimed at reducing an individual's risk of self-harm, interventions that target Factor 2 traits may be of benefit. However, as this has not yet been empirically tested, further research into whether reduction of Factor 2 traits does reduce self-harm risk is required.

Table 1 - *Summary of final studies*

Authors/ Year	Aims	Participants	Psychopathy measure	Self-harm measure	Analysis	Results
Gray et al., 2003 [12]	To examine the efficacy of the PCL-R, HCR-20 and Beck Hopelessness Scale in predicting institutional self-harm and suicide.	N = 34 (77% male, 23% female) Patients admitted to one of two medium-secure units in the UK 6% scored above the cut-off (≥25) for psychopathy	PCL-R	Aggression Vulnerability Scale (created for this study)	Spearman's Rho, Signal Detection Theory, AUC and Mann-Whitney U	No significant association between SH and Factor 1, Factor 2, or Total PCL-R score
Young et al., 2006 [13]	To identify measures that were associated with self-harm in prison psychiatric treatment.	N = 242 (100% male) Prisoners receiving treatment in a psychiatric unit within a US prison	PCL-R	Prison psychiatric records	T-tests, Chi Square tests, Mann-Whitney tests and Logistic Regression	Presence of psychopathy (Total PCL-R score ≥30; X^2=3.59, p=0.05) and Factor 2 (t=2.15, p<0.05) identified those with a history of SH. However, model that best predicted SH did not contain psychopathy at all. Factor 1 results were not reported.
Das, et al., 2007 [14]	To examine the predictive validity of psychopathic traits, as measured by the PCL:SV, for institutional disruptive behaviour in adolescent offenders.	N = 147 (100% male) Adolescents in one secure and one semi-secure treatment facility in The Netherlands 14% scored above the cut-off (≥30) for psychopathy	PCL:JV (Dutch version of the PCL:YV)	Records (daily reports)	Spearman's Correlations	Positive correlation between Interpersonal facet and SH in one sample (ρ=0.28, p<0.05) but not the other. No significant association between SH and Total PCL-R score, Factor 1, Factor 2, or any of the other three facets in either sample.
Semiz et al., 2008 [15]	To examine the relationship between ADHD measures within a population with substance use disorders, self-injurious behaviour, suicide attempts and criminal behaviours.	N = 105 (100% male) Men referred for further psychiatric assessment after being assessed for the Turkish Military, who met the criteria for antisocial personality disorder 35% scored above the cut-off (≥30) for psychopathy	PCL-R	Semi-structured interview	Pearson's Correlation Coefficient	Negative correlation between Factor 1 and SH (r=-0.27, p<0.05) Negative correlation between Factor 2 and SH (r=-0.39, p<0.001) Positive correlation between PCL-R Total score and SH (r=0.27, p<0.05) However, data in the table does not match data in the text

Authors/ Year	Aims	Participants	Psychopathy measure	Self-harm measure	Analysis	Results
Swogger, et al., 2009 [16]	To examine the relationship between psychopathy and suicide attempts/ non-suicidal self-injury in a civil psychiatric population.	N = 810 (59% male, 41% female) From one of three acute inpatient hospitals as part of MVRAS Hospitalized for <21 days Diagnoses: schizophrenia, schizophreniform disorder, schizoaffective disorder, major depression, dysthymia, mania, brief reactive psychosis, delusional disorder, alcohol/other drug abuse or dependence, or a PD	PCL:SV	Semi-structured interview about SH in the past two months	Mann-Whitney-Wilcoxon, F-tests and Multinomial Logistic Regression.	No significant association between SH and any of the four facets.
Miller et al., 2010 [17]	To examine the relationships between the three areas of the Vulnerable Dark Triad (vulnerable narcissism, Factor 2 psychopathy, and borderline personality disorder) and personality, environmental etiological factors, and current functioning.	N = 361 (38% male, 62% female) Undergraduate students in the USA	LSRP SRP-III	Deliberate Self-Harm Questionnaire- Short Form (DSHQ-SF)	Regression	No significant correlation between SH and Factor 1. Positive correlation between SH and Factor 2 (r=0.26, p<0.001)
Witt et al., 2010 [18]	To examine how the NEO-PI-R measures of Fearless Dominance and Impulsive Antisociality are associated with other measures of personality pathology and psychopathology.	N = 733 (36% male, 64% female) Participants recruited for the Collaborative Longitudinal Personality Disorders Study (CLPS) US sample Met criteria for schizoid, borderline, avoidant or obsessive-compulsive PD (86%), or major depressive disorder without PD (14%)	NEO-PI-R	Schedule for Non-adaptive and Adaptive Personality (SNAP)	Concurrent Correlations	Negative correlation between Fearless Dominance and SH (r=-.47, p<0.05) Positive correlation between Impulsive Antisociality and SH (r=0.43, p<0.05) Weak negative correlation between FFM Psychopathy and SH (r=-0.15, p<0.05)

Authors/ Year	Aims	Participants	Psychopathy measure	Self-harm measure	Analysis	Results
Ates et al., 2011 [19]	To examine whether self-mutilation is associated with severity of psychopathy in men with antisocial PD not in prison.	N = 116 (100% male) Men referred for further psychiatric assessment after being assessed for the Turkish Military, who met the criteria for antisocial personality disorder 48% scored above the cut-off (≥30) for psychopathy	PCL-R	Interview, records, relatives, physical examination	Fisher's Exact tests and Chi-square tests for categorical data. Independent sample t-tests for continuous data. Spearman's Correlations to examine the association between SH and severity of psychopathy.	Compared to non-psychopaths, psychopaths had more frequent (p<0.05) and more severe (p<0.05) SH Positive correlations between Total PCL-R score and frequency (r=0.278, p<0.005), number (r=0.245, p=0.01) and severity (r=0.199, p<0.05) of SH.
Gunter, et al., 2011 [20]	To examine risk factors for suicidal ideation, suicide attempts and self-harm without lethal intent in a community corrections sample.	N = 337 (65% male, 35% female) Volunteers who responded to study announcements placed in a community corrections office in the USA All were on probation, parole or work release 13% scored above the cut-off (≥30) for psychopathy	PCL:SV	Semi-Structured interview for the Assessment of the Genetics of Alcoholism- Revised (SSAGA-II)	Binary Logistic Regression	The model that best predicted SH contained Total PCL:SV score (OR=3.92, p=0.001). No significant association found with Factor 1 or Factor 2.
Verona et al., 2012 [11] [Study 1]	To examine the moderating role of gender in the relationship between psychopathy factors and risk of self-directed violence.	N = 318 (49% male, 51% female) Undergraduate students from one university in the USA	PPI-S SRP-II	One question about lifetime history of SH added into the Suicidal Behaviours Questionnaire-Revised (SBQ-R)	Hierarchical Regression	Negative correlation between Factor 1 and SH approaching significance (r=-0.10, p<0.1) Positive correlation between Factor 2 and SH (r=0.19, p<0.01). However, in women this was only true for those scoring high, but not low, on Factor 1
Verona et al., 2012 [11] [Study 2]	To examine the moderating role of gender in the relationship between psychopathy factors and risk of self-directed violence. To examine whether BPD symptoms account for this relationship.	N = 459 (65% male, 35% female) Offenders in prison and the community	PCL:SV	Lifetime History of Aggression Questionnaire (LHA)	Moderating effect of BPD was examined using a composite score of suicide & SH, so will not be discussed. Zero-order correlations are presented.	No significant correlation between Factor 1 and SH Positive correlation between Factor 2 and SH (r=0.15, p<0.01)

Authors/ Year	Aims	Participants	Psychopathy measure	Self-harm measure	Analysis	Results
Negredo, et al., 2013 [21]	To examine the relationships between different definitions of antisocial personality, suicide attempts and self-mutilation in men with mental disorders detained in a forensic psychiatric hospital.	N = 29 (100% male) Patients detained in a forensic psychiatric hospital in Spain	PCL:SV	Semi-structured interview asking about specific forms of self-harm (not validated)	Pearson's Correlation Coefficients	No significant correlations between SH and Factor 1, Factor 2 or Total PCL-R score
Dhingra et al., 2015 [4]	To examine the relationships between the four psychopathy factors and items indexing self-injurious thought and behaviour in a large sample of civil psychiatric patients, when controlling for mixed anxiety-depression, violence victimisation and gender.	N= 871 (58% male, 42% female) From one of three acute inpatient hospitals as part of MVRAS Hospitalized for <21 days Diagnoses: schizophrenia, schizophreniform disorder, schizoaffective disorder, major depression, dysthymia, mania, brief reactive psychosis, delusional disorder, alcohol/other drug abuse or dependence, or a PD	PCL:SV	Six questions relating to self-injurious thoughts and behaviour (not validated)	Latent Class Analysis identified two SH groups: Low-risk and High-risk. Logistic Regression used to assess association between class membership and psychopathy	Low scorers on the Interpersonal facet were more likely to be in the High-risk SH group (*OR* = 0.84, *p*<0.05) High scorers on the Affective facet were more likely to be in the High-risk SH group (*OR* = 1.27, *p*<0.001) No significant link found with Lifestyle or Antisocial facets
Forouzan & Nicholls, 2015 [22]	To investigate factors of women presenting with psychopathy to evaluate whether these factors play a role in the emergence of psychopathy in females	N = 82 (100% female) French-speaking women who were removed from their family home and placed in Youth Centres during their childhood in Quebec, Canada. 41.5% scored above the cut-off for psychopathy when using cut-off of 25	PCL-R	File review	Phi coefficient	No significant difference between psychopaths and non-psychopaths in regards to history of SH.
Storey, et al., 2016 [23]	To evaluate the psychometric properties of PCL-R ratings for a sample of male offenders.	N = 375 (100% male) All men who were assessed for prison classification over a one year period in the Pacific Region of Canada. 17% scored above the cut-off (≥30) for psychopathy	PCL-R	File review	Chi-squared for categorical data Point-biserial correlations	Weak positive correlations between SH and Total score (*r*=0.14, *p*<0.05), Factor 2 (r=0.20, p<0.001), Lifestyle facet (r=0.16, p<0.05) and Antisocial facet (r=0.21, p<0.001). No significant correlations between SH and Factor 1, Affective facet or Interpersonal facet.

Recommendations for Further Investigation

Some of the studies that examined the link between total psychopathy score and self-harm failed to show any association. However, this may have been due to small sample sizes or low rates of self-harm. Therefore, further research is needed to examine the link between total psychopathy score and self-harm with larger sample sizes, to establish whether the lack of significant results was due to the studies being underpowered, or due to a 'true' lack of association between psychopathy and self-harm. Only four studies examined the link between self-harm and each of the four facets of psychopathy. The results of these studies were inconsistent, and therefore further research is required to see whether any of the results obtained in previous studies are reliable across different samples and methodologies.

The current review also found that few of the studies that examined the link between psychopathy and self-harm contained, or reported, high numbers of individuals meeting the criteria for psychopathy within their samples. Therefore, it is recommended that further research uses samples that contain higher numbers of individuals that meet the criteria for psychopathy, and that this research directly compares those who meet the criteria and those who do not to see whether the results presented within this review are the same with more psychopathic samples.

Finally, the majority of the studies within this review used self-report measures of self-harm, which may not be reliable due to over- or under-reporting, or recall bias. Therefore, further research could be conducted using more objective measures of self-harm, such as observations or clinical records, and collateral information, for example from family members.

To conclude, further research in this area should include: large sample sizes with greater numbers of individuals who meet the criteria for psychopathy, multiple centres/settings, a well-describe population so that confounding factors such as borderline personality disorder can be considered, a validated measure of psychopathy such as the PCL-R or PCL:SV, and a valid measure of self-harm that incorporates self-report as well as collateral information.

Limitations of Review

The main limitation of this review is the small number of studies that were found which examine this research question. Overall, only 15 studies were obtained and used in this review. Of these, some studies examined total psychopathy score, some examined Factor 1 and Factor 2, and some examined the four psychopathy facets. Small numbers of studies at each 'level' of psychopathy meant that finding reliable results was difficult. Additionally, only 4 of the 15 studies had good internal and external validity. In reviews with larger number of studies, those deemed of lower quality could be relied upon less; however due to the small numbers of studies in this review, results from those of poorer quality had to be relied upon.

Conclusion

This systematic literature search yielded 14 papers that examine the link between psychopathy and self-harm. The use of a quality appraisal checklist developed by NICE allowed for an appraisal of the quality of each study (9). This showed that most of the studies had good internal validity; however there were some biases that affected the external validity of some of these studies. The results showed that there may be a positive association between total psychopathy score and self-harm; however some studies failed to show this association and therefore further research is required with larger sample sizes to determine whether this was due to the small sample sizes and low rates of self-harm. The results showed a positive association between Factor 2 and self-harm, but failed to show a link between Factor 1 and self-harm. The results did not show consistent evidence for a link between any of the four facets and self-harm. Further research is required in this area to establish whether the results presented in this review are reliable.

Conflict of Interest: none

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REVIEW ARTICLE

A review of patient-level factors related to the assessment of fitness to stand trial in Canada

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Under Canadian law, when the issue of fitness to stand trial is raised, a medical professional completes an assessment and provides an opinion of fitness. The Criminal Code does not mandate a specific form of fitness assessment, and in the last fifty years, a number of unstructured and structured measures have been created for clinicians' use. In the last three decades, a multitude of studies have been conducted in the assessment of fitness to stand trial in an attempt to provide a clearer picture of which patient-level factors influence a clinician's finding of fitness. Previous conclusions on the influence of demographic, psychiatric, criminal, and psycholegal factors have ranged heavily, and research on fitness determinations in Canada is minimal. The purpose of this review is to consolidate the numerous studies to provide an understanding of where future research should be focused so that reliable and valid fitness determinations can be made. Future research should focus on mirroring the unstructured assessments used by clinicians in their studies and then measuring the influence of patient-level factors. Most notably, research should focus on psycholegal factors and their influence on the determination of fitness under the applicable legal standards for fitness across the world.

Key words

Fitness to Stand Trial, Assessment, Competency to Stand Trial, Criminal Code of Canada, Patient-Level Factors

Introduction

The development of fitness to stand trial as a legal standard in Canada began with the seminal case of *R. v. Pritchard* (1836), which affirmed that an individual must be both physically and mentally present if adjudication is to take place against that person [1]. The 1892 version of the Criminal Code of Canada provided that no person who was unfit to stand trial (UST) as a result of a disease of the mind could be convicted, and instead, these individuals were subjected to hospitalization and institutionalization for indeterminate periods of time [2]. This Criminal Code and its provisions with respect to mental disorder remained unchanged until the Supreme Court of Canada allowed the appeal of *R. v. Swain* (1991). The majority of the Court held that the automatic detention of a person found Not Guilty by Reason of Insanity (NGRI) was unconstitutional on the grounds that the detention violated the accused's section 7 and section 9 rights under the Canadian Charter of Rights and Freedoms, which hold the right to life, liberty, and security (s. 7) and the right to not be arbitrarily detained (s. 9) [3]. The precedent this decision set for criminal responsibility led to the publishing of Bill C-30 in 1992, which steered the development of Part XX.1 of the Criminal Code. This Part now deals specifically with mental disorder provisions and explicitly identifies the three criteria that are relevant to fitness to stand trial. Those three criteria are ability to understand the nature and object of the proceedings, ability to understand the consequences of the proceedings, and ability to communicate with counsel [4]. The following review will be conducted in two parts. The first section will provide an overview of the various forms of fitness assessments created and a brief explanation of what each form of assessment is focused on, following which the second section will delineate the numerous studies that have evaluated which patient-level factors are predictive of a

finding of fitness.

Assessment of Fitness to Stand Trial

Under section 672.11, once the issue of fitness is raised, an Assessment Order to evaluate fitness is completed [4]. This assessment can be conducted in hospital, in a detention centre, or in court and the assessment can be completed over a video-link network or in person. As per the Criminal Code, the assessment is undertaken by a medical professional, usually a psychiatrist. Upon completion of the Assessment Order, the assessing clinician will provide an opinion and prepare a report that is presented in court, whereby the Judge will then issue a decision regarding the accused's fitness. If the accused is fit to stand trial (FST), the court proceedings resume, but if the accused is UST, then the accused enters the forensic mental health system. Since the early 1960s, a variety of instruments and interviews have been developed specifically for fitness assessment, which include questionnaires, checklists, semi-structured interview-based instruments, standardized tests, and unstructured clinician judgment.

Unstructured clinical assessments of fitness can be described as unstructured interviews that are open-ended and allow for rapport to be established between the individual and the clinician. Generally, the format of the interview begins with an introduction on the part of the clinician and the rest of the assessment team, an explanation of the purpose of the assessment, a caution concerning the limits of confidentiality, and the accused's right to refuse. Next, a set of open-ended questions are asked that focus on orientation to time and place, the individual's mental status including their mood, cognition, and psychosis, and the individual's understanding of the court. The Mental Status Examination is useful in that the presence of symptoms, while not sufficient for a finding of unfitness, can inform predictions about how psychiatric symptoms may affect the accused's state of mental fitness. This examination also attempts to clarify if there is a mental illness present, and the clinician may inquire about previous admissions or medication usage, so as to guide conclusions and recommendations about potential fitness restoration. Unstructured assessment also allows the assessor to evaluate the accused's capacity for rapport, communication, and comprehension, which can then be extrapolated to the fitness criteria. Finally, the examiner assesses the individual's understanding regarding court proceedings, with questions that probe about the roles of key professionals in court (e.g. Judge, Crown Attorney, and Defence lawyer), the individual's knowledge of the charges and description of events, definition of pleas available, and understanding of possible outcomes and legal terms such as oath and perjury. Table 1 describes these seven psycholegal abilities evaluated by clinicians to assess fitness. Another benefit of the unstructured interview is that the clinician can go beyond simply what the individual knows at the present time but can assess the individual's ability to learn. By repeating questions or providing some education, the clinician can further assess the influence of any current mental illness on the individual's ability to work with counsel, to remain focused and maintain information related to proceedings, and to understand and appreciate their own legal situation.

In practice, Borum and Grisso found that only 36% of psychologists and 11% of psychiatrists use standardized fitness assessments in their evaluations, indicating that the majority of fitness assessments are conducted in an unstructured manner [5]. However, almost all of the previous research has compared group-level differences between those found FST and those found UST based on some form of structured fitness assessment to evaluate fitness. This state of the research has resulted in a gap between empirical study and clinical practice, exacerbated by the fact that many findings tend to be contradictory and sample-dependent. Problems with study design also impact this area of study with methodological issues such as sample bias, referral bias, or insufficient statistical power. An additional concern is that a number of these earlier studies may or may not reflect the law of a particular country, or the most recent revisions or

cases applied in legal practice. In general, the factors evaluated across all these studies consisted of demographic variables, psychiatric variables, criminal variables, and psycholegal variables. However, very few studies have looked at the effect of individual factors on the specific criteria for fitness to stand trial. To date, there is still a lack of consensus on exactly which variables are related to, and inform, findings of fitness, but furthermore, which variables are related to the specific criteria that opine fitness [6].

Table 1: *Psycholegal Abilities Related to Fitness to Stand Trial*

Ability	Description
Knowledge of Charges	Tests the accused's knowledge of index offence. The charge will be explained by the psychiatrist if the accused doesn't know, at which point the psychiatrist will ask the question again later in the assessment to test knowledge.
Description of Events	Ascertains the ability of the accused to describe events surrounding index offence. This may include questions about interactions with the police, the environment at the location of the offence, and the accused's description of the events leading up to the offence.
Identification of Roles	Relates to the accused's ability to identify key professionals in a courtroom. This includes the Judge, the Defense lawyer, and the Crown Attorney (or prosecution).
Description of Roles	Tests the accused's understanding of the expectations and roles of each person in the courtroom.
Definition of Pleas	Measures the accused's ability to define and distinguish between available pleas.
Understanding Outcomes	Relates to the accused's knowledge of consequences of pleas explained previously.
Definition of Legal Terms	Assesses the accused's ability to define legal terms such as oath and perjury.

Factors Influencing Fitness to Stand Trial

In the last three decades, a number of studies have evaluated which patient-level factors are predictive of a finding of fitness, focusing on demographic factors, psychiatric factors, criminal factors, and psycholegal factors in an accused's life. The following section provides an overview of the research conducted to date on the various patient-level factors.

Demographic Factors

Overall, the research with respect to demographic variables is unclear. It is also difficult research to interpret, as demographic variables are known to correlate with other variables such as the presence of a psychotic disorder diagnosis. For example, severity of a diagnosis can influence a person's ability to maintain employment, which can impact demographic variables such as financial income, home configuration, and marital status. Steadman compared UST males with the general population, and found their profile to be one of average education, limited job skills, few community ties to family and employment settings, and unmarried status [7]. Reich and Wells later found lower levels of education and confirmed the higher rates of unmarried men found in UST populations as per Steadman [8]. This was also one of the first studies to recognize that UST defendants were more likely to be Black or of African descent. Rogers, Gillis, McMain, and Dickens later concluded that those found UST were more likely to be older, in transient living situations, and better educated [9]. These findings are clearly in contradiction to the previous findings. In their study, Rogers et al also focused on gender and concluded that females were more likely to be found UST [9]. However, this finding may have been due to the majority of the sample being female. In general, more males are in conflict with the law than females, and data suggest that more males may be referred for fitness assessments.

Nicholson and Kugler corroborated the previous findings of Steadman and Reich and Wells, and found that Caucasian individuals were less likely to be found UST, and single individuals were more likely to be found UST [7,8,10]. Two-thirds of those UST did not have steady employment, and the average level of education was less than ten years. Most recently, a study conducted in Hawaii found a significant race bias influencing fitness determinations such that Native Hawaiian (Asian) populations were more likely to be found UST than other populations; lending support to previous findings of race bias in said determinations [11].

Interestingly, it is also noted that some studies have found no relationship between demographic characteristics and fitness findings [12–14]. With respect to demographic factors and specific deficits on criteria for fitness to stand trial, Gay et al. confirmed the age-related findings of Rogers et al. within those found FST and those found UST, such that those who were found UST were more likely to be older, but did not find any relationship between demographic factors and deficits on the relevant criteria [6,9].

Psychiatric Factors

One of the earliest and most seminal findings for the influence of psychiatric factors on determinations of fitness comes from Hart and Hare [12]. Most recent research has thus shifted its focus away from disorders to specific symptomatology. Across all studies, research has found that the majority of UST accused have a history of psychiatric hospitalization, including more previous psychiatric admissions. Those with previous psychiatric hospitalization were found to be twice as likely to be UST compared to their never-hospitalized counterparts [15]. Those found UST are also more likely to be taking psychotropic medication, and one study found a significant relationship between findings of UST and medication non-compliance [16]. UST accused are also more likely to have a psychotic diagnosis (e.g. schizophrenia) or psychotic symptoms [6–8,10,15,17,18]. Those with a psychiatric diagnosis are five times more likely to be found UST, and in those with a psychotic illness specifically, the liability jumps to an eight-fold increase [6,17,19]. Regarding non-psychotic disorders, those with bipolar disorder are more likely to be impaired on psycholegal abilities than those with depression [20], such that the presence of affective disorders correlated with impairment on understanding the possible consequences of the proceedings. Finally, substance abuse disorders were not highly predictive of determinations of UST [9,17,21].

With respect to psychotic symptoms, research shows that symptoms of disorientation, delusions, and hallucinations are more profound in UST individuals [6,22]. Furthermore, legal impairment, as measured by the Fitness Interview Test (FIT) and the MacArthur Competence Assessment Tool—Criminal Adjudication (MacCAT-CA), was found to be correlated with both psychotic disorders and the presence of psychotic symptoms [19]. Rosenfeld and Wall also concluded that hallucinations, paranoia, and delusions were all related to the individual's inability to communicate with counsel, and disorientation was associated with misunderstanding of the legal proceedings (as measured by the MacCAT-CA) [14]. Other symptoms such as anxiety, hostility, or withdrawal are not generally found to be correlated with findings of UST, but some studies are starting to show that depressive symptoms and addiction withdrawal symptoms are associated with deficits on understanding the nature and object of the proceedings [19].

Intellectual disability seems to show little to no correlation with findings of fitness [10,14]. Only one study showed an association between significant intellectual impairment (i.e. an IQ score below 70) and findings of unfitness [23]. More research has started to emerge with respect to cognitive factors, such as verbal knowledge and working memory on findings of fitness [19]. Some recent research has found that IQ is a significant predictor of understanding the nature and object of the proceedings in psychotic defendants [20]. Cognitive abilities such as executive functioning, working memory, attention, and processing speed are found to be impli-

cated in understanding the proceedings as measured by the MacCAT-CA, but less so in appreciating one's own legal situation [24]. Comparatively, attention was found to be important across all areas of competency [24]. Furthermore, the authors found more variance in MacCAT-CA scores was accounted for by psychiatric and cognitive symptoms together, than when considering psychiatric symptoms alone; indicating a potential interaction or a moderating effect of psychosis on cognitive ability.

Most recently, a study conducted by Gay and colleagues assessed the relationship between psychiatric symptoms and deficits on specific psycholegal criteria [6]. It is one of the first studies to look at specific clinical variables and their relationship to impairment on the prongs of fitness as outlined by Dusky, the American fitness standard [25]. Gay et al. concluded that impaired mental health status, psychotic symptoms, and intellectual disability predicted success on the three fitness-specific prongs [6]. Impaired mental status was associated with all three Dusky prongs, namely, factual understanding of the proceedings (the American equivalent of understanding the nature and object of the proceedings), rational understanding of the proceedings (the American equivalent of understanding the consequences of the proceedings), and ability to communicate with counsel. Delusions were associated with impairment on rational understanding and with impairment on communication with counsel, and intellectual disability and thought disorganization were associated with impairment on factual understanding [6].

Criminal Factors

The research with respect to criminal factors (e.g. severity of crime, previous incarceration, etc.) has been contradictory. Most recently, a study published by Schreiber et al. compared offender and offence characteristics of those found UST against general offenders, and it found that those who were determined UST used weapons more often and had a history of prior arrests [21]. Although the results contradict Cooper and Zapf, who found no correlation between findings of UST and previous criminal history, the results are consistent with Nicholson and Kugler [10,17]. When considering offence type, early studies found correlations between the nature of the index offence and the fitness determination [10]. Some studies have supported the notion that violent crimes are more likely committed by defendants found UST [7,10,26], whereas other studies have found the opposite result, such that those who were charged with a nonviolent or property crime were twice as likely to be found UST [9,17,27]. Adding to the confusion, some studies have found no correlation of any kind with any criminal variables and fitness [6,9,28].

Psycholegal Factors

The research with respect to psycholegal factors and their influence on opinions of fitness to stand trial is inconsistent and limited. In part, this variability comes from the differences in measuring psycholegal abilities, which are decided by the jurisdiction in which the research is being conducted. As discussed above, there are a multitude of methods regarding how fitness can be assessed. The standardized forensic assessment instruments discussed may use vignettes or sentence completion tasks to test psycholegal ability, whereas during an unstructured interview, a clinician may pose a set of open-ended and closed-ended questions to measure psycholegal ability.

With respect to standardized testing, it is highly supported that successful performance on any of the validated tests is indicative of fitness [10,28,29]. However, as discussed previously, since standardized assessments are not preferentially used by clinicians [5], the rationale for the present study's methodology stems from this gap between what methods are used in fitness assessment research and those actually used in clinical practice.

Conclusion

The current review attempted to consolidate the last few decades of research conducted in the area of fitness assessment to provide a clearer understanding of how fitness determi-nations are being

made by clinicians. What is certain from the myriad of studies conducted on types of assessments used in practice and those relating to factors relevant to fitness determinations is that there is a gap between empirical study and clinical practice because there is not only a lack of consensus on which variables inform fitness determinations, but there is no recent research on those variables as they are currently assessed by clinicians: in an unstructured manner. The majority of studies relating to demographic factors that have found a correlation were unclear, and more recent studies have found almost no correlations, except for those who are older being more likely to be found UST. The most consensus on this topic has been found on research relating to psychiatric factors, where it is fairly clear that the majority of those found UST have a history of psychiatric symptoms or diagnoses; however, research is still minimal is in the area of intellectual disability and cognitive abilities. The research with respect to criminal factors is as unclear as it is with respect to demographic factors. However, of all the patient-level factors assessed in the last thirty years, it is most concerning that very minimal research (with no research occurring in Canada) has been conducted on the influence of the accused's psycholegal abilities as measured by clinicians in an unstructured manner on fitness determinations. As research is minimal in Canada, future studies should undertake to evaluate the use of fitness assessment and the influence of the various patient-level factors on fitness determinations as defined in Canadian law. However, studies should be conducted worldwide on how patient-level factors influence fitness determinations according to that country's legal standard, and in addition, studies should attempt to understand how those legal standards are measured and evaluated in the form of psycholegal abilities.

Conflict of Interest: none

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REVIEW ARTICLE

Neurocognitive predictors of confabulation in Schizophrenia: a systematic and quantitative review

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Confabulations, or false memories, are observed in various disorders, including schizophrenia. In forensic psychiatric assessment, this is problematic, particularly when garnering a clinical history and detailed account of the index offense(s) from the individual being charged. This study sought to quantitatively synthesize the existing literature regarding the frequency of confabulations in schizophrenia and its neurocognitive correlates. The findings suggest that patients with schizophrenia confabulated more than healthy controls for new information if it was related to old information. The relationship between confabulations and neurocognitive variables was inconsistent. Together, the results from this quantitative review has important implications for interviewing techniques in forensic psychiatric assessment. Specifically, the assessor should take great care not to ask leading questions or introduce unverified, contextual information into the interview, as it may result in a confabulation, rather than a more accurate account of the event.

Key words

Schizophrenia, confabulation, false memories, intrusions, neurocognition, source monitoring

Introduction

Confabulations, or false memories, are observed in various disorders, including schizophrenia. In forensic psychiatric assessment, this is problematic, particularly when garnering a clinical history and detailed account of the index offense(s) from the individual being charged. Numerous studies have identified that patients with schizophrenia confabulate more frequently than do healthy controls [1-4], though other studies have found no differences between these groups [5-7]. Confabulations in schizophrenia have important implications in forensic assessments with respect to the use of interviewing techniques. Additionally, identifying predictors of confabulations in schizophrenia may allow for a greater understanding of what subgroup of patients is more likely to confabulate. This quantitative review will aim to synthesize the findings on the frequency of confabulations in these studies, as well as the neurocognitive predictors of confabulation. To the best of our knowledge, no quantitative review employing meta-analytic methods has been undertaken on the neurocognitive predictors of confabulations in this patient population to date.

Confabulations

Variations of the Deese–Roediger–McDermott paradigm [8,9] tend to be used most frequently to measure confabulations. Participants are shown a list of words. They are then shown these words again, along with new words that either are or are not semantically related to the first set of words. Patients are asked to identify whether they have seen the word before, as well as how confident they are in their answers. An intrusion, whereby participants state a new word was previously presented, is considered to be evidence of confabulation. Research suggests that patients tend to confabulate for new, semantically related words more than do controls [10]. In contrast, several studies have found that both healthy controls and patients made comparable levels of intrusions when the new words were semantically related to the old words. Further, as the semantic relationship decreased, the number of intrusions deceased across both groups [5,11-13]. This suggests that anyone is susceptible to making confabulations when the new and old words are related semantically.

A common variation to this paradigm involves both the participant and experimenter generating words. Participants are later presented with the generated words and new words and are asked to identify whether the word is old or new. If they identify it as old, they are asked whether it was said by the experimenter or themselves. Patients were more likely than were controls to attribute new words to both the experimenter and the self [10,14] but tended to display a bias in labelling words as being said by the experimenter [14]. Thus, this may simply be a source monitoring deficit, rather than evidence of confabulations. Indeed, other research suggests that patients were more likely to misattribute self-presented words as being said by the experimenter and vice versa [13].

If patients with schizophrenia confabulate more than healthy individuals, this effect should be observed using other stimuli as well. Mammarella et al. [15] asked participants to either imagine an action or perform an action. Twenty-four hours later, they were presented with several actions and asked if they imagined it, performed it, or neither (i.e. a new action). Patients incorrectly attributed new actions as previously performed actions more than did controls, suggesting that patients did in fact confabulate that they had previously performed an action.

Other studies have used pictures and videos, which may tap into the visual aspect of confabulations (i.e. being able to visually represent a memory in one's mind). Several studies employing the DRM paradigm using pictures found that like when using words, both patients and controls confabulated at a similar frequency when new images were highly related to previously presented images. In contrast, however, patients confabulated more frequently than did controls on new images that were moderately related to previously presented images [16,17]. This suggests that while both patients and controls have a tendency to misattribute new stimuli as previously presented when they are related, patients with the illness have a greater tendency than do healthy controls to do this when the stimuli are not related.

Peters, Hauschildt, Moritz, and Jelinek [18] employed a similar methodology using videos but varied their valence: positive, negative, neutral, and delusional. Patients with schizophrenia confabulated more frequently than healthy controls for positive videos only. That is, for negative, neutral, and delusional videos, no differences in confabulation were found between patients with schizophrenia and healthy controls. This suggests that emotionality may play a role in confabulation, which makes sense, given that patients' real-world confabulations tend to have an emotional valence. This further speaks to the multitude of factors that likely play a role in predicting the likelihood of confabulations.

Neurocognition

Given that confabulations are related to one's ability to form memories, it is necessary to examine the neurocognitive predictors associated with this phenomenon. For instance, Nienow and Docherty [20] found that patients with schizophrenia were more likely than controls to confabulate, but this effect disappeared when intellectual ability and verbal working memory was taken into account. Because confabulations are associated with other disorders as well, it is possible that it is linked to specific neurocognitive deficits, rather than being associated with schizophrenia more broadly.

Various studies have identified that both semantic and working memory differentiated confabulators from non-confabulators but not episodic memory [5,6,21,22]. While Nienow & Docherty [20] found that verbal working memory was associated with confabulations, thought disorder accounted for variance above and beyond verbal working memory. Indeed, several studies have found that thought disorder is uniquely associated with the tendency to confabulate [12-14,23,24]. Thus, it appears that thought disorder plays a specific role in confabulations but that semantic and working memory may be uniquely associated with this phenomenon above and beyond symptomatology.

In general, previous findings suggest a relationship between deficits in executive functioning and confabulations. These findings have been consistent for both

source monitoring paradigms [5,10,24] and story-recall [22]. On the other hand, other studies have yielded contradictory findings [14,21]. Thus, these differences need to be further understood.

Other neurocognitive domains have received less attention to date than have memory and executive functioning. Attentional abilities do not appear to play a role in confabulations [25], but this has only been examined in a limited number of studies. Moreover, Brebion et al. [25] examined processing speed and found this to be unrelated to intrusions. It is possible that while processing speed did not play a role in the source discrimination task overall, it may still have played a role in the production of confabulations as suggested by the finding that patients were slower to reject new words than were controls [26]. Further, even though verbal fluency is suggested to be a possible neurocognitive endophenotype in schizophrenia [27,28], it was examined in only one study in its relation to confabulation. Deficits in category fluency were related to a tendency to confabulate new, semantically unrelated words [6].

Purpose

The purpose of this study was to undertake a quantitative review of the research literature accumulated to date on the neurocognitive predictors of confabulations in schizophrenia. It was hypothesized that (1) patients would confabulate more than would healthy controls and (2) semantic memory, working memory, and executive functioning would be associated with confabulations.

Methods

Literature Search

A computerized search was performed on Pubmed, PsycInfo, and Scopus to locate potential primary studies to include our quantitative review. The search terms “schizophrenia” or “psychosis” in combination with “false memory,” “false memories,” and “confabulation” were used. Of the identified primary studies that met inclusion criteria, references were examined for additional studies to include in the quantitative review. No remote date limit in searching the literature was set. Hence, the research literature was canvased up to 2016. Studies included ranged in publication date from 1995 to 2007.

Inclusion Criteria

The search yielded 250 candidate research papers. After duplicates were removed, five primary studies met inclusion criteria. The following inclusion criteria was utilized: (1) Participant samples that included patients with schizophrenia and healthy controls; (2) commercially available neuropsychological test measures were employed (i.e., no experimental paradigms were considered); (3) quantitative data (i.e., means and standard deviations) were available so that an effect size could be computed; (4) published findings in peer-reviewed academic journals and written in English. Hence, no dissertations were included, nor studies published in non-English, academic journals.

Exclusion Criteria

Primary studies that combined healthy and psychiatric controls were excluded. Studies examining patients at clinically high risk or those with first-episode psychosis were excluded from our quantitative synthesis because previous work has demonstrated that the neurocognitive profile of these populations is different from that of patients with a diagnosis of schizophrenia [29,30]. Studies that looked at only the moderating effect of IQ on confabulation were not included. Due to the problematic nature of IQ being a composite score of multiple neurocognitive domains, it provides little information as to the cognitive processes responsible [31]. Studies using a source monitoring paradigm that did not include data for intrusions (that is, attributing a new word as a previously stated word) were not included, as this was the variable of interest. The derived effect size from anything but raw data is never exact, but rather an estimate of effect size. Hence, to be precise in our overall estimate of effects, studies that only provided test statistics (e.g., F, t, p-values) but not means and standard deviations were not included. The primary reasons for exclusion was that the study did not examine confabulations, neuropsychological test

measures were not employed, or means and standard deviations were not available to compute an effect size.

Moderating Variables

Recorded demographic variables included age, gender, education, and IQ. Clinical variables examined included duration of illness and symptomatology (i.e., positive symptoms, negative symptoms, and thought disorder). The demographic and study characteristics for the studies that met inclusion criteria are outlined in Table 1. Due to the various measures of symptomatology used across studies, this data was not recorded in the tables.

Results

Of the 250 results, five primary studies met inclusion criteria, resulting in a total sample size of 292 (144 healthy controls, 148 patients with schizophrenia).

Due to the limited number of studies and the wide range of methodology and neuropsychological test measures employed, an effect size analysis, rather than a meta-analysis, was deemed most appropriate and hence undertaken.

Statistical Analyses

For each of the studies, the mean and standard deviation (SD) for both patients and controls were extracted for the assessment of confabulations. In addition, the sample size for both groups were extracted. This information was used to calculate Cohen's d [32] for confabulations for each study. Cohen's d was chosen because it accounts for the differing variance in control and patient samples [33]. When effect sizes were reported for the correlation between neurocognitive functioning and confabulation, this data was extracted as well. All effect sizes were converted to Cohen's d. This was done because Pearson's r is influenced by sample size and the purpose of using effect sizes is to provide meaningful information about an effect, above and beyond what can be provided by significance testing, which, incidentally, is also influenced by sample size [33]. Lastly, the magnitude of effect was not interpreted in keeping with Cohen's [32] heuristic framework but rather that of its clinical meaningfulness in the context of forensic psychiatric assessment [33].

Confabulations

The effect sizes for confabulations for each study can be found in Table 2. Overall, the first hypothesis appears to be supported: in six of the eleven computations, patients had a greater tendency to confabulate than did controls. Here, patients were more likely to confabulate for new words that were semantically related to previously stated words. It appears that patients were more likely than controls to attribute new, related words to both the experimenter and themselves. That being said, one study [13] used an index of bias, rather than the number of confabulations, and found that controls actually demonstrated a greater bias toward attributing new words as old words. This was found for both related and unrelated words. It should be noted that there was significant heterogeneity amongst studies, as demonstrated by the wide confidence intervals for each effect (Figure 1).

Neurocognitive Variables

Correlations between confabulation scores and neurocognitive scores can be found in Table 3. Overall, the findings were mixed for both executive functioning and working memory. No other neurocognitive variables were examined in the included studies. Further, very few studies reported usable quantitative data on these variables. Three studies demonstrated that executive functioning had a large association with participants' abilities to discriminate between old and new words, but three studies reported no association.

Table 1. Summary of Demographic and Clinical Variables

Note. All values rounded to one decimal place; Duration of illness = average number of years; data not available (-); a = assessed by WAIS-R; b = assessed by Shipley Institute of Living Scale; c = assessed by NART-R

		Controls					Cases					
Study	Year	*n*	Age *M*(SD)	% male	Years of Education *M*(SD)	IQ *M*(SD)	*n*	Age *M*(SD)	% male	Years of Education *M*(SD)	Duration of Illness *M*(SD)	IQ *M*(SD)
Huron et al. [34]	1995	30	29.3(6.7)	66.6	11.5(3.5)	102.2(13.7)[a]	30	29.0(6.9)	66.6	10.7(2.6)	7.8(5.3)	85.1(13.9) [a]
Moritz et al. [14]	2003	21	27.0(10.7)	52.4	11.5(1.7)	-	30	31.1(8.3)	70.0	12.0(1.8)	4.5(6)	-
Neinow & Docherty [19]	2004	52	37.5(7.2)	48.1	14.6(1.7)	105.6(8.4)[b]	39	35.9(8.9)	53.8	12.4(1.6)	-	88.3(12.6)[b]
Peters et al. [13]	2007	20	35.2(9.7)	90.0	-	110.8(10.3)[c]	23	36.3(13.1)	78.3	-	7.0(7.4)	104.5(13.8)[c]
Vinogradov et al. [10]	1997	21	38.5(7.6)	42.8	14.9(1.4)	111.1(5.9)[b]	26	40.2(9.6)	53.8	13.9(1.7)	-	98.9(12.8)[b]

Table 2. Means, Standard Deviations, and Effect Sizes for Frequency of Confabulations

Note. All means are the mean number of intrusions made for that outcome variable unless otherwise noted; a = attribution bias index; *d* = Cohen's *d*

		Controls		Cases		
Study	Outcome Variable	*n*	*M*(SD)	*n*	*M*(SD)	*d*
Huron et al. [34]	Intrusions	30	1.90(1.90)	30	2.00(2.70)	0.04
Moritz et al. [14]	Unrelated word, attributed to experimenter	21	0.05(0.20)	30	0.03(0.20)	0.03
	Unrelated word, attributed to self	21	0.10(0.30)	30	0.03(0.20)	-0.28
	Related word, attributed to experimenter	21	0.24(0.40)	30	0.97(1.10)	0.83
	Related word, attributed to self	21	0.14(0.40)	30	0.13(0.40)	-0.03
Nienow & Docherty [19]	New word reported as thought[a]	52	0.31(0.19)	39	0.38(0.24)	0.33
	New word reported as said[a]	52	0.19(0.13)	39	0.17(0.13)	-0.15
Peters et al. [13]	hits vs false alarm critical lures[a]	20	0.86(0.12)	23	0.72(0.12)	-1.17
	hits vs false alarm new[a]	20	0.35(0.20)	23	0.27(0.20)	-0.4
Vinogradov et al. [10]	Related word, attributed to experimenter	21	2.10(1.70)	26	3.30(4.00)	0.38
	Related word, attributed to self	21	0.9(1.1)	26	2.6(4.1)	0.54

Table 3. Correlations between Confabulations and Neurocognitive Variables Reported in Studies

Study	Outcome Variable	Neurocognitive Variable	Cognitive Domain	*d*
Huron et al. [34]	Intrusions	Wechsler Memory Test[a]	Memory	-
Moritz et al. [14]	Recognition deficits	RAVLT long-term recall	Memory	1.07
	Source monitoring	WCST[a]	Executive functions	-
Nienow & Docherty [19]	-	Digit Span Backwards[b]	Working Memory	-
Peters et al. [19]	Attribution bias	WCST[a]	Executive functions	-
	Attribution bias	BADS[a]	Executive functions	-
	Discrimination index	BADS	Executive functions	1.81
Vinogradov et al. [10]	Source discrimination	WCST and NSI[c]	Response disinhibition	0.98
	Source discrimination	WCST and NSI[c]	Executive dysfunction	0.90

Note. *d* = Cohen's *d*; RAVLT = Rey Auditory Verbal Learning Test; WCST = Wisconsin Card Sorting Test; BADS = Behavioural Assessment of Dysexecutive Syndrome; NSI = Neurological Signs Inventory; a = no relationship was found but statistic not reported; b = statistic not reported or commented on in the results; c = factor score

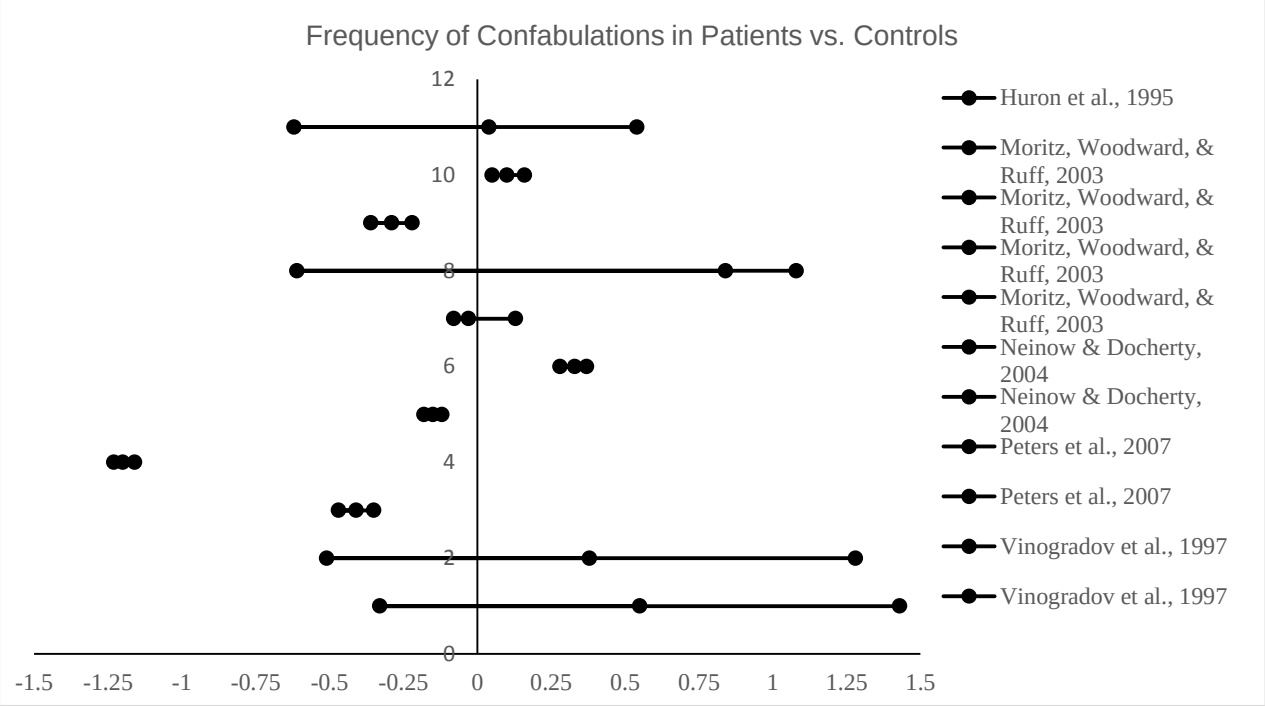

Figure 1. Forest plot demonstrating effect size (Cohen's *d*) and 95% confidence interval

With respect to memory, long-term memory demonstrated a large association with confabulation, while a composite measure of memory did not. This is not surprising given that a composite score provides little information as to the specific aspects of memory involved. Given the conflicting findings and relatively few reported statistics, the second hypothesis could not be answered.

Discussion

The purpose of this study was to systematically and quantitatively assess the frequency of confabulations in patients with schizophrenia compared to healthy controls, as well as the neurocognitive variables associated with confabulations. It appears that in general patients with schizophrenia are more likely to confabulate for new, related words than are healthy controls, which is congruent with our first hypothesis. It should be noted, however, that not all studies supported this conclusion. The findings regarding new, unrelated words were mixed and typically produced less meaningful effects sizes.

It appears that patients with schizophrenia may confabulate more than healthy individuals when new information is related to previous memories. Thus, when an old memory is triggered, patients may be more likely to integrate new information into that memory that did not actually happen.

In contrast, if the new information is not related to an old memory, patients do not seem to differ from healthy individuals in their likelihood to confabulate. This finding has important implications for interviewing techniques in forensic psychiatric assessment. Specifically, leading questions may be particularly problematic when questioning the index offence, as it may introduce new, but obviously related information that was not part of the original memory. Additionally, care should be taken not to introduce unverified information from the file into the interview, as this may result in a confabulation rather than a more accurate account of the event.

It was further hypothesized that executive functioning, semantic memory, and working memory would predict confabulations. Due to the limited number of cognitive domains measured and quantitative data reported, this hypothesis was not testable. Qualitatively, however, long-term memory appeared to have a large association with confabulation. Individuals who have difficulty remembering information over a long delay, may also have difficulty remembering events that occurred in the distance past. Thus, patients with schizophrenia who have deficits in long-term memory may be more prone to confabulate about previous events, particularly when presented with information that is somewhat related to their memories. Findings pertaining to executive functions were mixed and as such, it is unclear what role this may play in confabulations.

Given the inconsistent findings pertaining to neurocognition, it is possible that symptomatology is more predictive of confabulations than are deficits in neurocognition. While findings related to positive and negative symptoms are inconsistent, thought disorder appears to play a prominent role in confabulations [12,14,23,24]. Moritz et al. [23] hypothesized that this may be related to greater semantic activation in patients with thought disorder, resulting in additional, less related associations, compared to those without thought disorder. This leads patients to believe that new, semantically-related words have been shown before because those schemas were previously activated in memory. This theory is consistent with findings from several other studies [11,34,35]. Accordingly, it is possible that there are neurocognitive correlates underlying the relationship between thought disorder and confabulation specifically, but additional research is required.

There are several limitations that we are mindful of as it pertains to our findings. It should be highlighted that only studies examining both confabulation and neurocognition were included. Due to the limited number of studies that have explicitly examined the relationship between confabulation and neurocognition, any conclusions that are drawn from this study should be interpreted with caution. Yet, our quantitative synthesis of this literature

is inherently more robust than a single primary study. In light of our collective findings, this review should serve as a starting point for further research in this area. Secondly, it should be noted that the DRM paradigm often asks patients to discriminate the source of the information (i.e., the experiment vs the self; thought about an action vs. performing an action). This means that an inherent limitation to this methodology is that instead of assessing confabulations, these studies may in fact be tapping into source monitoring deficits. Nevertheless, patients were more likely than controls to attribute new, related words to both the experimenter and themselves, which suggests that these differences may not simply be a source monitoring deficit. Greater research is needed to improve the methodology used to measure confabulations, however.

Conclusion

In conclusion, this study suggests that patients with schizophrenia may be more likely to confabulate than are healthy individuals when new information is presented that is related to an old memory. These findings are particularly important for interview techniques in forensic psychiatric assessment. The assessor should take great care not to ask leading questions or introduce unverified, contextual information into the interview, as it may increase the likelihood of confabulation. With respect to specific predictors, deficits in long-term memory appear to be related with an increased likelihood of confabulating, though thought disorder may be a more reliable predictor. Future research should examine the neurocognitive correlates that underlie this relationship.

Conflict of Interest: none

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LETTER TO THE EDITOR

Criminal court ordered assessments in France and Canada: a comparison

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Dear Editor,

France is one of the European countries at the genesis of Forensic Psychiatry, whereas Canada is viewed as the country where modern, scientific-based, Forensic Psychiatry was developed. The French legal system is civil law based whereas the Canadian legal system, including the federal Criminal Code, is common law based[i] [1]. Therefore, there are fundamental differences between France and Canada in terms of the legal process which also impacts the way Forensic Psychiatry assessments are conducted. Other major differences reside in the inquisitorial aspect of the French system as opposed to the accusatorial nature of proceedings in Canada. The Prosecutor in Canada is a lawyer who sits beside the Defense Lawyer against whom he/she argues the case. In France, the Prosecutor is at the level of Judge, which could be perceived as an imbalance in the legal system. In both countries, the role of the Forensic Psychiatrist is to highlight the relevant issues pertaining to the legal case of an individual; and the Judge remains free to follow the opinion of the experts, after carefully weighing the evidence. Despite the similarity of the role the forensic psychiatrist plays in both countries, we would like to highlight the major differences in the Legal Background, the Legal Proceedings and the Forensic Psychiatry Processes. Indeed, comparing both systems is a way to help each professional to reflect on their own practice in their jurisdiction. This may also provide some understanding of the context of medico-legal studies when performed in Canada or France. The figure below provides an overview of the legal pathways involving criminal court order assessment in Canada and France.

Legal Background

In the introduction, we specified some obvious differences of the legal framework between the two countries. It appears relevant to focus on some specific aspects pertaining to forensic psychiatry, from an assessment perspective. The role of the Judge, the legal concept of criminal responsibility, and its possible legal outcomes are outlined below.

In Canada, the Judge is a person who makes a final decision in a case and who chooses the appropriate sentence. In France, there are multiple possible roles for a Judge, and often the Judge does not cumulate these roles (ex. Judge who sentences, Judge who controls the custodial situation of patients and inmates, Judge who ensures an impartial process during the criminal investigation, Judge who ensures that the convicted may have some adaptation in sentencing) [2].

The Canadian legal definition of criminal responsibility is detailed in the Criminal Code, by implementing the concept of legal or moral wrongfulness of the action (section 16) [3]. An individual who may have been suffering from a mental disorder at the time of the offence can be found responsible as the mental state may not have been sufficient to explain that he could not control his action. The French definition of criminal responsibility is broader and somewhat left to the discretionary decision of the expert (article 122-1 of the French Penal Code; capacity of consenting, discerning and controlling his/her actions were abolished or altered) [4]. This does not necessarily help to form a cohesive opinion.

There are only two options in terms of criminal responsibility in Canada, either the individual is criminally responsible or not criminally responsible on account of mental disorder (NCR) [3]. The French model developed three options in terms of criminal responsibility: an individual can be found responsible, not criminally responsible, or partially responsible [4]. This third option is often used when someone presents with severe psychiatric symptoms of a personality disorder with impulse control issues. It is commonly reported that in this third situation, although an individual is supposed to receive a lower sentence (because of partial responsibility as opposed to full), he/she is often given a more severe sentence with the notion that the personality disorder may be difficult to treat and the risk of re-offending remains high [5].

Legal Proceeding

Some relevant points of the legal proceeding in comparing both countries can be highlighted in describing how the Court exercises the law, orders assessments, and makes its final decision. The nature of the questions asked to the expert, the timeline when an assessment can be ordered, and the legal consequences for individuals found not criminally responsible or unfit to stand trial are salient points that should be addressed.

In Canada, a court ordered assessment has one specific question, which can be one of the following: criminal responsibility, fitness to stand trial, risk, or dangerous offender status. The assessment is requested at the pre-trial or trial phase (once a Judge is notified about the case). Only pre-sentencing assessments are ordered. Once the sentence is given, no other assessment can be ordered unless there are new charges. Once the accused is found NCR or Unfit to Stand Trial, the Judge orders the transfer into the forensic system, where the Review Board will take over the role of custodial control [3].

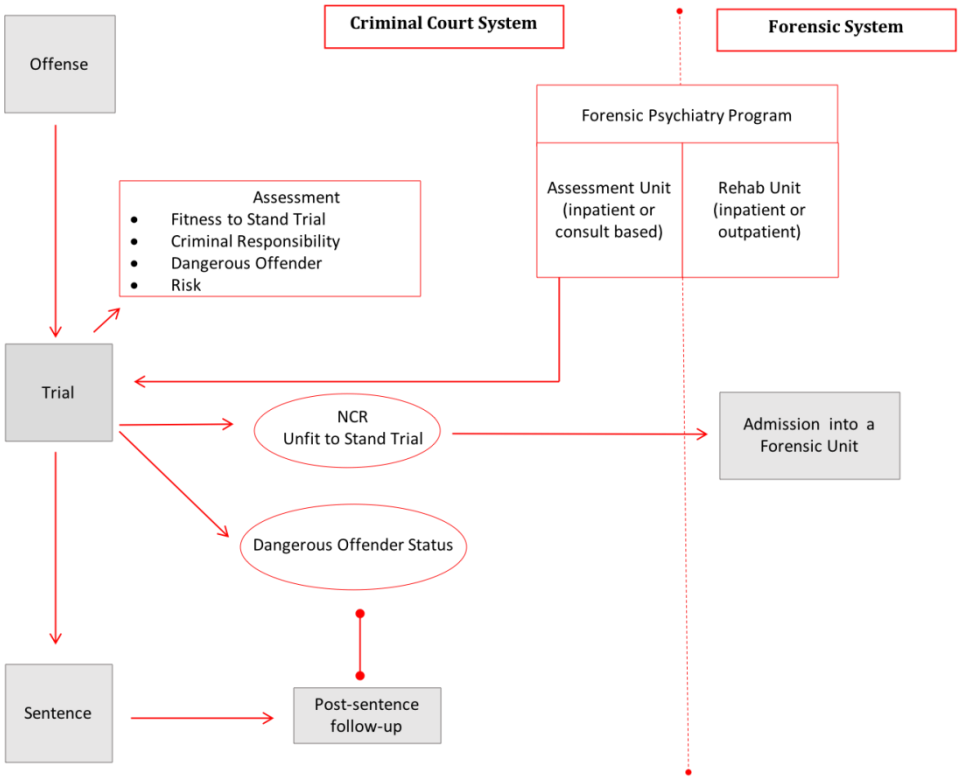
In France, one court ordered assessment may have many questions, including criminal responsibility, fitness to stand trial, risk, opportunity of treatment, etc. They can also be created by the Judge. The clinician is requested to answer all the questions in the report. A court ordered assessment can be requested during the investigation phase, either by the Prosecutor or the Judge who overviews the legal proceeding (this Judge's role is not to adjudicate) while gathering the evidence. Pre and post-sentencing assessments can be ordered. The pre-sentencing assessment will guide the Judge in his final decision. The post sentencing assessment will help orientate the rehabilitation process of the inmate, or will indicate if a lower level of custody could apply in managing the risk (article 712-21 of the Penal Procedural Code) [4]. After being found NCR, the Judge may order the patient's transfer into a psychiatric unit (if found to be dangerous) which could be a general psychiatry inpatient unit - with no Forensic background (article 706-136 of the Penal Procedural Code [6]. Decisions regarding custodial control will be made by another Judge of the civil system who also controls any involuntary admissions (Judge of the Liberties and Detention) [7].

Forensic Psychiatry Process

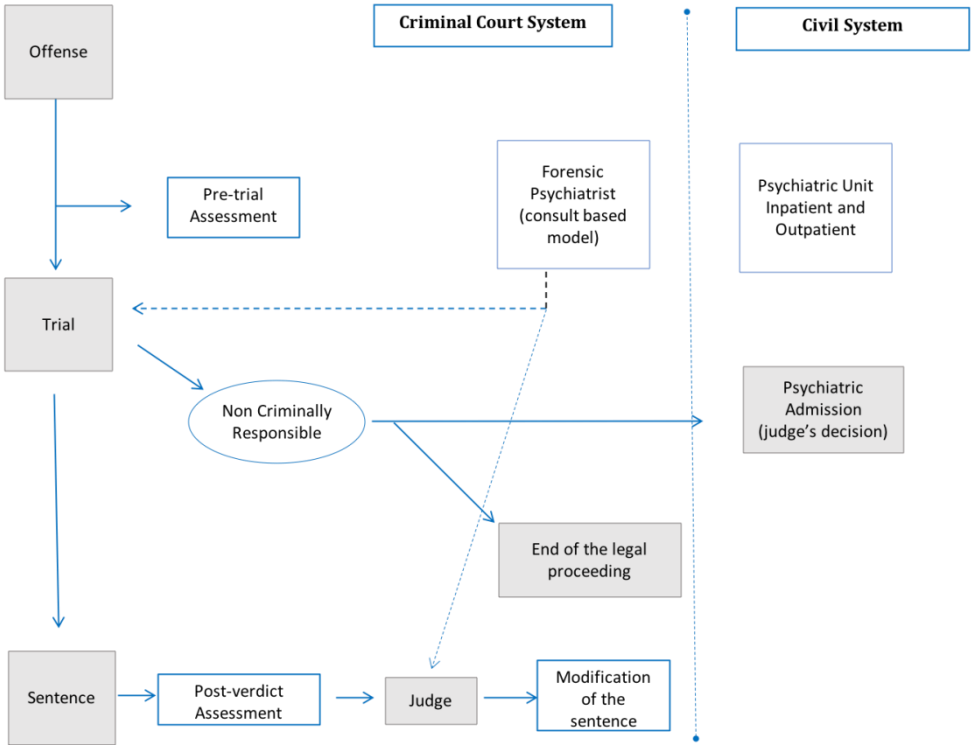
The legal background and legal proceedings are the basis of the forensic practice. This has permitted to develop the way the forensic disciplines have been exercised; and how, to some extent, political decisions have helped allocate funds for this medico-legal field. There are differences in terms of location, staff involvement, method used and time spent on a forensic psychiatric assessment, in each country.

In Canada, the assessment can be conducted in a forensic psychiatry program, where all staff members have developed a specific expertise in forensic mental health. Particularly, the assessments can be conducted in a dedicated inpatient unit, where the accused remains in custody. Information is gathered by several team members such as psychologist, social worker, nurse, occupational therapist, etc. In addition, the structured risk assessment tools are widely used during the assessment. The assessment is often the result of multiple consults compiled to corroborate the information given by the accused.

Canadian System



French System



In France, the lack of a dedicated program for Forensic Psychiatry does not permit an extensive collaboration and often results in assessments conducted by one individual with no discussion about the case. The assessments are done according to a consult-based model. All the information has to be gathered by the psychiatrist. Although some psychiatrists use risk assessment tools, they are typically not widely used. Psychiatrists rely mostly on their professional judgment, which can be dangerous as it has been published that not using structured professional judgment tools in predicting risk equates to giving a random opinion [8]. The report often follows a one-time interview with the accused.

Conclusion

These characteristics relate to the criminal court processes and the steps that an accused will undergo. We have not detailed what happens to individuals who enter the forensic system in Canada or the civil psychiatric system in France. Assessments will take place at this stage but will not be ordered by the criminal court in either country. There are many differences in terms of the theoretical and practical aspects of Forensic Psychiatry. If one aspect can be summarized, we can say that in France, the process seems more beneficial to the rehabilitation of the individual, as it permits an assessment at any time to evaluate the risk and the benefit of a release from custody; in Canada, the practice of Forensic Psychiatry is based on a scientific model which strengthens the level of evidence provided to the court.

Conflict of interest: none

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Note

[i] Quebec is the only province in Canada which is civil law based, having been colonized by the French. The Criminal Code of Canada (R.S.C., 1985, c. C-46), which contains provisions relating to Forensic Mental Health under Part XX.1, is federal legislation and it is rooted in the common law.

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JURISPRUDENCE

Restriction of Liberties under the Ontario Review Board after *(Re) Campbell*

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In Canada, Review Boards are established under Part XX.1 of the *Criminal Code of Canada*. The role of these independent tribunals is to make and review dispositions and decisions concerning persons found Not Criminally Responsible on Account of Mental Disorder or Unfit to Stand Trial. Under Part XX.1, there exist certain provisions to protect the liberty interests of accused persons who remain under the authority of a provincial or territorial review board. These provisions trigger mandatory hearings before the Review Board. In *(Re) Campbell*, counsel for the accused argued before the Board that a transfer from one secure unit to a more secure unit required notice to the Board of a restriction of liberty and furthermore, that the delay in notification resulted in a section *7 Charter* breach and that a remedy under section 24(1) of the *Charter* was due. The Court of Appeal dismissed the appeal, confirming the Board's decision that there was insufficient evidence regarding the accused's liberty norm before the transfer and her liberty status after the transfer to conclude that notice to the Board was required. Furthermore, the Court ruled that the transfer was the least onerous and least restrictive measure in the circumstances. The *Campbell* decision introduced an enhanced interpretation of the "significantly increasing the restrictions on the liberty of the accused" test by adopting a contextual approach which takes into consideration the accused's liberty status before and after the decision to restrict the accused. Once a restriction is deemed to reach that threshold, the Board must determine whether the hospital's measures were the least onerous and least restrictive in the circumstances. The *Campbell* decision will undoubtedly impact the way hospitals and review boards view restrictions of liberty, giving way to the potential for an increasing number of *Charter* cases argued on the grounds of alleged section 7 violations.

Keywords

Not Criminally Responsible, Mental Disorder, NCRMD, Criminal Code, Restriction of Liberty, Least onerous, Least restrictive, Liberty Norm, Liberty Status, Charter

Introduction

In Canada, Review Boards (hereinafter Boards) are established under Part XX.1 of the *Criminal Code of Canada* (hereinafter *Criminal Code*)[i]. The role of these independent tribunals is to make and review dispositions and decisions concerning persons found Not Criminally Responsible on Account of Mental Disorder[ii] (NCRMD) or Unfit to Stand Trial[iii] (UST). The Board panel is composed of no fewer than five members with differing areas of expertise, including an alternate-chairperson who is a lawyer of at least 10 years' experience or a judge or a retired judge[iv], a psychiatrist, a psychologist, a legal member, and a public member.[v] Decisions of the Board may be appealed to the appellate court where the decision was made[vi] [1].

The state of the law in Ontario

Under Part XX.1, there are certain provisions to protect the liberty interests of accused persons found NCRMD or UST who remain under the authority of a provincial or territorial Board. When the Officer-in-Charge[vii] of the designated hospital (as defined under the *Mental Health Act*) significantly increases the restrictions on the liberty of the accused, these provisions are triggered [2].

The 7-day trigger

Section 672.56 speaks directly to restrictions on the liberty of the accused. Hospitals delegated by the Board can make decisions to increase or decrease the liberties of an accused person within the limits of the disposition.[viii] This section also explicitly requires that the Officer-in-Charge of the hospital make a record of

the increased restrictions on the file of the accused and provide notice to the accused of the increase as soon as practicable. The Officer-in-Charge shall also give notice to the Board if the increased restrictions remain in place for a period exceeding seven days[ix] [1].

Mandatory Review Hearing

Section 672.81(2.1) requires the Board to hold a hearing to review a decision to significantly increase the restrictions on the liberty of the accused, ***as soon as practicable*** after receiving the notice from the Officer-in-Charge[x] [3]. At the hearing, the witness for the Hospital (typically the attending psychiatrist), will explain why the decision was made to increase the restrictions on the liberty of the accused. The Board will then determine whether the actions of the Hospital were the least onerous and least restrictive in the circumstances[xi] [4-6].

Confinement under Provincial Legislation

Confinement under provincial mental health legislation, such as the *Mental Health Act*[xii] in Ontario, does not trigger these restriction review provisions. For example, if an individual residing in the community under a Conditional Discharge Disposition is readmitted to a forensic hospital under the authority of a Form 1 of the *Mental Health Act*[xiii], this would not constitute a significant increase on the restriction of the accused's liberties [2,7].

The Campbell Decision

The Ontario Court of Appeal released its decision in *(Re) Campbel*[xiv] (*Campbell*) on February 14, 2018. In Campbell, the accused was found NCR in 2004 and had spent ten years at the Brockville Mental Health Centre before being transferred to the Royal Ottawa Hospital (the Royal) where she was ordered to be detained on a Secure Forensic Unit. Roughly six months into her detention at the Royal, Campbell began using illicit substances including alcohol, cocaine, and amphetamines. In an effort to curb her substance use, the Royal reduced her privilege levels and eventually moved her from one Secure Forensic Unit to a more Secure Forensic Unit [8].

The Royal notified the Board of the increase on the restrictions of Ms. Campbell's liberties two months after her transfer to a more secure unit. At the mandatory review hearing that followed under section 672.81(2.1), Ms. Campbell's counsel argued that the delay in notification resulted in a section 7 Charter breach and a section 24(1) remedy was due[xv] [9,10].

The Central Issue and the Board's decision

The Board was divided on whether notice of a restriction of liberty was required, the majority concluded it was not, and therefore did not consider Ms. Campbell's *Charter* arguments. It concluded that the Royal's decision to move Ms. Campbell from one Secure Forensic Unit to another more Secure Forensic Unit was the least onerous and least restrictive measure in the circumstances. The Board emphasized that the transfer was a treatment decision, stemming from the Hospital's efforts to control Ms. Campbell's consumption of illicit substances which had an impact on her mental health and level of risk.

Grounds for appeal

The appellant raised four grounds for appeal, the primary of which focused on whether the Royal should have notified the Board of the change in Ms. Campbell's liberty status. For the purposes of this article, we will focus solely on the issue of notice to the Board. The parties asked for guidance from the Court of Appeal on this issue given that there is ambiguity in how to apply section 672.56(2). At the root of this issue is the test for identifying which restrictions on the liberty of the accused rise to the level of requiring notice to the Board[xvi] [8].

Ruling and Interpretation

The appeal was dismissed. The Court of Appeal agreed with the Board's conclusion that the transfer was the least onerous and least restrictive measure in the circumstances. In its reasoning, the Court introduced new language to assist hospitals in determining when notice to the Board is required under section 672.56(2). The Court asked, "How significant is significantly?"[xvii] Weary of setting the bar too

high (sacrificing the liberty interests of accused persons) or too low (creating unnecessary mandatory hearings and placing the Board in the position of second-guessing many of the hospital's decisions)[xviii], the Court viewed section 672.56(2) as a contextual framework in which the Board has the role of safeguarding the liberty interests of accused persons [8].

The "Liberty Norm"

The Court was tasked with carefully delineating the approach hospitals must adopt in determining when notice to the Board is required. In its reasons, the Court explains that Hospitals must consider the liberty status of the accused before and after making decisions that increase restrictions on the liberty of the accused. At paragraph 65, the Court writes:

"*Calibrating the **liberty norm** requires consideration of the **duration** and **pattern** of liberty the NCR accused was experiencing before the decision or decisions resulting in increased restrictions on liberty. Determining the **liberty norm** does not ask what the individual may have been entitled to, but what he or she was actually experiencing before the increased restrictions were put in place. The liberty must be of sufficient duration to have become, objectively speaking, the NCR accused's norm*" [emphasis added][xix]

This contextual approach requires that the hospital not only scrutinize the decision at the exact moment of increasing the restrictions on the liberties of the accused; it must also determine whether there was a pattern over time of restrictions resulting in a "whittling" of the accused's liberty interests.[xx] The approach is carefully outlined at paragraph 66 of the Court's Reasons where it explains:

"*The pre-existing liberty norm cannot always be determined by looking to the very moment before a decision is made that results in increases in restrictions on liberty. Decision by decision, an NCR accused's liberty interests may be whittled away over a period of time. While any one decision may not result in a significant increase in restrictions on liberty, all of the decisions combined may have this effect. Accordingly, when determining the NCR accused's liberty norm, hospitals should take a contextual approach, one that considers the individual's pattern of liberty in the recent past.*"[xxi]

Once the liberty norm is determined, the hospital must compare it against the accused's liberty status following the increased restrictions. The change in liberty status must be reported to the Board where there is a clear deviation from the liberty norm. In its plainest iteration, the change in liberty status must not be trivial, but significant enough that a reasonable person, having knowledge of all of the circumstances, would think that the Board should be notified. The Court also opined that when the Hospital is in doubt, it should provide notice to the Board.[xxii] In this case, the Court expressed that there was insufficient information regarding Ms. Campbell's liberty norm before and after the transfer to draw the conclusion that the restrictions rose to the level of requiring notice to the Board [8].

Conclusion

What does this mean for forensic hospitals moving forward? Hospitals should be aware of the new language introduced in *Campbell* and the contextual approach espoused by the Court of Appeal. There will be clear cases where notice of a restriction of liberties ought to be provided to the Board—for example, when an accused living in the community under a detention order is readmitted to hospital for a period exceeding seven days. However, there will inevitably be subtler cases. The contextual approach permits a broader interpretation of a restriction of liberty, opening up the potential for *Charter* litigation. Moving forward, hospitals must scrutinize their decisions to limit an accused's liberty interests by measuring the duration and pattern of liberty the accused was experiencing before the restrictions were imposed (liberty norm) and contrasting it with the liberty status resulting from the restrictions. Deviation from the liberty norm must be significant enough that a reasonable person would report it to the Board. When in doubt, hospitals should report the restriction to the Board. Although the interpretation of "significantly" increasing the restrictions on the liberties of the accused may have changed, the result remains much the same: the hospital bears the onus of proving that the restriction of liberty was the least onerous and least restrictive measure in the circumstances. Hospital staff should continue to document the

circumstances leading up to the restriction and the reasoning behind their clinical decision to restrict the liberty interests of the accused and be prepared to defend that decision before the Board.

Conflict of interest: none

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Notes

[i] *Criminal Code*, R.S.C., 1985, c. C-46, s. 672.38(1) [hereinafter "*Criminal Code*"]

[ii] *Criminal Code*, supra note 1, s.16 (1) "No person is criminally responsible for an act committed or an omission made while suffering from a mental disorder that rendered the person incapable of appreciating the nature and quality of the act or omission or of knowing that it was wrong."

[iii] *Criminal Code*, supra note 1, s. 2 "unfit to stand trial" means unable on account of mental disorder to conduct a defence at any stage of the proceedings before a verdict is rendered or to instruct counsel to do so, and, in particular, unable on account of mental disorder to: (a) understand the nature or object of the proceedings, (b) understand the possible consequences of the proceedings, or (c) communicate with counsel."

[iv] *Criminal Code*, supra note 1, s. 672.4(1)

[v] *Criminal Code*, supra note 1, s. 672.39; the *Criminal Code* requires that at least one member of the Review Board be entitled to practice psychiatry, and at least one member have experience in mental health and be entitled to practice psychology. In Ontario, the panel typically also has a lawyer and a public member.

[vi] *Criminal Code*, supra note 1, s. 672.72

[vii] *Mental Health Act*, RSO 1990, c M.7 [hereinafter "*Mental Health Act*"]; defines the Officer in Charge as the officer who is responsible for the administration and management of a psychiatric facility

[viii] *Criminal Code*, supra note 1, s. 672.56(1)

[ix] *Criminal Code*, supra note 1, s. 672.56

[x] See: *(Re) Saikaley*, [2012] O.J. No. 572: "As soon as practicable" does not imply a set time-frame to hold a mandatory hearing under s. 672.81(2.1), rather it was the intent of Parliament "that the restriction hearing be set, held and concluded expeditiously." [para 68]

[xi] *Not Criminally Responsible Reform Act*, SC 2014 c-6. In July 2014, Part XX.1 of the *Criminal Code* was amended by parliament in Bill C-14, the *Not Criminally Responsible Reform Act*. Section s. 672.54 used to read "least onerous and least restrictive", this language was replaced by "necessary and appropriate" under Bill C-14.

See also: *Osawe (Re)*, 2015 ONCA 280, 125 O.R. (3d) 428, at para. 45; and *Ranieri (Re)*, 2015 ONCA 444, 336 O.A.C. 88, at paras. 19-21.

[xii] *Mental Health Act*, supra note 7, see also: *Centre for Addiction and Mental Health v. Young* (2011), 273 C.C.C. (3d) 512

[xiii] *Mental Health Act*, supra note 7, Form 1, s. 15

[xiv] *Campbell (Re)*, 2018 ONCA 140 [hereinafter "*Campbell*"]

[xv] *Canadian Charter of Rights and Freedoms*, 1982, R.S.C. 1985, App. II, No. 44, Schedule B, s. 7, s.24(1); In *R. v. Conway*, 2010 SCC 22, [2010] 1 S.C.R. 765, the Supreme Court of Canada ruled that Review Boards, as specialized tribunals created under the *Criminal Code*, have the jurisdiction to decide *Charter* issues.

[xvi] *Campbell*, supra, note 14 at para 5-6

[xvii] *Campbell*, supra note 14 at para 62

[xviii] *Campbell*, supra note 14 at para 62-63

[xix] *Campbell*, supra note 14 at para 65, [emphasis added]

[xx] *Campbell*, supra note 14 at para 66

[xxi] *Ibid*

[xxii] *Campbell*, supra note 14 at para 69

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