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Supporting Reintegration in Corrections by Addressing Problematic Substance Use

An Environmental Scan

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Executive Summary

Introduction

Problematic substance use (PSU) can negatively affect the outcomes of those involved with the criminal justice system: it can contribute to criminal behaviours, hinder progress within the justice system and create difficulties for those reintegrating into the community. This fact is concerning as approximately 75% of individuals arrive at Canadian federal institutions with a serious substance use problem (Correctional Service Canada [CSC], 2010). Further, those involved in the criminal justice system are more likely to have diverse physical and mental health conditions such as mental disorders, learning disabilities and infectious diseases (CSC, 2015a; CSC, 2010). These individuals are likely to have experienced substantial adverse events (e.g., witnessing family violence) and abuse, and to have a lower than average socioeconomic status (Kouyoumdjian, Schuler, Matheson, & Hwang, 2016), which varies based on diversity (e.g., Indigenous offenders).

Understanding how PSU plays a role in the success of an individual is key to improving the reintegration of those involved in the criminal justice system. PSU is a recognized criminogenic risk factor, meaning someone with a history of PSU is more likely to recidivate or commit future crimes (Harrison & Gfroerer, 1992). Addressing PSU and other risk factors can lead to a reduction in criminality, successful reintegration and a cost savings for corrections (Wooditch, Tang, & Taxman, 2014; Visher & Mallik-Kane, 2007; CSC, 2009).

The primary goal of this environmental scan was to summarize evaluations of criminal justice interventions that aimed to reduce substance use and related behaviours, or recidivism or both. More specifically, the purpose of this environmental scan is:

- To identify and summarize best practices in assessing and addressing PSU among those involved in the criminal justice system, with a focus on supporting the transition from the institution to the community; and
- To develop a comprehensive picture of specialized initiatives or programs that have already been implemented in Canada.

The intended audience for the scan includes researchers in the field of criminology or substance use, practitioners involved in the criminal justice system or the treatment of PSU, and federal, provincial and territorial policy and decision makers responsible for health, justice or corrections.

Method

The method for this project was designed to capture current research, evidence, professional expertise and practice to ensure that the results reflect the range of knowledge available and are grounded in the Canadian context. To guide the project, CCSA created a working group of those working in federal and provincial corrections, research and community-level programming. CCSA also conducted 11 key informant interviews to capture the practitioner perspective.

The environmental scan included a search of both the peer-reviewed and grey literatures related to the topic. The scan collected research about managing offenders within the criminal justice system or improving program facilitation, structure and processing of offenders. The scope of the scan ranged from enforcement to incarceration to community-based services, but included only programs that addressed substance use in some capacity. Approximately 1,500 peer-reviewed articles were identified

for inclusion in the scan, approximately 500 of which were deemed relevant for review by the researcher. Similarly, approximately 45 tools or resources were identified in the grey literature.

Findings

Key Informant Interviews

Key informants included representatives from the National Associations Active in Criminal Justice, from court, parole and legal services, from research and from community program providers. The key informants expressed the following common themes:

- PSU is not a criminal behaviour, but a health and public health issue;
- Effective services should address other issues in tandem with PSU (e.g., mental health, past trauma) and tailor services to the individual;
- Increasing accessibility to important services by reducing barriers to treatment participation should be prioritized;
- Education for both practitioners and the public is needed to eliminate stigma around PSU; and
- Communication and collaboration among criminal justice and treatment practitioners should be increased.

This feedback helped to provide context for the findings from the environmental scan.

Environmental Scan

The results of the environmental scan summarize best and promising practices for successful reintegration into the community of those with a history of PSU. The results are divided into three sections: programming considerations, system components (i.e., core pieces of the criminal justice system) and treatment approaches.

Programming Considerations

When planning to implement a correctional program or treatment approach it is important to take into consideration the target population. Most criminal justice research to date has been conducted primarily using Caucasian males. More recently, this focus has begun to change as it has become apparent that such programs might not be effective with other populations. With this in mind, it is important to ensure that evidence-informed practices are implemented with consideration of the unique circumstances of the individual (e.g., gender, culture, history, etc.).

Overall, there is a lack of evaluation of programming that addresses substance use among targeted criminal justice populations in Canada. Circumstances unique to females and Indigenous populations might be barriers to successful reintegration into the community (e.g., fear of stigma, social disadvantage). Research shows tailored programming that takes into consideration gender, culture and history of trauma is more effective than programs that do not. To enable tailored programming, risk assessments should include questions about individual history of trauma. Such assessment ensures trauma is acknowledged in treatment and release planning. Gender differences should also be accounted for by recognizing that the different circumstances females face in contrast with males might contribute to female PSU and criminality. Past abuse and victimization, child apprehensions, and issues of powerlessness and self-worth, for example, could be barriers to successful reintegration for females. To address these barriers, supports for unique needs should be included when managing

such cases (e.g., adequate child-care services and supportive housing). Finally, intervention options should reflect the culture of participants and consider histories of trauma and power relationships. Staff should be trained in cultural competencies and cultural practices.

System Components

The scan identified components of the criminal justice system that are key to effective management and reintegration. These components are risk assessment, case management and release planning, diversion programs, probation and parole, and transition and post-release reintegration.

Research shows that risk/needs assessment should be an ongoing task, used immediately and repeatedly to identify and track PSU as a criminogenic risk factor. Assessment should be used in tandem with other measures to develop a well-informed treatment or release plan, including treatment for PSU. Assessment is an important component of case management, which aims to provide an individual with the resources necessary to address PSU. Case management should include release planning and supervision to ensure the many risks of re-entry to the community following incarceration (e.g., overdose, reuniting with drug promoting social circles) do not jeopardize the success of the individual. Working with a case management team can help ensure that the diverse needs of the individual are addressed by correspondingly diverse programs or practitioners. Probation and parole should also include assessment and case management as they provide opportunities to set the individual up for success in the community context.

The scan also found several ways of diverting individuals away from more punitive approaches towards rehabilitation. These included screening, brief intervention and referral (SBIR) at the time of arrest, pre-adjudication diversion, treatment in lieu of incarceration and drug treatment courts. SBIR was a promising option as research supports the view that the arrest and detention period provides an optimal opportunity to intervene with a low-risk individual early on in his or her experience of the correctional system. SBIR provides the individual an opportunity to reflect on his or her PSU. Pre-adjudication diversion was found to significantly reduce the burden on the court system, provide access to treatment for participants and reduce severity of sentencing. However, considerable resources are needed to ensure the success of pre-adjudication diversion programs through accurate assessment of risk to the community, accessibility of evidence-based interventions and supervision of program participants. Finally, results showed that drug courts can reduce recidivism and substance use for those who complete the program.[1] These resource-intensive programs often screen out high-risk offenders, which means other options must be made available.

Finally, evidence found transition from the correctional system into the community to be a pivotal intervention period for this population. Access to needed services as well as the development of a positive support network should be prioritized during reintegration. To ensure the individual's progress is maintained, aftercare provided to him or her must be informed by the care provided in the institution. For reintegration to be successful, services must be integrated and accessible, as well as flexible to meet diverse needs of the participant. Those working in the correctional system should maintain open communication with those working in the community so they can keep up to date on what services are available and communicate information about incoming offenders.

Treatment Approaches

A number of approaches to treatment were highlighted throughout the empirical literature for individuals involved in the criminal justice system. These approaches are listed below. They should be used in

1 The reduction is in comparison with those who did not participate in the drug court program or who dropped out of it.

combination and provided through the continuum of care. Each of these methods can be used throughout the system, including during brief intervention, diversion, incarceration, probation and parole, and reintegration.

- **Withdrawal management** refers to the initial supervised, controlled period of withdrawing an individual from substances of abuse. For this to be done safely, appropriate supervision from a healthcare practitioner (e.g., nurse), withdrawal management planning and rest, and fluids and nutrition are needed.
- **Cognitive-behavioural therapy** (CBT) is well supported in the literature. CBT is a form of psychotherapy that alters negative thought patterns and corresponding actions. CBT targets underlying issues that might have developed based on previous experiences or environments. CBT teaches the individual productive behavioural skills that help them to self-regulate thereby reducing criminogenic risk.
- **Motivational interviewing** is a non-judgmental, non-confrontational approach designed to enhance intrinsic motivation to change behaviour by exploring and resolving ambivalence about change. Motivational interviewing can improve an individual's health through discussion that motivates him or her to set goals for positive behaviour change, such as decreasing substance use. It has been shown to enhance the individual's participation and retention in treatment programs during and after custody.
- **Contingency management** is a therapeutic intervention where rewards and punishments are used to instill behaviour change in an individual. Contingency management can be considered for use with participants in drug courts who are less acclimatized to criminal justice penalties and for those who voluntarily partake in outpatient treatment.
- **Peer-based interventions** are those in which former offenders who have integrated back into the community provide support to individuals in a similar position. Research suggests the reintegration process should incorporate not only institutional relationships, but also sponsors, mentors and volunteers inside and outside the correctional facility. Peer-to-peer programming should be included as an additional support for those involved in the criminal justice system.
- **Therapeutic communities** provide settings free of substances where individuals experiencing issues with substance use live together. These structured environments facilitate healing, support recovery and prepare individuals for reintegration after release from incarceration. Evidence for the effectiveness of this intervention is mixed.
- **Pharmacotherapy** is the use of medication to treat alcohol or other drug dependence with the goal to detoxify an individual, prevent potential relapse or provide opioid substitution. Pharmacotherapies have been found to reduce or lessen the severity of withdrawal symptoms. Some therapies are low risk in terms of overdose and developing PSU (e.g., buprenorphine/naloxone), while others carry significant potential for overdose (e.g., methadone, slow-release oral morphine and diacetyl morphine).

Discussion

The environmental scan sought to review and summarize key evidence for the successful reintegration of individuals involved in the criminal justice system back into the community by addressing their PSU. Much research exists about approaches to addressing PSU and the successful reintegration of those involved in the criminal justice system. This comprehensive evidence summary makes it clear

that there are key areas for improvement to be explored. There are also considerations that warrant attention for effective treatment and programming for this population.

Those involved in the criminal justice system often face diverse challenges that need to be identified and addressed to ensure their successful reintegration. Programming should be tailored to account for an individual's culture and gender, as well as any history of trauma. It is important that programs are designed to be flexible to meet these needs. A "one size fits all" approach will not be effective for all individuals involved in the criminal justice system. To ensure these needs are taken into consideration, risk/needs assessments should be conducted as early in the justice process as possible and at various stages throughout the process. Using the results, appropriate supports should be provided to the individual through ongoing case management and release planning.

Continuity of care is frequently a gap in addressing PSU in the criminal justice system. Evidence supports the need to provide services and treatment while an individual is incarcerated, and these should continue after release. Providing coordinated or integrated post-release services can increase the individual's ability to access needed supports. Those working in the correctional system should maintain open communication with those working in the community.

The scan provided several options for diverting non-violent offenders. These alternative options to incarceration can be considered as early on as the arrest period. If diversionary programs are being considered for implementation, it is necessary to ensure community services can handle an influx of referrals, as this capacity is often lacking in the community. Similarly, there are several options for evidence-informed treatment approaches for this population. These options include provision of withdrawal management services, pharmacotherapies and peer support programs, and psycho-social interventions such as CBT and motivational interviewing. These approaches should be used in tandem to ensure optimal success.

It is possible that not all relevant evidence and programs were captured by this scan. Some sources might not have been publicly available. Findings from this scan are based mostly on research that was undertaken in non-Canadian jurisdictions, indicating that applications in the Canadian context should be closely evaluated. Finally, some of the evaluations included in this scan had short follow-up periods meaning it is difficult to state definitively if behaviour change due to program participation was permanent.

Conclusion

Although great gains have been made in better understanding PSU among those involved in the criminal justice system, this progress has not resulted in the widespread implementation of evidence-informed practice to support successful reintegration. It is apparent that PSU is not consistently addressed throughout the system or by community service providers, which makes it a barrier to reintegration and a persisting factor in recidivism. This results in issues beyond relapse, including difficulties acquiring employment or housing, as well as family dysfunction and interpersonal conflict. Much research is still needed to further improve the reintegration of those involved in the criminal justice system. It is hoped that the results of this scan, by pointing to evidence-informed practices, will help guide jurisdictions in building service capacity, and in implementing programming that effectively addresses PSU. These results can help inform government policy in terms of funding allocations and future research.

Introduction

Problematic substance use (PSU)[2] plays an important role in the success of those involved with the criminal justice system. PSU can contribute to criminal behaviours, hinder progress within the justice system and create difficulties for those reintegrating into the community. This fact is concerning as approximately 75% of individuals arrive at Canadian federal institutions with a serious substance abuse problem (CSC, 2010). PSU is often higher among incarcerated females, especially those who are Indigenous. A study conducted by the Correctional Service of Canada (CSC) found that 94% of female Indigenous offenders had an identified substance use issue, compared to 71% of non-Indigenous female offenders (2014). The over-representation of Indigenous offenders among those with a substance use issue is also the case among males: a study of screening information for male federal offenders found that "86% of Indigenous offenders had an identified substance use need compared to 68% of non-Indigenous offenders" (CSC, 2012). Amplifying this problem is the fact that Indigenous people are already over-represented in the correctional population. Indigenous offenders make up about 20% of the federal institutional population compared to only about 3% of the Canadian adult population (CSC, 2010).

Those involved in the criminal justice system are more likely to have physical and mental health issues beyond PSU. For instance, one study found that over 70% of federal male offenders met criteria for at least one mental disorder, whereas the national rate for a current diagnosis for a major mental illness was only 12.4% (CSC, 2015a). Research on male offenders has found that they present with learning disabilities, low-functioning capacities and high rates of infectious disease (e.g., HIV, hepatitis C) (CSC, 2010). Offenders are likely to have experienced substantial adverse events (e.g., witnessing family violence) and physical, sexual or emotional abuse during childhood. Similarly, socioeconomic status among this population is lower than average, so they are more likely to have lower standard housing, employment rates, income and educational attainment (Kouyoumdjian, Kiefer, Wobeser, Gonzalez, & Hwang, 2016). Finally, CSC reported that federal offenders were more likely to experience social determinants associated with poorer health outcomes such as use of social assistance and poverty (2015b).

In the context of improving the reintegration of those involved with the criminal justice system, understanding how PSU plays a role in the success of an individual is key. PSU is a recognized criminogenic risk factor, meaning someone with a history of PSU is more likely to recidivate[3] or commit future crimes (Harrison & Gfroerer, 1992). Because of this fact, PSU is often included in general risk assessments, alongside antisocial cognition, antisocial associates, family and marital relations, employment, and leisure and recreational activities (Andrews & Bonta, 1995; Chenane, Brennan, Steiner, & Ellison, 2015).

PSU can play a role in the type of crime committed and the reason a crime is committed. For instance, CSC (2011) found that a greater proportion of offenders under the influence of drugs committed an acquisitive crime (82%), that is a crime to acquire possessions or resources

2 For the purposes of this report, PSU refers to the use of alcohol and other drugs that can have negative consequences and impacts across a broad range of health, mental health, social, interpersonal, employment, educational and financial areas. In the present context, PSU also refers to substance use that is related to criminal behaviour and that can be a barrier to successful reintegration. PSU manifests on a continuum from low frequency use to chronic, heavy use. It also varies according to personal characteristics such as age and gender, the type of drug consumed, as well as the complexity of the health and social context; for example if accompanied by concurrent mental health conditions, poverty or violence.

3 Recidivism "refers to a person's relapse into criminal behavior, often after the person receives sanctions or undergoes intervention for a previous crime. Recidivism is measured by criminal acts that resulted in re-arrest, reconviction or return to prison with or without a new sentence" (National Institute of Justice, 2014).

(e.g., theft), more often than a violent crime (e.g., assault) (31%). An individual might be more likely to commit a crime while under the influence of a substance due, for example, to lowered inhibitions or increased confidence. Crimes might be committed to acquire a substance or finance PSU. The same study found that approximately one-third of those who were under the influence of drugs on the day of their offence committed the offence to support their substance use (CSC, 2011).

These findings illustrate the need to ensure PSU is addressed among those involved in the criminal justice system. Addressing PSU, along with other risk factors, can lead to a reduction in criminality, successful reintegration and a cost savings for corrections (Wooditch et al., 2014; Visher & Mallik-Kane, 2007; CSC, 2009). PSU not only affects the individual, but also their family and community. Investment in addressing PSU has benefits that extend beyond recidivism, such as supporting public safety, improving communities and investing in future generations.

The Issue

To help ensure successful reintegration for this population, some challenges need be addressed. To begin, those dealing with PSU and who are involved in the criminal justice system often face stigma, not only for their substance use, but also for the problems that co-occur with it and for their criminal backgrounds. This stigma can be imposed by the general public, healthcare practitioners, service providers, correctional staff and others working in the criminal justice system. Stigma influences social action and public policy, and the corresponding provision of health care (Livingston, Milne, Fang, & Amari, 2012), potentially resulting in the further exclusion of those being stigmatized.

Research shows PSU is more highly stigmatized than any other health condition (Schomerus et al., 2011; Ronzani, Higgins-Biddle, & Furtado, 2009), often because it is not viewed as a health condition, but rather as a behaviour that can be controlled (Livingston, et al., 2012). Due to this perception, those with PSU are often held responsible for their behaviour. Similarly, criminality is highly stigmatized, resulting in restrictions to the offender, such as the inability to vote, acquire housing, financial aid or employment, all important components to community integration (Pogorzelski, Nancy, Ko-Yu, & Blitz, 2005). An offender's anticipation of stigma prior to release can result in poorer community adjustment (Moore, Stuewig, & Tangney, 2016). Evidence also shows stigma towards PSU can delay recovery and reintegration (Brewer, 2006; van Olphen, Eliason, Freudenberg, & Barnes, 2009), and decrease access to and quality of health care and treatment (Copeland, 1997; Digiusto & Treloar, 2007; Semple, Grant, & Patterson, 2005). Hence, stigma is an important consideration when looking to improve the reintegration of those with PSU, especially in terms of providing them access to needed services and ensuring they feel connected to the community.

Continuity of care poses a second challenge to reintegration. Continuity of care is the continuation of treatment and services from intake through to release into the community. For example, if an individual is receiving pharmacotherapies before admission to a correctional facility, he or she should continue this treatment while incarcerated and once they are back in the community (McKenzie et al., 2012, Coviello et al., 2012). Incarcerated populations are significantly less likely to receive regular health care before incarceration or after their release (Visher & Mallik-Kane, 2007). Furthermore, programming within a facility is often not consistently accessible in a timely manner, for example, due to cancellations or restrictions in movement for security reasons (Morin, 1999). The cyclical movement of staff and offenders entering and exiting an institution also impacts continuity of health care and programming (Visher & Mallik-Kane, 2007; Morin, 1999).

Finally, the diverse needs of those involved in the criminal justice system further complicates addressing PSU and improving reintegration. This population can present with health concerns such as mental illness, intellectual disabilities and chronic disease. Similarly, gender, culture and personal history (e.g., trauma) must be taken into consideration when referring individuals to programming. For

instance, females need tailored programming as they are more likely to experience employment problems, lower income, depression and anxiety compared to men (Peters, Strozier, Murrin, & Kearns, 1997). Some time ago, Indigenous females reported that the Canadian justice system does not service their unique needs, including trauma from past sexual abuse, symptoms of fetal alcohol spectrum disorder (FASD) and suicidal risk. They also identified the need for targeted cultural programming such as healing ceremonies and support from Elders (Morin, 1999). These gaps have been found to still exist within the justice system (Office of the Correctional Investigator [OCI], 2016).

Access and availability of these services varies by jurisdiction. Correctional programming can begin to address diverse needs, but it is only effective if care is continued within the community. Unfortunately, it is often the case that community services do not have the capacity to address these diverse issues. The lack of services might contribute to the growing Canadian remand population (Porter & Calverley, 2011).[4] For example, arrestees might present with PSU, but not necessarily pose a risk to public safety. However, without access to suitable programming or supervision in the community, they are detained in remand. It can be challenging to illustrate what services are needed in the criminal justice system and within the community without appropriate data. These data and their corresponding evaluation are often lacking due to time and resource constraints.

Project Background

Understanding the role that PSU plays in the criminal justice system and finding solutions to the barriers to reintegration can help to address the issues described above. To further our understanding, the Addressing Offenders' Problematic Substance Use project was initiated by the Canadian Centre on Substance Use and Addiction (CCSA) and developed through dialogue with federal, provincial and territorial heads of corrections, as well as representatives from the Research Branch of CSC. The objective of the project, funded by CSC, is to address the risk factors related to PSU by promoting evidence-informed practices that help successful reintegration into the community.

Objectives

The primary goal of this environmental scan was to summarize evaluations of criminal justice interventions that aimed to reduce behaviour related to substance use or recidivism or both. More specifically, the purpose of this environmental scan is:

- To identify and summarize best practices in assessing and addressing PSU among those involved in the criminal justice system, with a focus on supporting the transition from the institution to the community; and
- To develop a comprehensive picture of specialized initiatives or programs that have already been implemented in Canada.

The intended audience for the scan includes researchers in the field of criminology or substance use, practitioners involved in the criminal justice system or the treatment of PSU, and federal, provincial and territorial policy and decision makers responsible for health, justice or corrections.

4 "Remand is the temporary detention of a person while awaiting trial, sentencing or the commencement of a custodial disposition" (Porter & Calverley, 2011, p. 6).

Method

The method for this project was designed to capture research, evidence, professional expertise and practice relevant to the project's objectives and to ensure that the results reflect the range of knowledge available and are grounded in the Canadian context. This goal was achieved through three components: working group consultations, key informant interviews and an environmental scan.

Addressing Offenders' Problematic Substance Use Working Group

To guide the project, CCSA created a working group of representatives of those working in federal and provincial corrections, and in research, including Indigenous knowledge experts, those with lived experience, and those with subject-matter expertise in gender, trauma-informed care and co-occurring disorders, as well as representatives of program implementers and facilitators from federal and community-level programming. The Addressing Offenders' Problematic Substance Use (AOPSU) Working Group is co-chaired by CCSA, CSC and provincial representatives from the heads of corrections (see Appendix A for full list of AOPSU Working Group members).

Key Informant Interviews

To capture the practitioner perspective and develop a richer understanding of the context of program implementation, CCSA conducted key informant interviews with various criminal justice professionals. The researcher developed an interview guide based on the gaps identified by the AOPSU Working Group. The Working Group then provided feedback on the discussion guide and made suggestions for key informants. CCSA interviewed 11 key informants in total, including representatives from the National Association Active in Criminal Justice, from court, parole and legal services, from the research community and from community program providers. Key informant question topics included:

- Availability of research and data;
- Challenges to program implementation and delivery;
- Program strengths;
- System gaps and areas needing improvement; and
- What is working.

After interviews were completed, results were analyzed by the researcher and reviewed by the Working Group to ensure consistency and validity.

Environmental Scan

The environmental scan searched peer-reviewed and grey literatures related to the topic. It collected research about managing offenders within the criminal justice system or improving program facilitation, structure and processing of offenders. The scope of the scan ranged from enforcement to incarceration to community-based services, but included only programs that addressed substance use in some capacity. Although other key areas of relevance to this issue are acknowledged (e.g., co-occurring disorders, importance of safe housing and healthy relationships), they are included only peripherally in the scan. Similarly, due to the size of the evidence-base and informed by consultation with the AOPSU Working Group, young offenders were not included in this study. Harm-reduction practices not directly targeting post-release reintegration (e.g., supervised injection sites) were also omitted.

For inclusion in the environmental scan, studies were reviewed according to the following criteria:

- Research or evaluation of adult offenders;
- Research or evaluation within the criminal justice system, including arrest, diversion (pre and post-trial), within institution, probation and parole, and community-based services;
- Research or evaluation internationally, but mainly applicable to a North American context;
- Research or evaluation that addressed substance use and the corresponding effect on relapse and recidivism; and
- Research or evaluation that promotes successful reintegration of offenders into the community.

An information specialist and researcher conducted three waves of searches. Initially, only programs targeting community reintegration after release (e.g., parole programming, pharmacotherapies) were retrieved. After Working Group consultation, another literature search was conducted with the addition of risk assessment tools and diversion programs. A final search was conducted to target key community services (e.g., wrap around services, correctional transition teams). Peer-reviewed articles were searched using PubMed and PsycINFO databases. Other sources included Cochrane Library, PsycNET, Campbell Library, Health Evidence, Centre for Reviews and Dissemination, National Criminal Justice Reference Service, Project Cork and Google Scholar. Search terms used (but not limited to) were variations of the following terms (see Appendix B for full list of search strategy and terms):

- First wave: pre-release, post-release, post-incarceration, transition, prisoner, offender, criminal, substance-related disorders/rehabilitation, re-entry, release, probation and parole
- Second wave: risk assessment, risk assessment tool/instrument, court-mandated, diversion program, treatment outcome, drug court, criminal rehabilitation, remand, detainee and custody
- Third wave: hub and spoke, wrap around, correctional institutions, recidivism, relapse, relapse prevention, cognitive therapy, cognitive behavioural therapy, drug abuse, drug addiction, withdrawal, detox, detoxification, motivational interviewing and transition team

A search of the grey literature was also conducted using Google, the Centre on Addiction and Mental Health's Google Custom, the National Registry of Evidence-based Programs and Practices, and Crimesolutions.gov. Search terms such as reentry, transition, reintegration, parole, aftercare and offender transition were used. The search produced examples of re-entry or community-based programming for substance use among those involved with the criminal justice system, such as risk assessment inventories. Finally, AOPSU Working Group members submitted relevant resources to the researcher.

Approximately 1,500 peer-reviewed articles were identified for inclusion in the scan, approximately 500 of which were deemed relevant for review by the researcher. Similarly, approximately 45 tools or resources were identified in the grey literature. The researcher categorized the peer-reviewed studies and grey literature based on the applicability to the inclusion criteria and discarded those deemed irrelevant. The remaining programs, studies and relevant research were organized according to three sections: system components, which includes the core pieces of the criminal justice system (e.g., risk assessment, case management and reintegration); treatment approaches, (i.e., evidence for treating individuals with PSU); and program considerations, which provides information on lenses that can be applied to such treatment (e.g., trauma-informed). Efforts were made to report all available information about the intervention, its evaluation results, the methodological limitations and implementation implications. Any information missing from an intervention was not available at the time of the scan.

Findings

Key Informant Interviews

Findings from the key informant interviews provided important context for implementing best practices and guided the research by revealing gaps that required further evidence. The following subsections summarize common themes expressed during these interviews along with AOPSU Working Group feedback on those themes.

Problematic Substance Use Is a Health Issue

It became clear through the interviews that PSU is generally handled in the criminal justice system as a behavioural issue rather than a health condition. All informants were adamant that PSU must be addressed as a health concern to ensure the individual receives appropriate treatment. Informants expressed the view that the first step is to better connect the criminal justice system with the health system. This connection would ensure criminal justice issues are recognized by health agencies and health issues are recognized by the criminal justice system. One important barrier to achieving this shift is the lack of knowledge about health conditions on the part of correctional and enforcement officers. Training would be required for those working within the criminal justice system to ensure they have the capacity to address diverse health issues. One informant emphasized the need to recognize that relapse is part of recovery and that penalizing individuals for relapse is not effective: "do not penalize them for the very thing they are seeking help for."

Abstention conditions were the most commonly cited example of PSU being mismanaged as a behavioural issue rather than a health concern. Administrative charges due to a breach in parole conditions requiring abstinence put an unnecessary strain on enforcement and remand centres when the offender might not pose a significant risk to public safety. Many practitioners felt that relapse should not be punished as a correctional violation, but instead managed with treatment or by addressing the root causes of PSU.

Addressing Other Issues in Tandem with PSU

Informants identified the challenge of working with a population that commonly presents with a range of health and social concerns, including mental health issues, past traumatic experiences, FASD and learning disabilities. Services need to be equipped to provide treatment that takes into consideration multiple issues other than PSU and that can be tailored to the individual. Unfortunately, practitioners felt most services lack flexibility and are often designed without these varying considerations in mind. This lack is largely a resource issue resulting in a lag in amending services based on current evidence. Some informants advocated for addressing the root causes of PSU (e.g., traumatic experience, difficulty finding employment) as a more effective approach.

Not only do the above-mentioned conditions need addressing, but new issues of concern are emerging for this population. Almost every key informant mentioned the impact of brain injury on behaviour and substance use among those involved in the criminal justice system. There is a growing body of research supporting the link between brain trauma and behavioural issues. Informants recommended that correctional officers and other practitioners dealing with this population be educated on brain injury and its effects. Such education will enable practitioners to better understand and deal with injury symptoms such as anti-social behaviour and difficulty with obeying orders.

Informants also identified lack of access to safe and supportive housing as a significant barrier to successful community reintegration and a factor contributing to re-incarceration. One informant reasoned that lack of housing could be due to those who are no longer in need of housing hesitating to leave supported housing, as they are aware of how challenging it can be to find housing if needed again. Finding partners willing to provide housing to individuals with a criminal history is also challenging. Some housing providers stipulate that those with a criminal record not be allowed to access their services.

Increasing Accessibility to Important Services

Informants listed a number of barriers to accessing treatment for those involved in the criminal justice system. These included:

- Travel required to access services;
- Long wait times for treatment;
- Fractured provision of care (e.g., medication provided during incarceration not provided after release, need to switch doctors or counsellors); and
- Limited availability of treatment, particularly for short periods of incarceration and for remand.

To address these barriers, informants suggested co-locating services in one area to ensure easy access (e.g., wrap around services), or having representatives from programs come into the institution to screen for relevant participants and engage offenders. Continuity of care can be ensured by beginning release planning during incarceration or allowing those who have graduated from a program to drop-in as alumni. Respondents suggested considering brief interventions for remand populations or those serving shorter sentences, and ensuring that treatment is continued once they are released into the community.

Informants also recommended employing those with lived experience and incorporating a peer mentorship or peer-to-peer component into programming. Practitioners saw peer-to-peer programs as an opportunity to foster belonging and trust among participants, while in turn making them accountable to the values of the program, which are key to recovery. Similarly, reintegrating individuals back into the community through these programs helps develop a sense of purpose for those who have been incarcerated and no longer have a foundation of social support. One challenge for this program type is getting peers with criminal histories cleared to come into correctional institutions. However, informants felt that access to incarcerated individuals is important to promote enrollment and continuity of care following release.

Employing those with lived experience is also seen as valuable to community programs. Such practitioners have insight into what participants are experiencing and can understand their needs during the vulnerable period of reintegration. Proponents of this approach felt that practitioners with lived experience can better connect with participants through their knowledge of relevant terminology and culture.

Education to Eliminate Stigma around PSU

A majority of the informants discussed the barrier that stigma can impose on those reintegrating back into the community. They said that stigma against both those involved with the criminal justice system and those with PSU existed among the public, criminal justice practitioners and even those in drug treatment. Stigmatization can be manifest through the restriction of access to needed services (e.g., housing services are refused to people with criminal histories or PSU).

Stigma is very apparent to offenders and prevents them from disclosing crucial information relevant to their recovery and reintegration. For example, they might not be forthcoming to treatment providers about their substance use issues for fear of judgment, meaning the level of services they are screened into might not be appropriate. Similarly, individuals might hide their PSU for fear it could jeopardize their chances of receiving parole. Service providers working with these clients might face similar challenges when they are unable to refer them to services they need.

To address this issue, informants suggested providing an environment that is safe, supportive and free of judgement. Providing such an environment would require more education for practitioners, as well as other key players in the criminal justice systems. For example, defence lawyers should be educated about effective approaches and available services. Informants reported that defence lawyers might advise clients not to partake in any treatment before sentencing as treatment implies guilt. Similarly, some lawyers might advise clients to take incarceration over drug court as it is "easier." Providing defence lawyers with education on PSU and appropriate services could better position them to recommend more effective pathways for their clients.

Informants also listed public perception as a major barrier to facilitating recovery. Oftentimes decisions are made within the court system or by enforcement that prioritize the appearance of maintaining public safety. For example, a judge might decide to incarcerate someone who does not pose a public risk, but who would benefit from participation in community services. Informants felt it could be important to educate the public that individuals released into the community who are able to access treatment often do not pose a serious public safety risk. Similarly, the public should be educated about the use of evidence-informed tools in the criminal justice system to assess risk. It was also noted that criminal justice practitioners might be overestimating the public's perception of danger and that it would be beneficial to poll the public to develop a more realistic understanding of the value it places on rehabilitation.

Increasing Communication and Collaboration among Practitioners

Finally, almost everyone consulted advocated for increasing opportunities to network and communicate for all of those in the health, social and criminal justice systems who have a role in managing this population. It was acknowledged that many agencies and departments work within silos and that improving connections among federal and provincial corrections would be particularly beneficial.

In particular, participants felt that larger government agencies might struggle to connect with community services (e.g., federal correctional institutions and reintegrative community programming). This divide could be due to barriers that exist in terms of data sharing, such as confidentiality restrictions for health records that prevent access to treatment history.

Informants also pointed out that judges, crown and defence counsel lack awareness of existing services in the community that can be incorporated into sentencing. They suggested that a list of services organized by region could be made available to ensure that relevant parties are aware of services in the community that would benefit individuals in the criminal justice system.

Environmental Scan

This section presents the results of the environmental scan of peer-reviewed and grey literatures for best and promising practices for successful reintegration of those with a history of PSU. The results are divided into three subsections: program considerations, which provides information on perspectives that can be applied to such treatment (e.g., trauma-informed); system components, which discusses the core pieces of the criminal justice system (e.g., risk assessment, case management and reintegration); and treatment approaches, which addresses evidence for treatments such as cognitive behavioural therapy.

Program Considerations

When planning to implement a correctional program or treatment approach the target population must be taken into consideration. Most criminal justice research has been conducted primarily using Caucasian males. This focus has begun to change recently as it has become clear that such programs might not be as effective with other populations. With this in mind, it is important to ensure that evidence-informed practices are implemented with consideration of the unique circumstances of the individual (e.g., gender, culture, experience).

The following subsections summarize considerations for perspectives to apply to criminal justice system components and treatment approaches. To begin, evidence for trauma-informed programming is presented as it is common for justice-involved individuals to have past traumas that might impact programming needs and affect successful reintegration. Next, gender considerations are presented, followed by cultural considerations. Although it is acknowledged that a majority of Canadian offenders are male and Caucasian, growing female and Indigenous populations require targeted programming (OCI, 2016).

Trauma-informed Programming

Trauma-informed care[5] ensures the consideration of traumatic history as a possible contributor to substance use and criminality. This approach involves understanding an individual's past and current experience of violence or abuse and integrates this understanding into all aspects of care (British Columbia Centre of Excellence for Women's Health, 2013). The main goal of such an approach is to prevent any further trauma for the individual while he or she navigates the criminal justice system and addresses his or her PSU. Through this journey, a person may be better able to understand why he or she uses substances (e.g., to medicate against painful memories) (Matheson, Brazil, Doherty, & Forrester, 2015).

A history of trauma can go beyond the individual and extend to a culture as a whole (Bombay, Matheson, & Anisman, 2009). Collective experience can filter through generations as, for example, with the trauma of residential schools experienced by Indigenous peoples and their families (Abramowitz, 2005). Collective trauma can result in negative community trends such as erosion of trust and poor leadership (Bombay et al., 2009). A trauma-informed approach aligns with values-based Indigenous care (Poole, 2015). Unfortunately, there is a lack of trauma screening and treatment in the Canadian correctional system (Matheson et al., 2015) and we currently lack data on the prevalence of trauma in our correctional population. This gap is concerning as untreated trauma can prevent successful reintegration (Doherty, Forrester, Brazil, & Matheson, 2014).

5 A trauma-informed approach recognizes the importance of trauma in relation to PSU and can be applied in any treatment type. This is distinct from trauma-specific interventions that are designed specifically to address the consequences of trauma and to facilitate healing (see www.samhsa.gov/nctic/trauma-interventions for more).

Summary of Research

Criminal behaviour, substance use and trauma are interrelated. Research shows that PSU is associated with exposure to trauma (Triffleman, Marmar, Delucchi, & Ronfedt, 1995) and that trauma is a strong predictor of criminal involvement and substance use (Messina & Grella, 2006). Not surprisingly, offenders who used substances problematically were found to be more likely to have experienced childhood trauma than offenders who did not have substance use issues (Cuomo, Sarchiapone, Giannantonio, Mancini, & Roy, 2008). This correlation is especially the case for females: evidence shows that 32% to 66% of females in the general population with a substance use disorder have histories of childhood assault (physical and sexual).[6] Females have also reported that they self-medicate to cope with past experiences of trauma (Covington, 2007; Greene, Haney, & Hurtado, 2000; Grella, Stein, & Greenwell, 2005; Doherty et al., 2014).

Those in charge of correctional programs or treatment approaches should have knowledge of the trauma history of those in their care as the experience of incarceration can trigger past trauma or lead to new experiences of trauma associated with, for example, the authoritarian and restrictive environment. Renewed or new traumatic experience can increase substance use (Wiewel & Mosley, 2006; van Olphen et al., 2009). Similarly, those with trauma histories can also struggle with developing trusting relationships with healthcare practitioners, as well as remaining engaged in treatment (Harris & Fallot, 2001).

Substance use programs can be more effective for individuals who have experienced trauma if the programs are applied using a trauma-informed approach. Trauma-informed treatment programs result in better substance use and abstinence outcomes and can reduce re-incarceration rates compared to treatment that is not trauma-informed (Amaro et al., 2007; Covington, Burke, Keaton, & Norcott, 2008; Messina, Grella, Carier, & Torres, 2010).

The following considerations should be kept in mind when implementing trauma-informed treatment:

- Incarceration itself can be traumatizing (Kubiak, 2004).
- Re-traumatization or trauma can occur from feelings of powerlessness and loss of control.
- Allowing the individual to identify their priorities and make decisions about their treatment will be empowering.
- Confrontational approaches should be avoided (Poole, 2015).
- Past experiences of trauma and abuse should be incorporated into the risk–need–responsivity model as an additional risk factor for criminality and PSU (Matheson et al., 2015), and screened for at the outset of an individual's involvement in the criminal justice system.
- Release planning should accommodate the impact of trauma as reintegration can trigger painful responses. The discharge planner and the offender should work to implement appropriate coping strategies (Doherty et al., 2014).
    - The offender should also be involved in release planning so that they have an idea of what to expect and feel confident with their reintegration plan (Doherty et al., 2014).
- An organization's approach might need to shift to facilitate the integration of trauma-informed services that meet the needs of this population (e.g., positioning trauma in the risk–need–responsivity model) (Matheson et al., 2015).

6 Males with PSU have lower rates of trauma than females (Johnson, Heffner, Blom, & Anthenelli, 2010).

Gender-informed Programming

Females in the criminal justice system have different needs than males, meaning that programs designed for a male population cannot be applied universally (Green, Miranda, Daroowalla, & Siddique, 2005). For instance, four in five Canadian federally sentenced offenders who are females[7] have substance use problems, which is higher than that among males. Female offenders are also more likely to be found guilty of a disciplinary offence, to be placed in segregation and to be returned to custody after their release (Farrell-MacDonald, Gobeil, Biro, Richie, & Curno, 2015). They are significantly more likely than males to have a co-occurring mental disorder and a physical health problem (e.g., diabetes), and to have been victims of domestic violence, and physical and sexual abuse (Staton, Leukefeld, & Webster, 2003; Messina, Burdon, Hagopian, & Prendergast, 2006; National Institute on Drug Abuse [NIDA], 2014; James & Glaze, 2006; Browne, Miller, & Maguin, 1999; Langan & Pelissier, 2001). Tailored programming that addresses gender-specific needs and circumstances will be more effective in treating females (Wiewel & Mosley, 2006; Matheson et al., 2015). The following issues are among those unique to females (Grella & Greenwell, 2007):

- Females have needs related to reproductive health and to unplanned pregnancies, and might use birth control inconsistently or not at all (Clarke et al., 2006). Due to fear of intimidation or exposure, females involved in the criminal justice system are less likely to access healthcare services to address these issues (Staton, Leukefeld, & Logan, 2001), which can in turn reduce the likelihood they receive treatment for PSU.
- A large proportion of females involved in the criminal justice system are mothers, which means they have very specific needs that are often not accommodated by the system. For example, post-release services such as housing and treatment programs might not accommodate childcare responsibilities (van Olphen et al., 2009). Treatment of PSU can be more challenging if childcare services are not available.
- These contextual factors create barriers to employment for reintegrating females (e.g., lack of logistical support such as transportation and child care) (Guttman, McKay, Ketterlinus, & McLellan, 2003; Richie, 2001), which is concerning as unemployment is a risk factor for PSU (Mossakowski, 2008).
- A lack of gender-specific services can contribute to the initial incarceration of females and has been found to relate to unsuccessful treatment completion and relapse upon return to the community (e.g., returning to unhealthy relationship) (Freudenberg, Daniels, Crum, Perkins, & Richie, 2005; Richie, Freudenberg, & Page, 2001; van Olphen et al., 2009).

Summary of Research

The issues described above result in the female correctional population having a greater overall level of service needs without corresponding services, making it less likely for them to receive the care they need to achieve positive outcomes (Grella & Greenwell, 2007). Some considerations for program development can mitigate this gap in care for females. It is important to recognize that past experiences of abuse and victimization might have made the individual feel powerless. This feeling can result in low self-worth and guilt about their substance use, making it challenging to engage in recovery. Relationships, both negative and positive, are also important contributors to the health of the female offender. Relationships with friends and family should be taken into account in rehabilitation, whether it is to strengthen positive relationships or sever negative ones (Wiewel & Mosley, 2006).

7 Female offenders comprise approximately 5% of the total population of Canadian federal offenders (CSC, 2014b).

Some programs have been designed with female needs in mind. For instance, an in-reach intervention for incarcerated females used the brief intervention format to provide participants with gender-based community resources. These resources included treatment information, supportive services and housing. This intervention resulted in decreased alcohol and substance use. Study authors did note certain challenges for female participants, including the competing demands upon release of basic needs preventing them from participating in treatment. These demands included finding a job, repairing relationships and housing (Begun, Rose, & Lebel, 2011).

Culture-informed Programming

Targeted programming should take into consideration cultural background (e.g., African, Asian, Latino) as a factor in program effectiveness. In Canada, Indigenous peoples make up over one quarter of the federal correctional population. A combination of remaining non-Caucasian ethnicities make up less than 20% (OCI, 2016). After speaking with key informants and reviewing the evidence summarized below, it was apparent that not all practices for addressing PSU are tailored to Indigenous populations. For instance, not all risk assessments have been proven effective with this population. Furthermore, not all services are available on reserve, such as pharmacotherapies, making continuity of care challenging. The purpose of this subsection is to explore the incorporation of culturally appropriate programming into correctional services for Indigenous people.

The Office of the Correctional Investigator (OCI) reports that between 2010 and 2011 the federal incarceration rate for Indigenous adults was approximately 10 times that of non-Indigenous adults (OCI, 2013a). This higher rate is especially the case for female Indigenous offenders who represent 35% of federally sentenced women in Canada (OCI, 2016). Over-representation is also apparent at the provincial level. Data from 2011 and 2012 show that 41% of the average daily population in Alberta's adult provincial correctional centres was Indigenous, compared to only 6% of the general provincial population (Alberta Health Services, 2012).

Indigenous peoples often present with diverse risks and needs, including histories of substance use, mental illness, violence and trauma (CSC, 2008). This fact is concerning as Indigenous people who are dealing with severe PSU are over twice as likely to recidivate compared to those who are not (Brzozowski, Taylor-Butts, & Johnson, 2006). When asked about community challenges, individuals in participating First Nations communities identified "alcohol and drug abuse" as the primary barrier to on-reserve community wellness (First Nations Information Governance Centre, 2011). Other factors that put Indigenous peoples at risk for incarceration are economic and social disadvantage due to systemic discrimination and prejudice, lack of access to education, remoteness and issues of separation between parents and children (OCI, 2013a; National Native Addictions Partnership Foundation [NNAPF], Assembly of First Nations [AFN], & Health Canada, 2011; Benson, 2016).

The *Corrections and Conditional Release Act*, enacted in 1992, contains components that aim to enhance Indigenous community involvement in corrections and address over-representation of Indigenous people in federal corrections. Section 81 allows for the transfer of care, custody and supervision of an Indigenous offender back into his or her community instead of a CSC facility. Based on this provision, healing lodges have emerged as a culturally informed treatment approach for the Indigenous population.[8] Under the *Criminal Code* of Canada, the sentencing principle known as Gladue enforces the acknowledgement by judges of the racism and discrimination faced by Indigenous peoples (e.g., residential school system) (OCI, 2013b). These provisions are generally

8 Healing Lodges are correctional institutions that use Indigenous values and beliefs where offenders can serve their sentence. For more information see www.csc-scc.gc.ca/aboriginal/002003-2000-eng.shtml.

underused. For instance, Gladue is used for only 8% of relevant cases (Auditor General of Canada, 2016; Benson, 2016).

Summary of Research

Evaluation data is lacking for programs targeting substance use among Indigenous people involved with the criminal justice system. There are significant methodological challenges in evaluating these programs, including variation in both context and programs, which limits comparison across sites, and the use of multi-modal approaches, which confound the ability to attribute effect. Rowan et al. (2014) conducted a scoping review of culture-based programs in North America for Indigenous people that address substance use and wellness. They concluded that evidence of effective interventions might expand beyond academic literature due to the fact that "not all of the relevant evidence may be found through such sources, as much of the knowledge about culture is still held in Indigenous worldviews, languages and rituals" (Henderson, 1995, p.22). This fact supports the need to bring together Indigenous and Western knowledge to address this population (Bartlett, Marshall, & Marshall, 2012).

Results of the review showed that culture-based interventions had a positive effect on substance use problems for Indigenous peoples (Rowan et al., 2014). The most common cultural intervention was sweat lodge ceremonies. Other examples included Elder involvement, feasting, traditional teachings, and singing and drumming. Only 37% of the articles measured spiritual health, which is concerning as this is how Indigenous culture conceptualizes the healing of PSU.

Comprehensive frameworks and evidence reviews have been undertaken in Canada to provide recommendations for addressing PSU among Indigenous people (e.g., *Honouring our Strengths: Renewal Framework* and Rowan et al., 2014). Similarly, many of the recommendations below were highlighted in the *Truth and Reconciliation Commission of Canada: Calls to Action*.[9] Considerations for providing evidence-informed treatment to this population include:

- Adapt treatment practices to incorporate Indigenous culture (Livingston, 2009). Indigenous culture sees PSU as stemming from illness of the spirit. Treatment should also aim to restore Indigenous culture and identity through reconnecting with nature, family, community and ancestors (Brazil, 2009). Services should be holistic and take into consideration many factors related to well-being, such as physical, spiritual, mental, cultural and emotional health (NNAPF, AFN, & Health Canada, 2011).
- Treatment should reflect the specific Indigenous tribes that reside in an area (e.g., Blackfoot, Cree). Programs should be implemented in areas with a high population of Indigenous people so that they can stay close to their community and families (Alberta Health Services, 2012).
- Trauma experienced by the Indigenous population as a whole and abuse suffered by individuals in childhood and adulthood should be recognized in treatment (Coyhis & White, 2006; NNAPF, AFN, & Health Canada, 2011).
- Those working with Indigenous offenders should be trained in Indigenous cultural practices (e.g., ceremonies) and cultural humility. Providers should have a clear understanding of the culture and its etiquette, the issues faced by this population and its self-identify as Indigenous (Alberta Health Services, 2012; Lane, 2015; NNAPF, AFN, & Health Canada, 2011). It might be important to consider recruiting Indigenous staff differently than traditional correctional staff (e.g., online applications might be too invasive) (AOPSU Working Group meeting).

9 See Truth and Reconciliation Commission of Canada: Calls to Action for more information.

- PSU treatment should also be provided in a culturally safe manner, which means consideration of the cultural and structural differences and power relationships that might exist due to the history of First Nations people (NNAPF, AFN, & Health Canada, 2011).

Finally, to ensure that these services are effectively treating PSU it is important that program evaluation is based in culturally relevant indicators. Traditional indicators of effectiveness might not be appropriate to the Indigenous population who conceptualize well-being as a healthy spirit and connection to self and community. There is a lack of data based on spiritual health or wellness outcomes due to the challenges of defining and measuring spiritual wellness (Rowan et al., 2014).

To address this gap, an Indigenous knowledge-based assessment instrument was developed: the Native Wellness Assessment™.[10] This assessment collects information that can be used to evaluate the effectiveness of services, including those related to PSU, based in Indigenous culture (e.g., learning from traditional healers, participating in storytelling and dancing). This instrument has demonstrated that First Nation culture as a health intervention can address substance use (Thunderbird Partnership Foundation, 2016).

Conclusion

Overall, there is a lack of evaluation of programming addressing substance use among targeted criminal justice populations in Canada. Circumstances unique to females and Indigenous populations can be barriers to successful reintegration into the community (e.g., fear of stigma, social disadvantage). Encouragingly, research shows tailored programming that takes into consideration gender, culture and history of trauma is more effective than programs that do not.

Key Considerations

Based on the above literature, the following considerations should be taken into account for tailored programming.

Trauma-informed programming:

- Ensure assessments capture past trauma as this relates to PSU;
- Ensure trauma is acknowledged in treatment and release planning; and
- Recognize incarceration might trigger past trauma.

Gender-informed programming:

- Recognize that females face different circumstances than males, which might contribute to PSU and criminality;
- Be aware of possible barriers to rehabilitation, such as past abuse and victimization, child apprehensions, and issues of powerlessness and self-worth;
- Consider incorporating healthy relationships into rehabilitation, as these play an important role in female success; and
- Ensure the unique needs of females are met (e.g., adequate child-care services, health care and supportive housing), as these relate to substance use outcome.

10 The Native Wellness Assessment is available at nnapf.com/about-tpf/scope-of-work/native-wellness-assessment/.

Culture-informed programming:

- Ensure intervention options reflect the culture of participants and consider histories of trauma and power relationships;
- Ensure staff are trained in cultural competencies and cultural practices; and
- Conduct ore evaluations to identify, demonstrate impact of and strengthen use of best practices in effective programming for these populations. Spiritual health should be included as an indicator.

System Components

This section provides a summary of the research related to key components within the criminal justice system that are important to effective management and reintegration. These components are risk/needs assessment, case management and release planning, diversion programs, probation and parole, and transition and post-release community reintegration. The PSU programming and interventions summarized below might not be tailored for or available to the Indigenous population.

Risk/Needs Assessment

Substance use correlates with criminal behaviour (Harrison & Gfroerer, 1992), and is therefore an important consideration when evaluating the risk of future anti-social behaviour. Risk/needs assessment tools predict an individual's likelihood of offending based on an assessment of known risk factors. In other words, risk/needs assessments "classify" the individual based on odds for recidivism or other undesirable behaviour (e.g., violence, substance use, etc.) (Labreque, Smith, Lovings, & Latessa, 2014) and identify needs for services or treatment. Evidence-informed tools allow for structured professional judgment and use both static risk factors (e.g., past criminal history) and dynamic risk factors (e.g., negative peer association) to clinically inform intervention plans (Hart, 1998; Andrews & Bonta, 1995). These tools are primarily based on the risk–needs–responsivity theory (Andrews & Bonta, 2010; Andrews, Bonta, & Hoge, 1990). This theory states that those involved in the criminal justice system should be treated based on their criminogenic needs using treatment strategies effective for the individual (Labreque et al., 2014). Preventing recidivism is optimized by matching interventions and intensity to risk level as determined by the assessment.

Risk assessment tools can assess risk of general criminal behaviour or specific behaviours such as sexual offending or violence. To account for variation in the demographic and social backgrounds of the criminal justice population, tools are now being tested to account for learning disabilities, mental health disorders and cultural heritage. For the purpose of this scan, risk/needs assessments are considered crucial in assessing risk for re-offence, to which PSU can contribute. Understanding risks ensures needs can be appropriately met, which might include treating PSU.

Summary of Research

Research shows that risk assessment allows practitioners to target interventions to the identified criminogenic needs of the individual, thereby increasing their likelihood for successful reintegration into the community (Geraghty & Woodhams, 2015; Labreque et al., 2014; Smid, Kamphius, Wever, & Van Beek, 2014). They are most effective when conducted early and revisited frequently throughout the individual's progress in the system. Assessment can be used to inform treatment plans as a comprehensive "healthcare management approach" (McCallum & Eagle, 2015) and ensure the use of appropriate supervision levels and referrals to programs and services in a probation setting

(Viglione, Rudes, & Taxman, 2015). Tools also provide useful data to tailor correctional policy in an agency and manage resources more effectively (Viglione et al., 2015; Belfrage et al., 2012).

A common risk assessment tool used in the correctional setting is the Level of Service Inventory–Revised (LSI-R) (Andrews & Bonta, 1995; Chenane et al., 2015). Evidence demonstrates the predictive validity of the LSI-R for individuals under correctional supervision, including incarcerated offenders, probationers and parolees (Gendreau, Goggin, & Law, 1997; Hollin & Palmer, 2006; Lowenkamp & Bechtel, 2007), and for those with varying risk levels and offence types (Hollin & Palmer, 2003). It has also been found to be the most effective tool for assessing violence and recidivism in female offenders (Geraghty & Woodhams, 2015). The LSI-R has predictive validity with Indigenous offenders, but not to the same degree as non-Indigenous offenders (Wormith, Hogg, & Guzzo, 2015). Labrecque, Smith, Lovins, & Latessa. (2014) found that the LSI-R is stronger in predicting risk when used over time to account for any improvements or increase in risk, as opposed to a single assessment. One study tested the LSI-R for its effectiveness in use in a drug court to assess the criminogenic needs of court participants. Results showed the information collected using the LSI-R was useful in terms of placement and treatment decisions for drug court participants as it focuses on dynamic needs (Guastaferro, 2012).

Risk assessment can also guide police in making decisions about risk management at the time of arrest or first contact. Police can use assessment to discern whether the individual requires detainment and processing through the criminal justice system or would benefit from community services related to substance use.[11] Risk assessment at first contact has been found to be useful for police predicting risk for intimate partner violence and managing this risk appropriately, as well as police providing young offenders an initial screening and referral to further assessment of care needs (Belfrage et al., 2012; Assink, van der Put, Oort, & Stams, 2015). This type of assessment illustrates an opportunity for police to make decisions about remanding individuals who are detained due to intoxication, but might not pose risk to the community, saving criminal justice resources.

Methodological Limitations

Studies of tool validity might not use representative study samples, meaning risk assessment tools traditionally have been developed and evaluated using an average population demographic. This practice has resulted in tools that might not account for the complexities of disorders related to mental health and substance use, and changes in behaviour. Thus, future risk is predicted using an individual's past behaviour, which might not necessarily reflect an individual's potential for change and will not take into consideration improvement due to treatment or medication, or challenges such as relapse (Webb, 2012).

Follow up periods with study participants were relatively short (e.g., six months), meaning a more accurate assessment of behaviour change might be available after greater time has passed since assessment (Jones et al., 2012).

Implementation Considerations

An important consideration for the implementation of risk assessment tools is that the effectiveness of the tool is dependent on how well staff administer the tool. Staff must administer the tool properly, analyze results correctly and apply appropriate corresponding risk management strategies (Viglione et al., 2015). To ensure effective administration, the service or organization responsible for conducting assessments must ensure staff receive proper training (Viglione et al., 2015; Teo, Holley, Leary, & McNiel, 2012). Some analysts have questioned the combination of risk assessment and treatment

11 This need was identified by AOPSU Working Group members as a need for the remand population.

needs in a single composite measure, instead suggesting that the two should be distinct indices (Labreque et al., 2014).

Conclusion

Risk/needs assessment can identify if PSU is a criminogenic risk factor that needs to be addressed with appropriate treatment. Assessment is useful in tandem with other measures to develop a well-informed treatment or release plan based on individual criminogenic needs, including treatment for PSU. Tools might also provide direction for police in determining if an individual is a risk to public safety or requires community-based treatment.

Key Considerations

- An evidence-informed validated risk/needs assessment should be conducted as soon as possible (i.e., as soon as an individual can consent).
- Risk assessments should be used with other methods (e.g., clinical evaluation) to inform treatment or release plans.
- Risk/needs assessments should be used throughout the individual's journey through the criminal justice system to account for changes over time. Ideally, the same tool will be used throughout with results being applied consistently.
- More research should be conducted to verify if risk/needs assessments can provide direction for police in determining if an individual is a risk to public safety or can remain in the community (e.g., participate in a community-based treatment).

Case Management and Release Planning

Case management generally can be defined as the coordination of essential services (e.g., social, medical, legal) to ensure a successful outcome for an individual. In terms of the criminal justice context, the goal of case management is to successfully reintegrate the individual by addressing many factors related to recidivism and relapse, and ensuring service continuity to achieve this end (Healy, 1999). Release planning prepares the individual for reintegration by assessing his or her needs, developing a plan based on these needs and transferring the care of the offender into the community (O'Grady & Lafleur, 2016).

The case manager is responsible for providing clear behavioural expectations to the offender, encouraging and supporting responsible behaviour, and ensuring the offender's correctional plan is realistic and viable (CSC, 2014a). Case management should begin early and continue throughout an individual's journey through the system. For example, case management can be used pre-trial to ensure the person appears at sentencing, be applied within the institution to coordinate access to appropriate programs, and used to connect the offender to relevant community resources upon release (Healey, 1999).

Case management and release planning are key to successful reintegration as offenders face a high risk of overdose and possible death during the immediate post-release period. This risk includes the potential for accidental overdose due to decreased tolerance (i.e., to opioids) or intentional overdose as a way out of a challenging situation (Binswanger et al., 2012). Offenders are also unlikely to engage in community treatment at this time, especially those leaving shorter incarceration periods (Kubiak, Zeoli, Essenmacher, & Hanna, 2011). Even with the best intentions, a majority of offenders will not proactively access resources or follow up on passive referrals without the guidance of a professional facilitated by a release plan. This lack of follow up can be related to the social context in which offenders

are often released, which is incongruent with abstinence (e.g., lack of positive social support) (Binswanger et al., 2012; Pettus-Davis, Scheyett, Hailey, Golin, & Wohl, 2009; Schroeder, Giordano, & Cernkovich, 2007). This issue is compounded by other barriers such as restriction on housing and employment access due to the offender's criminal and PSU history (Pettus-Davis et al., 2009). Effective release planning will link the individual to appropriate treatment and services within the community, which can help to prevent overdose and increase access to housing and employment opportunities.

Summary of Research

Research on the case management approach for individuals involved in the criminal justice system is mixed, with results varying due to intervention format and intensity. Some evidence illustrates that drug-involved offenders who participate in case management during probation showed positive clinical change related to their PSU over time, but these changes did not differ from those observed in a standard probation group (Guydish et al., 2011). Other research shows case management during probation and parole decreases rearrests rates and recidivism (Vanderplasschen, Rapp, Wolf, & Broekaert, 2007; Vanderplasschen, Rapp, Wolf, & Broekaert, 2004). Conversely, a study by Prendergast et al. (2011) found no significant differences between those who participated in case management and standard probation in terms of treatment participation or drug use.

Effectiveness of this approach may depend on the case management format. One format of case management is delivery through a team. This involves the collaboration of individuals responsible for an offender (e.g., parole officer, treatment provider). The team works together to ensure offender accountability, supervision and appropriate behavioural sanctions (Friedmann, Rhodes, & Taxman, 2009). This approach shows promising findings in the parolee setting, including decreased offender substance use and increased treatment use (Friedmann et al., 2012; Friedmann et al., 2009). Similarly, intensive case management where managers identify client needs, foster a relationship with the client and use an assertive or aggressive technique to ensure involvement in services can reduce drug use and criminal involvement, and increase treatment participation (Vanderplasschen et al., 2004; Vanderplasschen et al., 2007).

Benefits of case management and release planning include the maintenance of the progress made within the institution and connection of the individual to key services in the community, which in turn reduces potential strain on the health system (e.g., emergency room). Involving the individual early on in their case management and proactively managing PSU fosters feelings of vested interest and reduces mortality and recidivism (Cobbina, 2010; Baron et al., 2008; Byrne, Taxman, & Young, 2002; Kouyoumdijan et al. 2016; Clark, 2014; Tartaro, 2015). Conversely, weak release planning has been linked to negative outcomes such as hospitalization and threats to public safety (Hills, Siegfried, & Ickowitz, 2004; Osher, Steadman, & Barr, 2003).

Methodological Limitations

One methodological limitation of this evidence is the absence of randomized controlled trials. Selection bias occurred due to the voluntary nature of some studies and participation was not mandatory, possibly resulting in lower than anticipated treatment dosage (Prendergast et al., 2011). Similarly, many of these studies were conducted with volunteer practitioners (treatment, parole), which meant motivation and skill might have contributed to the program effect (Friedmann et al., 2012. Friedmann et al., 2009). Challenges of study design also included reliance on self-report data, use of reconviction rate as outcome (which only captures a proportion of crimes committed) and the lack of generalizability across varying case management interventions (Guydish et al., 2011; Prendergast et al., 2011). It is difficult to measure effectiveness of release planning if there is no follow up with the offender after

they have left incarceration. If services accessed by the offender are not evidence-informed, release planning might appear to be less effective.

Implementation Considerations

Case management can be challenging when resources in enforcement, corrections, and community services and supervision are already strained. Effective case management requires continuity of care, which is only achievable if staff can provide support and community resources are available (Guydish et al., 2011; Zhu, Dong, & Hesketh, 2009). Similarly, there can be a lack of communication between the different areas of the criminal justice system and community providers, meaning those responsible for release planning might be unaware of what is available to their clients. Transition into the community is a high-need period, meaning the case manager needs sufficient time and resources to facilitate reintegration. Case management can only connect the offender to appropriate services and programming, which does not mean the offender will access these services or fully commit to such programming (Prendergast et al., 2011).

Conclusions

Case management is an important component to ensure an individual is provided with the resources necessary to address PSU. Assessment, release planning and supervision are key to this process and ensure the many risks of re-entry to the community following incarceration (e.g., overdose, reuniting with drug promoting social circles) do not jeopardize the success of the offender.

Although research is mixed, it is apparent that components of case management are beneficial for individuals involved in the criminal justice system, including fostering a relationship and client-centred goal setting, as well as aggressive outreach and referral. Working with a team can ensure that the diverse needs of an offender will be addressed by those specializing in these areas.

Key Considerations

- Deliver case management using a team. Members of the team must communicate with one another and strive to share information about the individual, especially from the institution into the community.
- Release planning should begin as soon as possible and ensure any treatment progress made within the institution is maintained.
- Case management should be informed by a risk/needs assessment. Needs that are not met during an individual's contact with the system should not be a barrier to the individual's release.

Diversion Programs

It has become increasingly apparent over the past few decades that traditional approaches to management of drug-related offences — for example, incarceration — are ineffective. Interest has grown in other options, mainly focusing on education and treatment via diversion programs (Bull, 2005; Walker, 2001). There is tentative evidence showing diversion programs result in reduction in recidivism and drug use, with effects varying based on the risk and needs of the individual and the nature of the program (Lange, Rehm, & Popova, 2011). Options for diversion programs include screening and brief intervention at the time of arrest, pre-adjudication diversion programs, treatment in lieu of incarceration and drug treatment courts. Research is growing that supports these measures and best practices are beginning to emerge (Bull, 2005). Research about potential diversion programs for those with PSU has been summarized below.

Screening and Brief Intervention at Time of Arrest

Screening, brief intervention and referral (SBIR) is a tool that can be used to identify if an individual is at risk for PSU. This screening is different from the standardized screening that individuals undergo when entering a correctional institution. SBIR offers an opportunity to provide the individual with feedback on his or her potentially harmful substance use behaviours and advice for behaviour change, and to refer him or her to appropriate resources, if necessary (Barton, 2011). SBIR has been proven to be as effective as more intensive treatment in primary care settings (World Health Organization [WHO], 2003a), and might be useful in the context of intervention with individuals with PSU. Because the point of arrest yields the greatest number of individuals coming into contact with the criminal justice system (Kubiak, Arfken, Swartz, & Koch, 2006), use of SBIR at this time can lead to early identification of PSU among a large proportion of a high-risk population (Airth & Doherty, 2005). The arrest and detention period can be leveraged as a point in which the person is vulnerable, motivated to change and willing to take action about his or her substance use (Edmunds, Tiggey, Hearnden, & Hough, 1998; Turnbull, Webster, & Stillwell, 1995).

Summary of Research

Although the SBIR research reviewed for this scan was more qualitative than quantitative, it is clear that because of the high number of arrestees who are presenting with PSU (Kubiak et al., 2006) and the positive feedback from both participants and administrators (Brown, Newbury-Birch, McGovern, Phinn, & Kaner, 2010; Airth & Doherty, 2005), SBIR for arrest detainees is a worthwhile intervention to consider for implementation in an enforcement setting (Brown et al., 2010). This intervention is a feasible addition to the arrest process, which provides an optimal opportunity to intervene with a captive detainee (Chariot et al., 2014; Barton, 2011; Hopkins & Sparrow, 2006). Of the studies included in this review (all but one study evaluated alcohol only), there were a number of cases where improvements were documented after participation in the SBIR. These included:

- Reduction in alcohol use after the intervention (Hopkins & Sparrow, 2006);
- Reduction in arrests after the intervention (Hopkins & Sparrow, 2006; Airth & Doherty, 2005);
- Reduction in alcohol-related violence (Hopkins & Sparrow, 2006);
- Increased access to alcohol-related services (Barton, 2011);
- Increased motivation to modify alcohol-related behaviour (Sharp & Atherton, 2006); and
- Increased awareness of the harms associated with alcohol use, possibly resulting in behaviour change (e.g., physical, social) (Hopkins & Sparrow, 2006; Chariot et al., 2014; Sharp & Atherton, 2006).

Another beneficial aspect of this intervention is the ability to collect baseline data on the needs of arrestees. This data can be used as evidence of the need for increased services, which could help to elicit buy-in from other agencies and the public. Demographic data collected from these samples can also be used to target prevention campaigns (Barton, 2011).

Methodological Limitations

Although SBIR at the time of arrest was deemed useful and effective, there are some methodological considerations about this research. Participation in SBIR was often voluntary, meaning individuals who were willing to participate in the intervention might have already been inclined to change (Barton, 2011; Brown et al., 2010). Most of the results presented here are based on small sample

sizes, and in some cases there was no control group (Hopkins & Sparrow, 2006; Sharp & Atherton, 2006). Further, some studies did not follow up with detainees to gauge their behaviour change, which was instead measured by their immediate response to the intervention or by the observations of the practitioner delivering the intervention. Studies that did follow up with detainees often experienced difficulty with tracking these individuals and securing feedback or followed up within a short time frame (e.g., three to six months) (Hopkins & Sparrow, 2006; Brown et al., 2010).

Some study authors noted that it is challenging to pinpoint with certainty whether the SBIR was the reason an individual changed his or her behaviour (Barton, 2011). Other factors might have contributed to or caused a reduction in substance use (e.g., the arrest itself acting as a "wake up call" or threat to one's home life and career). Other circumstances, such as probation conditions, might have contributed to the person's decrease in substance use or re-arrest (Hopkins & Sparrow, 2006). Finally, a majority of the results reported in the studies were qualitative (e.g., physician or detention officer feedback), making it difficult to prove that behaviour change was caused directly by SBIR (Barton, 2011; Brown et al., 2010; Chariot et al., 2014; Sharp & Atherton, 2006).

Implementation Considerations

Some considerations about the feasibility of delivering a health-related intervention in an enforcement setting that were highlighted in the literature:

- Appropriate and trained staff are needed to deliver the SBIR. Staff should have a background in treating PSU and should be comfortable playing a healthcare practitioner role. Detention officers might not be best suited for this role (Barton, 2011; Chariot et al., 2014; Brown et al., 2010).
- Interventions presented within a punitive context (i.e., police station) might not foster a rehabilitative "helping relationship" between staff and detainees (Chariot et al., 2014; Barton, 2011).
- Success of SBIR at point of arrest relies on support by police who are responsible for referring arrestees. Officers with negative attitudes towards the intervention were more likely to experience negative interactions with program participants (Brown et al., 2010; Hopkins & Sparrow, 2006).
- Staff might be too busy to deliver the SBIR, especially specialized staff whose time is prioritized elsewhere when there is a high volume of alcohol-involved detainees (e.g., nurses less likely to be available during night shifts) (Brown et al., 2010; Hopkins & Sparrow, 2006).
- SBIR must be delivered when the detainee is no longer impaired (e.g., directly before the individual is released). This timing is important to ensure the arrestee can consent appropriately and is coherent enough to engage in the process (Brown et al., 2010; Barton, 2011).

Conclusion

Although this tool is promising for the arrestee population, many of these results are based on a small sample size, with findings that lack statistical significance. Nonetheless, research supports the arrest and detention period as an opportunity to intervene with a low-risk individual early on in the system with a relatively low commitment of resources. This environment gives the individual an opportunity to reflect on his or her PSU, increasing the motivation to change. The data provided by these screenings is also useful for securing resources and understanding the needs of the target population.

Key Considerations

- This is a promising approach, but more research is needed to better understand its effectiveness.
- If SBIR is adopted, screenings should be conducted by a dedicated staff member who is a trained healthcare professional, such as a nurse.

Pre-adjudication Diversion Programs

Pre-adjudication diversion programs act as an alternative to prosecution for low-risk individuals with identifiable rehabilitative needs (Ulrich, 2002), regardless of whether the individual is guilty of the offence. To ensure a low level of risk in terms of community safety and likelihood of appearance, participants ideally should not have a significant criminal history. Most programs employ individualized supervision plans that address criminogenic needs (Zlatic, Wilkerson, & McAllister, 2010). Program goals include decreasing substance use and crime, and improving health and social functioning (Passey, Bolitho, Scantleton, & Flaherty, 2007).

Pre-adjudication diversion programs lessen the strain put on the courts as they do not use court resources, thereby conserving time for cases that have a higher priority. That being said, these individuals require some case management to ensure supervision and referral to appropriate programs (Zlatic et al., 2010).

Pre-adjudication diversion programs vary in structure, but participation is often voluntary and rarely require admission of guilt from the individual. In some cases, the offence can be expunged from the record if the program is completed successfully (Zlatic et al., 2010). Programs can be pre-plea, while the individual is on bail, or can be completed before sentencing so that successful program outcomes can be taken into consideration by the court with the potential for a less severe sentence (Martire & Larney, 2011).

Summary of Research

The following effects were attributed to participation in pre-adjudication diversion programs:

- Positive impact on the lives of participants through less severe sentencing or the avoidance of criminal conviction (Passey et al., 2007; Zlatic et al., 2010);
- Decrease in risk of re-offence for program completers (Passey et al., 2007) and reduction in the average number of offences per month for diverted individuals (Steadman & Naples, 2005);
- Improved general and mental health after program exit (Martire & Larney, 2011);
- Reduced number of days of alcohol use (Martire & Larney, 2011);
- Greater time spent in the community (Steadman & Naples, 2005); and
- Increased healthcare involvement through access to social services that address individual criminogenic needs, including substance use (Zlatic et al., 2010; Steadman & Naples, 2005).

Two studies included in this review also examined the cost savings of pre-adjudication diversion. They found that significant time and resources can be saved within the criminal justice system if these programs are employed (Zlatic et al., 2010). Steadman & Naples (2005) found that although diversion lowered criminal justice costs there was a corresponding increase in community treatment costs because of an increase in diverted participants accessing treatment. Hence, for this option to be feasible a corresponding investment in community services is required.

Methodological Limitations

Many of the studies cited above were not randomized control trials or were based on small sample sizes (Martire & Larney, 2011). Other studies that used control groups were limited to the use of study non-completers or those who were not diverted, but instead incarcerated, raising concern for bias (e.g., non-completers were also exposed to the program, making it difficult to distinguish program effects, while non-diverted individuals were not in the community) (Passey et al., 2007; Steadman & Naples, 2005).

Implementation Considerations

Effective diversion programs require the availability of resources such as tailored treatment plans, supervision and monitoring in the community, and evidence-informed treatment or interventions. (Zlatic et al., 2010). Program success is dependent on support from external staff, especially those referring participants. For example, the opinions of police about whether clients "deserve" to be given the more "lenient" option affect the chances of eligible arrestees being referred (Passey, Flaherty, & Didcott, 2006). Diversion programs also need to respect the principle of responsivity, matching the level of risk and need to the level of intervention to avoid net-widening or over-intense programs that can increase criminal justice involvement (Public Safety Canada, 1998).

Conclusion

Diversion before trial can significantly reduce the burden on the court system, provide access to treatment for participants and reduce the severity of sentencing. However, there are considerable resources needed to ensure program success such as accurate assessment of risk to the community, accessibility of evidence-based interventions matched to individual needs and supervision of program participants.

Key Considerations

- Before implementing a pre-adjudication diversion program, ensure that appropriate community services (e.g., treatment, supervision) are available to handle an influx in clients.

Treatment in Lieu of Incarceration

Treatment in lieu of incarceration is a diversion option for low-risk individuals with substance use issues or substance use-related offences, and involves sentences requiring treatment and community supervision in place of incarceration. Treatment can include one-on-one sessions with a counsellor, education on harms and consequences of substance use, peer mentoring and structured social activities (McSweeney, 2015). Other, more punitive sanctions can include house arrest with electronic monitoring or boot camps meant to instill offender accountability (Warner & Kramer, 2009). Some programs aim to restrict offender movements and monitor their compliance with program requirements (Dupont-Morales & Sims, 2001), while others focus on offender rehabilitation.

Many of these diversionary programs are put in place due to changes in sentencing policies that require judges to consider treatment in lieu of incarceration for non-violent drug offenses. The goal of such a program is to divert individuals away from incarceration to lessen the burden on the correctional system, while simultaneously preserving public safety. Program eligibility can be based on numerous factors, including the offence of conviction, prior criminal history (Rengifo & Stemen, 2009), and the presence of PSU or other issues identified through assessment.

Summary of Research

Overall, research to date is mixed about the effectiveness of treatment in lieu of incarceration in reducing recidivism and PSU.[12] The positive findings included lower re-arrest rates for diverted offenders and reduction in substance use and dependence (Warner & Kramer, 2009; Baldwin & Duffy, 2010). Other studies, however, did not find a significant impact in terms of substance use or recidivism for diverted offenders, and increase in re-arrest was seen in some cases. Authors theorize the latter finding might have been due to the increased number of revocations tied to higher levels of supervision for program participants (Rengifo & Stemen, 2009; McSweeney, 2015; Stemen & Rengifo, 2012).

Evaluation of the cost savings of this approach is similarly inconclusive: diversion programs that are successful in diverting offenders from incarceration into treatment might reduce adjudication and incarceration costs (Zarkin et al., 2012), but might also to lead to an increase in admissions to correctional institutions due to supervision failures and increased treatment expenditures (Stemen & Rengifo, 2012).

Methodological Limitations

A majority of the articles found in this scan covered the effect of a sentencing policy change specific to a jurisdiction (California), making data limited in terms of context and scope. Treatment quality and availability varies across jurisdictions, meaning the effect of treatment in lieu of incarceration can vary (Warner & Kramer, 2009). AOPSU Working Group members cited a similar barrier when discussing the community services available in Canadian jurisdictions; mainly, community services vary across the country, which means that changes in policy affect each jurisdiction differently.

Other weaknesses included a lack of use of substance use as an outcome variable, limited recidivism outcomes (e.g., arrest data only), lack of or weak control groups, and short follow up periods (McSweeney, 2015; Stemen & Rengifo, 2012; Warner & Kramer, 2009; Rengifo & Stemen, 2012; Baldwin & Duffy, 2010).

Implementation Considerations

This diversionary structure is designed primarily for low-risk individuals due to it being implemented within the community. This means that high-risk individuals with diverse needs are not provided with early access to treatment services. Similarly, individuals with diverse needs who are screened into diversion require intense or lengthier treatment options that might not be available in the community. Implementing such a diversion program would require an increase in the availability of community-based treatment services (Evans, Huang, & Hser, 2011; Niv, Hamilton, & Hser, 2009).

As with any program, the effectiveness of diversion is reliant on the support of the practitioners managing and delivering key services. For example, judges must sentence appropriate offenders to the program (Stemen & Rengifo, 2012) and practitioners from different areas (e.g., probation and treatment) must communicate and agree upon appropriate treatment paths for offenders (Niv et al., 2009).

Conclusion

Overall, research appears inconclusive in terms of treatment in lieu of incarceration as an effective means of reducing recidivism and PSU. Some cost savings analyses show that these programs could successfully reduce the resource burden on the criminal justice system, but also result in supervision

12 The evaluations summarized in this section are based on data from the United States and the United Kingdom.

failures that send offenders back into the system. Reasons for supervision failures included restrictive, inflexible or non-existing treatment options and disagreement among practitioners about appropriate treatment plans for offenders.

Key Considerations

- More research should be conducted to measure the benefit of treatment in lieu of incarceration, as well as to develop best practices to mitigate against any negative program effects.

Drug Treatment Courts

The drug treatment court model combines the authority of the court with substance use treatment to reduce substance use among those involved in the criminal justice system and to reduce drug-related crime (National Association of Drug Court Professionals, 1997). There are many variations on the drug court model. Generally, eligible participants are informed that their successful completion of the program will result in a reduced or dismissed charge or sanction. Participation can begin as early as screening during an arrest. Program eligibility criteria is often based on threat to public safety and severity of drug using behaviours. For example, indicators of PSU and severity of criminal history are reviewed (CCSA, 2007). Program requirements can include frequent urine testing, treatment attendance and status hearings with the judge. Participants might receive positive feedback related to their progress, including praise or tokens of achievement. Similarly, participants will face sanctions such as incarceration if they are not following court rules. Successful clients will advance through increasingly less intensive stages until they have completed the program (Mitchell, Wilson, Eggers, & MacKenzie, 2012).

There are a number of established best practices for the structure of drug treatment courts. Primarily, the court process should include a treatment component that is undertaken in tandem with participation in the court program. Eligible participants should be identified early, brought promptly into the program and provided with a continuum of care. The court should respond swiftly and consistently to compliance and non-compliance. Programs should aim to evaluate effectiveness and continuously offer interdisciplinary education for staff. Maintenance of partnerships between courts, treatment facilities, public agencies and community organizations is also crucial to effectiveness. This partnership allows for programming to remain flexible and accommodate various participants (National Association of Drug Court Professionals, 1997; Department of Justice Canada, 2006).

Summary of Research

A plethora of research is available evaluating the effectiveness of drug treatment courts. Research highlights the variation in program outcomes based on participant backgrounds and the disparity in effectiveness due to numerous program structures. Researchers have conducted a number of systematic reviews and meta-analyses to ascertain the overall effectiveness of drug courts in reducing recidivism, criminal behaviour and substance use. Many evaluations yielded positive outcomes of drug courts while others found mixed results.

Compared with other correctional trajectories (e.g., probation, traditional adjudication) or with non-participants or participant drop outs, some research shows that drug court participation can reduce recidivism, re-offence and criminal behaviours, and increase time to re-arrest (Gallagher et al., 2015; Brown, 2010; Patra et al., 2010; Wilson, Mitchell, & Mackenzie, 2006; Mitchell et al., 2012). These effects have been found to extend past program participation and are not limited to the short term (Mitchell et al., 2012). Participation in a drug treatment court can also lead to adoption of harm reduction strategies by offenders (e.g., using marijuana instead of heroin) (Wittouck, Dekkers, De Ruyver, Vanderplasschen, & Vander Laenen, 2013; Brown, 2011; Mitchell et al., 2012).

Evidence shows that these program effects were also found although to a lesser degree in those who participated in drug court programs, but did not complete the program (Francis & Reynolds, 2015; Gifford, Eldred, McCutchan, & Sloan, 2014). This evidence is encouraging as some drug treatment courts experience low completion rates (Gifford et al., 2014).

Evidence shows that the characteristics of those participating in drug courts, including offence type and demographics, could affect program effectiveness (Bouffard & Smith, 2005; Holloway, Bennett, & Farrington, 2006; Larsen, Nylund-Gibson, & Cosden, 2014). The demographic variables include cultural backgrounds, employment status and level of family support (Dannerbeck, Harris, Sundet, & Lloyd, 2006). This evidence provides important context to keep in mind when looking at research supporting drug courts and illustrates that this option might not be universally effective for all offender types.

Methodological Limitations

There are limitations associated with systematic reviews and meta-analyses. For example, publication bias exists in peer-reviewed literature as studies that demonstrate an effect are more likely to be published compared to those that do not find an effect. Another limitation of systematic reviews and meta-analyses is that they compare studies with varying methodologies, sample sizes, populations and measurement instruments. Comparison of studies with the same methodologies might be more valid (Wittouck et al., 2013).

There is a lack of drug court evaluations using randomized controlled trials. This lack is concerning as randomized controlled trails of drug treatment courts are less likely to find positive effects than other evaluation methods (Wilson et al., 2006; Brown, 2010). Most evaluations use participant dropouts as a control group. This practice creates bias as successful program completers might have been inherently more motivated than dropouts (Wilson et al., 2006). Future research should focus on those who drop out of drug courts and those who are not screened into drug courts as they are the most at risk. It would also be beneficial to evaluate this intervention by comparing it with community-based treatment.

Few studies use drug-related life domains (e.g., housing, employment) as outcome variables. This gap is concerning as these are important contributors to recovery (Laudet, Becker, & White, 2009; De Wree, Pauwels, Colman, & de Ruyver, 2009; Best, Ghufran, Day, Ray, & Loaring, 2008). Finally, positive participation outcomes experienced while an individual is enrolled in the program might not indicate long-term impact because it is less likely a participant will reoffend or violate while they are enrolled due to the potential for punishment (Mitchell et al., 2012).

Implementation Considerations

Considerations for drug treatment court implementation include:

- Inclusion criteria and program rules can inappropriately exclude program participants. Drug treatment courts must strike a balance between public safety and admitting individuals who would benefit from the program. Some programs have strict criteria or unrealistic requirements that can screen out appropriate participants. For example, excluding those who have previous trafficking convictions would screen out many of those with PSU (Mitchell et al., 2012).
- Services should be flexible with the option to tailor requirements based on the participants. Drug court participants present with various backgrounds and needs, which can affect outcomes and which should be reflected in a tailored approach to treatment (Leukefeld, Webster, Staton-Tindall, & Duvall, 2007).

- Program success depends on the quality of the services it provides to participants. Drug treatment courts rely on their service providers to ensure treatment is administered appropriately and effectively. Courts must have a positive relationship and strong communication with treatment providers to ensure supervision of participants (Wilson et al., 2006).

Conclusion

Evidence illustrates that there are positive recidivism and substance use outcomes for those who complete drug treatment court compared with those who do not participate or who drop out of the drug court program. There is also anecdotal evidence that this intervention is beneficial in certain cases. That being said, drug treatment courts might be screening out high-risk offenders, which means that allocating significant resources to this intervention might only service a small proportion of those who require treatment.

Key Considerations

- More focused research is needed to understand the characteristics of those offenders who thrive in drug treatment courts.
- Once these characteristics have been determined, drug treatment courts should target their programming based on them.
- Alternatives should be provided for those offenders who would not benefit from drug treatment courts.

Probation and Parole

Probation is the most common form of community supervision in Canada with 82% of adults in the correctional system in the provinces and territories being supervised in the community (while 18% are in custody). In 2013–2014, an average of 95,680 adult offenders were supervised under probation and conditional sentences, while an average of 7,754 were under parole or statutory release (Correctional Services Program, 2015). Probation and parole provide an opportunity for community-based supervised rehabilitation, as well as a chance to apply appropriate intermediate sanctions (Linhorst, Dirks-Linhorst, & Groom, 2012). Intermediate or graduated sanctions are rigorous and intrusive, but less so than incarceration (Taxman, Soule, & Gelb, 1999; Ulmer, 2001; Aukeman & McGarry, 1994). Examples of intermediate sanctions include intensive supervision programs, day reporting centres, house arrest, electronic monitoring, restitution, community service and halfway houses (Caputo, 2004).

Probation and parole offer an opportunity to screen individuals, provide feedback on their substance use behaviours and facilitate access to appropriate treatment and rehabilitation in preparation for community reintegration. Access to treatment is achieved through a case management approach.

Summary of Research

Probation and parole officers play an important role in ensuring individuals continue PSU treatment, an important component to their successful reintegration. Researchers have found that parole approaches including treatment lead to an increase in parolee access to re-entry services (Friedmann et al., 2009). Similarly, PSU treatment during probation can lead to a reduction in condition breaches and re-arrest (Benedict, Huff-Corzine, & Corzine, 1998; Evans, Longshore, Prendergast, & Urada, 2006; Hiller, Knight, Devereux, & Hathcoat, 1996; Huebner & Cobbina, 2007; Krebs, Strom, Koetse, & Lattimore, 2009; Lattimore, Krebs, Koetse, Lindquist, & Cowell, 2005).

Probation and parole officers can use tailored psychosocial interventions, which can foster motivation to change, increase self-esteem and change the offender's lifestyle. These interventions have been shown to reduce reconviction rates (Palmer et al., 2011; Linhorst et al., 2012). Probation and parole officers can also apply treatment readiness interventions, which aim to alter negative opinions of treatment. These have been found to increase treatment program participation and reduce substance use (Roque & Lurigio, 2009).

Abstinence Conditions

A substance use disorder is a chronic health condition (Saitz, Larson, LaBelle, Richardson, & Samet, 2008) that can be clinically diagnosed.[13] Areas of the brain that are responsible for cognitive control, reward, motivation and impulsivity can be impaired by substance use, making it challenging for the individual to control desire and emotions, or make difficult decisions (Hester & Garavan, 2004; Fellows, 2007). Changes such as these illustrate why clinical substance use dependence is often referred to as a brain disorder (Chandler, Fletcher, & Volkow, 2010). With this in mind, probation or parole conditions requiring abstinence for individuals with extensive histories of PSU can be unrealistic. Instead, gradual expectation of abstinence — with potential lapses possible — might be more fruitful (Turnbull, McSweeney, Hough, Webster, & Edmunds, 2000). When abstinence is the primary goal of treatment or reintegration, there is a reduced opportunity to address the underlying issues related to PSU (Zelvin & Davis, 2001).

Having an offender choose goals related to rehabilitation is more effective in terms of treatment outcome than mandatory abstinence (Miller, Forcehimes, & Zweben, 2011). Slips or lapses in substance use can be used as an opportunity to have the individual think about their use, understand why a lapse happened, and discuss with the probation or parole officer strategies to reduce the likelihood of further lapses (Weekes, AOPSU Working Group, 2017).

Methodological Limitations

As for previous system components, there was an absence of randomized controlled trials in the literature about probation and parole (Linhorst et al., 2012; Roque & Lurigio, 2009), as well as weak control groups. For one study, this meant using program non-completers as a control group, which can skew outcomes (Roque & Lurigio, 2009). Challenges of study design also included reliance on self-report data, use of reconviction rates as an outcome and the inability to generalize across varying probation and parole programs (Palmer et al., 2011).

Implementation Considerations

There are certain implementation considerations when considering incorporating the above components into existing treatment structures. Mainly, probation officers and services are already overburdened. This workload makes it challenging to create additional responsibility for these practitioners or to alter already strained systems. Officers might be pre-disposed to taking an authoritative and punitive role (similar to law enforcement) rather than a supportive or rehabilitative role (e.g., ensuring appropriate support during relapse), which means that altering this change in mindset could require time. Finally, completion of treatment plans laid out for probationers and parolees should not result in violations if not completed. In other words, understanding offender needs should not translate to probation or parole conditions as such conditions might increase the likelihood of violation.

13 Clinical diagnostic criteria for substance use disorders are available in the DSM-5 (American Psychiatric Association, 2013).

Conclusion

An important component of probation and parole is ensuring an individual is set up for success. Probation and parole present an opportunity to provide coordination and support to address PSU in the community context. Considering PSU a health issue as opposed to a criminal behaviour will help to ensure conditions placed on the offender are realistic.

Key Considerations

- Incorporate psychosocial and treatment readiness interventions, substance use treatment and community-based services and supports in probation and parole.
- Approach abstinence as a gradual goal, where lapses do not result in violations or removal from program. Instead, use lapses as an opportunity to discuss future relapse prevention.
- Abstinence and treatment completion should not be conditions of probation or parole.

Transition and Post-release Community Reintegration

Institutional programming might not attend to the social and economic factors that are part of successfully addressing PSU (e.g., relationships, health and mental health, housing and employment). Individuals involved in the criminal justice system often do not come from environments where social and economic resources are available, meaning they will need to be connected to these supports upon their release (Lyons & Lurigio, 2010). Similarly, the trauma of incarceration can cause or trigger mental illness, which further contributes to the complexity of substance use and associated community programming needs (O'Grady & Lafleur, 2016).

Reintegration is a period of high risk for relapse and overdose. Early relapse after discharge from abstinence-based treatment is common and can lead to death due to overdose (Smyth, Barry, Keenan, & Ducray, 2010; Kouyoumdjian et al., 2016; Merrall et al., 2010). To address this risk, transition and post-release services should aim to provide a continuity of care that assists in maintaining positive behavioural changes related to substance use (McKay, 2001; De Leon, Melnick, Thomas, Kressel, & Wexler, 2000; Harrison & Martin, 2003). CSC's Federal Community Corrections Strategy states that community reintegration begins as early as intake. It should be facilitated through dynamic assessment and appropriate interventions, which can be achieved through inter-agency collaboration (Pisapio, White, & Altimas, 2015).

The community environment provides an opportunity to deliver various services that might not be available within the institution. For example, in conjunction with continued treatment for PSU, these services can include employment training, provision of child care, supportive housing, and day programs for education and skill building. Another benefit of working within the community is the opportunity to interact with service providers who are familiar and trusted (Pisapio et al., 2015). Ideally, such services are coordinated and accessible through a single point of contact.

The following subsection summarizes options for structures that facilitate reintegration and provides examples of community services aimed at addressing PSU.

Summary of Research

Continuity of care from the institution to the community should be the focal point of reintegration. Research shows the continuation of treatment after release improves the likelihood of the participant's success (Smith, Gates, & Foxcroft, 2006; Malivert, Fatséas, Denis, Langlois, & Auriacombe, 2012). Evidence indicates that treatment in both the correctional system and

community is more effective than in either setting alone (Burdon, Dang, Prendergast, Messina, & Farabee, 2007) and can result in large cost savings (Zarkin et al., 2012). An aftercare component should coincide with the programming offered while an offender is incarcerated. Similarly, continuity of health care (such as medication), should also be prioritized: any medications needed by an individual should be made available, especially when release into the community is a possibility. For example, individuals attending court with a possibility of immediate release might be provided with a few days' worth of essential medications in case they do not have immediate access to a doctor or pharmacy.

Agencies responsible for service delivery can affect the success of continuity of care. Generally, the provision of healthcare services within the institution is the responsibility of public safety rather than a health ministry. This division of responsibility results in two different systems providing care to offenders and the public, as well as unequal access to health care for offenders. There can be a lack of staff and limited resources and expertise related to health and service delivery during incarceration compared to the community (John Howard Society, 2016). If the health needs of offenders, including PSU, are not addressed, these issues return to the community and can negatively affect reintegration (Visher & Mallik-Kane, 2007).

To address continuity of care, the World Health Organization recommends integrating ministries of health with correctional services so that the health services delivered in corrections are the same as those delivered to the public (WHO, 2003b). Evidence shows that integrating health and correctional systems improves continuity of care, as well as the well-being of the correctional population. It also improves and expands program and service delivery, increases access to community services and reduces recidivism (Strang, van den Bergh, & Gatherer, 2012; Hayton & Boyington, 2006; International Centre for Prison Studies, 2004).

Providing individuals involved in the criminal justice system with access to needed community services also results in greater treatment retention and better outcomes (Pringle et al., 2002). Integrated or wrap-around service delivery models allow for access to several services through one point of contact, whether services are co-located or there is a case manager who can make the appropriate referrals. This format is developed through partnerships between complementary agencies involved in reintegration (e.g., parole, treatment) and allows workload to be spread among several providers (Gilbert & Terrell, 2005).

Similarly, the **hub model** service delivery format facilitates agency collaboration through regular meetings between key practitioners (e.g., police, probation, addictions, social work, mental health, etc.) to share relevant information about clients who pose particular risks or challenges. These meetings are used to develop integrated intervention plans and ensure client needs are met through services and supports. An evaluation of this model found that it broke down traditional institutional silos that prevented agency collaboration, as well as provided quicker access to services and increased effectiveness of service delivery (Nilson, 2016).

The partnerships formed by integrating services provide exposure to new perspectives and advice, which helps to narrow the gap between the institution and the community. Agency collaboration also increases understanding of the unique challenges within organizations (Pisapio et al., 2015). Integrated services have been found to result in higher treatment retention, increased participant adherence to treatment plans and strengthened reintegration (Hellerstein, Rosenthal, & Milner, 2001; Willis & Ellison, 2007; Coll, Stewart, Morse, & Moe, 2010).

Offender re-entry programs incorporate wrap-around service and continuity of care to promote smooth release from the correctional institution and reintegration into the community. Such programs connect individuals to resources, such as substance use treatment, housing and mental health care, based on a needs assessment. These programs can be guided by one body that uses a network to facilitate

access to services (Borzycki & Baldry, 2003), as one service alone cannot accommodate the diversity of needs. In some studies, these programs have shown promise in reducing relapse and recidivism (Duwe, 2012; Lattimore & Visher, 2010; Sample & Spohn, 2008; Zhang, Roberts, & Callanan, 2006); however, in other studies, they have led to increased rates of relapse and recidivism (Bloom, Redcross, Zweig, & Azurdia, 2007; Lattimore et al., 2012; Severson, Bruns, Veeh, & Lee, 2011).

PSU treatment can come in several formats within the community, including **residential** and **non-residential treatment.** Residential treatment, where the participant is living within the facility for a certain period, has been found to reduce the risk of re-arrest, re-conviction and re-incarceration, and to be lower in cost than incarceration (French, Fang, & Fretz, 2010; Pérez, 2009). Non-residential treatment can also result in reduced recidivism and re-arrest (Lattimore et al., 2005).

Another transition support is **sober living housing**, which does not provide treatment, but provides an alcohol- and drug-free residence for individuals attempting to establish or maintain sobriety. These forms of housing vary greatly in their characteristics. Living in sober housing can lead to a reduction in substance use and improve employment outcomes. It also provides needed housing and can facilitate compliance with other types of mandated or required services (e.g., mental health treatment) (Polcin, Korcha, Bond, & Galloway, 2010). Sober housing can be most effective for those who are motivated to reduce their substance use and have some financial resources (Polcin, 2006). This form of accommodation might result in higher continuous rates of abstinence than therapeutic communities or standard aftercare (Jason, Olson, and Harvey, 2014).

Methodological Limitations

Compared to evidence related to within-institution therapeutic communities, drug courts and diversion programs, evaluations of community-based reintegration programs are underdeveloped, inconsistent and generally based on weak research designs (Chanhatasilpa, MacKenzie, & Hickman, 2000; Hiller, Knight, Saum, & Simpson, 2006; Perry et al., 2009). This difference in the evidence base might be due to the barriers that exist with regards to evaluating aftercare and reintegration. There is no standard definition of aftercare or successful reintegration, and the setting, intensity, duration and modality of care varies greatly across communities. Similarly, the intensity of treatment during incarceration varies and is not always followed up with equivalent aftercare, which can limit treatment effectiveness (Pelissier, Jones, & Cadigan, 2007).

Another challenge in this research is the difficulty in controlling the treatment amount once the offender is released into the community. This less controlled environment might result in inconsistent levels of intervention being applied to intervention or control groups. Finally, evaluation of community programs often takes place in urban areas, which means that findings might not be generalizable or relevant to rural populations (French et al., 2010).

Implementation Considerations

Effective implementation and use of community-based interventions and treatment poses some challenges. These include:

- **Managing service quality and consistency.** Community service providers might not be under a singular governing body, which means the quality and consistency of services can vary. Although evidence illustrates that an increase in community service availability can be warranted, this increase needs to occur under supervision to ensure maintenance of treatment service quality (Burdon et al., 2007). Even with appropriate oversight, services can vary over time and by jurisdiction. Similarly, content and format of services provided in the community can vary more than with services provided within the institution.

To ensure service quality, community service providers and criminal justice agencies need to coordinate their efforts. For example, the collection of participant data needs to be consistent and accurate throughout the system. Screening results and referrals should be consistently tracked and communicated to all relevant service providers (Willis & Ellison, 2007). Strong data collection and use of such data for evaluation will assist with quality control and performance monitoring of the program.

Participation in treatment within the institution should be acknowledged and built upon once the offender is released. Parolees have reported that they were not given credit for past treatment when entering the community, and services within the community did not pick up where their previous treatment left off (Burdon et al., 2007).

- Different offenders will need different intervention formats and intensity. In line with the risk–needs–responsivity model (Andrews & Bonta, 2010; Andrews et al., 1990), treatment plans must take into consideration the individual's progress related to PSU and corresponding level of service need. The level of treatment intensity should be matched to the individual's level of risk and need to ensure his or her success (Grommon, Davidson, & Bynum, 2015).
- Time commitment needed to develop stable and coordinated community-based services. Developing, implementing and refining community-service provision that links seamlessly to the correctional system takes considerable effort and time. Olson, Rozhon, and Powers (2009) estimate that two to three years are needed for implementation and evaluation of a single community program before effects can be measured accurately. Unfortunately, there is often a lack of time and resources allotted to allow new programs to evolve (Mears, Winterfield, Hunsaker, Moore, & White, 2003), and success often depends on the political and financial climates in which implementation occurs.
- Lack of resources and capacity. Services and resources needed by the criminal justice population can be out of reach of community service providers. For example, social support (e.g., non-substance using peers) is integral to successful reintegration, but cannot be provided by formal services (Pettus-Davis et al., 2009). Similarly, certain individuals can benefit from relocation to a different geographic area after release from incarceration to remove themselves from an environment that can trigger substance use. Providing such a service would be too resource intensive for a community provider (Zhu et al., 2009).

  The time, funds and capacity needed to sustain a community program might not be available. Program evaluation is time consuming and resource intensive, making it difficult to illustrate a program's worth. Ensuring that funding is sustainable can take up significant labor, but is crucial to maintaining the program.
- Stigma and restrictions. This population faces stigma and formal restrictions due to their history of both crime and PSU. Stigma and restrictions can place barriers on successful reintegration, for example, finding stable housing and employment. Restrictions on socializing with other people who use substances can isolate an individual who has no other social support (Lyons & Lurigio, 2010). Such isolation is concerning as these challenges could exacerbate mental health problems and trigger relapse (van Olphen et al., 2009).

Conclusions

It is apparent that transition from corrections into the community is a pivotal intervention period. This reintegration should be part of case planning as early as possible. Access to needed services, as well as the development of a positive support network needs to occur upon re-entry. This requirement

places pressure on community services. Because of this pressure, federal and provincial ministries responsible for corrections might need to provide resources to community programs to support post-release service delivery.

Key Considerations

- Ensure aftercare is informed by the care provided within the institution to ensure progress is maintained. This continuity can be achieved by developing a release plan early.
- Coordinate and integrate services, as this will improve the effectiveness of delivery (i.e., wrap around or hub model).
- The institution responsible for delivering health services in the community should also deliver health services to the correctional population.
- Ensure community treatment options are flexible to meet the diverse needs of participants.
- Maintain a capacity to assess service and quality within the community to ensure evidence-based programming is available. Provide resources for evaluations.
- If a positive support network is not available to the offender, supplement with supportive networks within the community (e.g., peer programs).
- Correctional institutions should communicate consistently with community service providers so that they are aware of those being released. For example, if a warrant expiries, there is otherwise no follow up with these individuals.

Treatment Approaches

The literature on rehabilitation of people involved in the criminal justice system highlighted a number of practices in treatment. The focus of this environmental scan is on the application of those approaches in a criminal justice context. A full review of the treatment literature, methodological limitations and implementation considerations is beyond scope of this project. Treatment approaches are addressed individually below, but in practice are often used most effectively in combination. Each of these methods can be used throughout the system, including within brief intervention, diversion, incarceration, probation and parole, and reintegration. The PSU treatment approaches summarized below might not be tailored for or available to the Indigenous population.

Withdrawal Management

Withdrawal management refers to the initial supervised, controlled period of withdrawing from substances of abuse, such as alcohol (Pirie, Wallingford, Di Gioacchino, McQuaid, & National Treatment Indicators Working Group, 2016). Withdrawal management aims to minimize or avert withdrawal symptoms in a safe manner with appropriate supervision from a healthcare practitioner such as a physician or a nurse. This supervision can prove challenging as there might not be staff available to supervise such processes. A number of prescription medications[14] might be used to assist in this process, at a dosage that will not induce intoxication and that is gradually tapered off as the individual recovers (CCSA, 2013). Models of service provision for offender withdrawal management include residential drug treatment units in institutions, admission to an institutional hospital and outpatient treatment with the offender remaining in their cell in the main institution (United Nations Office on Drugs and Crime [UNODC], n.d.).

14 These medications are described in more detail in the pharmacotherapies section.

Summary of Research

Lack of appropriate withdrawal management services can lead to negative consequences for the individual. Safe withdrawal management requires surveillance and monitoring of the individual, trained medical staff presence, and medication and withdrawal management planning, as well as rest, fluids and nutrition (Substance Abuse and Mental Health Services Administration [SAMHSA], 2006). Without appropriate withdrawal procedures, those involved in the criminal justice system are at a higher risk for suicide (Rivlin, Ferris, Marzano, Fazel, & Hawton, 2013; Rich et al., 2005), and might attempt to access illicit or non-prescribed pharmaceutical substances while incarcerated. Withdrawal management is especially important when people are first arrested and held in custody, since withdrawal symptoms start manifesting themselves within hours of last use for many psychoactive drugs. Effective withdrawal management stabilizes the person and enhances their ability to self-manage behaviours and adapt to the challenging demands of being held in custody.

For effective withdrawal management, the first step in the process should be assessment at intake followed by appropriate monitoring. Assessment can include physical examination (e.g., vital signs, blood work) and substance use screening to identify relevant treatment pathways (Brands, 2000). This assessment is appropriate for any type of substance use issue, from opioids to cannabis. In fact, Rogerson, Jacups, and Caltabiano (2016) found cannabis withdrawal symptoms in 57% of offenders screened as currently using cannabis and concluded those who use cannabis should be monitored for symptoms of withdrawal, as this will maximize both offender and staff safety.

Withdrawal management alone is normally ineffective in the long term, if treatment is not continued after release (UNODC, n.d.). Withdrawal management should occur pre-release and include the provision of information related to maintaining sobriety, available services to address needs and referral to community treatment (Mitchell et al., 2009).

Cognitive Behavioural Therapy

Cognitive behaviour therapy (CBT) is a form of psychotherapy that alters negative thought patterns and corresponding actions (Beck, 2011). This approach acknowledges that behaviour might be based on underlying issues rather than rational thought. CBT targets these issues that might have developed based on previous experiences or environments (Schacter, Gilbert, & Wegner, 2010). In terms of rehabilitation for those involved in the criminal justice system, CBT can target criminogenic risk factors that lead to criminal thinking and behaviour. This therapy can include psycho-education, development of coping skills, strengthening of social support systems and fostering feelings of self-efficacy (Dowden, Antonowicz, & Andrews, 2003; Zlotnick, Johnson, & Najavits, 2009).

Summary of Research

CBT has been accepted as an effective treatment approach for offenders, parolees and probationers (Bahr, Masters, & Taylor, 2012). Based on meta-analyses and systematic reviews, research supports the effectiveness of CBT in reducing recidivism (Landenberger & Lipsey, 2005; Lipsey, Chapman, & Landenberger, 2001; Wilson, Bouffard, & MacKenzie, 2005) and PSU among individuals involved in the criminal justice system (Bahr et al., 2012; McMurran, 2007; Lanza & Menendez, 2013; Zlotnick et al., 2009). CBT was also found to improve outcomes when used in conjunction with other treatment approaches, such as contingency management (Bahr et al., 2012).

CBT can also be used in relapse prevention. Mindfulness-based relapse prevention integrates mindfulness practices with cognitive-behavioural relapse prevention, encouraging individuals to think about triggers and negative patterns related to substance use (Chawla et al., 2010). Use of mindfulness in the treatment of substance use can result in reduced substance use, improved

efficacy in coping with substance use and significant improvements in treatment attendance (Witkiewitz et al., 2014; Ritchie, Weldon, Freeman, MacPherson, & Davies, 2011; Uhlig, 2009).

Motivational Interviewing

Motivational Interviewing (MI), developed by Miller and Rollnick (1991, 2002), is a non-judgmental, non-confrontational approach designed to enhance intrinsic motivation to change behaviour by exploring and resolving ambivalence towards change. MI builds internal motivation to set positive behaviour change goals and to stay committed to maintaining them, for example, ceasing substance use. MI can be used to enhance therapeutic rapport, while CBT offers practical methods that alter thinking patterns and produce behaviour change. Used together, CBT and MI have been found to be effective in reducing substance use (Riper et al., 2014).

MI has been used in the criminal justice setting (e.g., probationers). The intervention helps the individual explore mixed feelings towards personal change (Miller & Rollnick, 2002) and can be most effective at a time when the participant has yet to recognize their need for change or is contemplating possible behaviour change.[15] MI can encourage someone to move from contemplation to action (Czuchry, Sia, & Dansereau, 2006). MI dialogue focuses on using reflective listening to evoke change talk in the client, so that the argument for change is produced by the client rather than foisted upon the person by the therapist (McMurran, 2009). This dialogue provides an opportunity for the individual to feel motivation to change coming from within, aligned with their personal goals, making it more likely for them to initiate and maintain these goals. Through this dialogue, the individual can recognize that continued PSU will result in negative consequences (Czuchry et al., 2006).

Summary of Research

Systematic reviews and meta-analyses have captured the effectiveness of MI in reducing substance use. An evidence review by Rubak, Sandboek, Lauritzen, and Christensen (2005) found that a majority of the included studies (72–75%) showed MI to have an effect on physiological and psychological diseases. The review concluded that "motivational interviewing in a scientific setting outperforms traditional advice giving in the treatment of a broad range of behavioural problems and diseases" (p. 306). Further evidence supports the view that MIs result in decreased substance use when paired with other interventions and increased likelihood of treatment success and greater community treatment engagement (McMurran, 2009; Czuchry et al., 2006; Easton, Swan, & Sinha, 2000). Of note, research also suggests that the relationship between MI and substance use might exist only in the short term (Miles, Duthiel, Welsby, & Haider, 2007; Baker et al., 2002; Bein, Miller, & Boroughs, 1993). Conversely, some studies have not found a relationship between improved substance use-related outcomes or criminal activity and MIs (Perry et al., 2015; Forsberg, Ernst, Sundqvist, & Farbring, 2011).

Contingency Management

Contingency management is a therapeutic intervention where rewards and punishments are used to instill behaviour change in an individual. For this approach to be effective, rewards (e.g., money) or punishments (e.g., jail time) must be relevant to the individual, immediate, to ensure the individual makes the link between the behaviour and the punishment or reward, and consistent, to ensure trust in the certainty and predictability of the punishment or reward (Lussier, Heil, Mongeon, Badger,

15 Pre-contemplation and contemplation are stages in the stages of change model. This model understands recovery from PSU as a series of stages, pre-contemplation where the individual is unaware they have a problem, through contemplation, where the individual knows they have a problem, to preparation and action, where they change their behaviour to resolve the problem (DiClemente, Schlundt, & Gemmell, 2004; Prochaska, DiClemente, & Norcross, 1992).

& Higgins, 2006). This intervention has been used in several populations, including probationers and those receiving treatment for PSU (Trotman & Taxman, 2011).

Summary of Research

Evidence shows that contingency management interventions lead to positive outcomes in terms of PSU (Lussier et al., 2006), but less research exists about its effectiveness in reducing recidivism or drug use among those who are involved in the criminal justice system. Of those studies that examine this context, many do so for the use of contingency management in drug treatment courts. Overall, it is challenging to measure the effect of contingency management in the drug court setting due to several possible confounding factors (e.g., high level of supervision, clinical services), but evidence does not show improvement in outcomes due to positive reinforcements[16] in this setting (Marlowe, Festinger, Dugosh, Arabia, & Kirby, 2008; Prendergast, Hall, Roll & Warda, 2008). Consequences in the form of jail sanctions were found to result in higher treatment retention, but only for those who received the sanction later in the program. Those who received it earlier were at a higher risk of treatment failure. This finding means that contingency management using an initial jail sanction might be more effective for participants who are less acclimatized to criminal justice penalties (Brown, Allison, & Nieto, 2011). Those who voluntarily attend outpatient treatment after incarceration might respond more favourably to this intervention: positive reinforcement reduced drug use and increased program retention for individuals who were not referred to treatment (DeFulio et al. 2013).

Peer-to-Peer Delivery

Peer-based interventions[17] are those in which former offenders who have integrated back into the community provide support or advice to individuals in a similar position. This support can include education about healthier choices and imparting wisdom based on their own experiences, which can help to facilitate rehabilitation or improvement in lifestyle (Patel, 2010). Research suggests the reintegration process should incorporate not only institutional relationships (e.g., parole officers and service providers), but also sponsors, mentors and volunteers inside and outside the correctional facility (Lyons & Lurigio, 2010). There are positive features of this intervention:

- Optimization of the ability of peers to connect with other offenders who might be resistant to intervention by professionals (Snow & Biggar, 2006; Zack, Bancroft, Blea, Comfort, & Grossman, 2004; Devilly, Sorbello, Eccleston, & Ward, 2005);
- The peers delivering the program might benefit from their participation as well (Snow & Biggar, 2006; Edgar, Jacobson, & Biggar, 2011); for example, feeling important, needed and helpful while this work reinforces their own commitment to change (Hornby, 2011);
- Benefits to the correctional system include effective use of resources (Daigle et al., 2007; Grinstead, Zack, Faigeles, Grossman, & Blea, 1999; Devilly et al., 2005) and the expansion of the range of health services available in the criminal justice system (Sirdifield et al., 2007);
- Interaction with peers who have successfully reintegrated to the community can provide offenders with a new identity and lifestyle (LeBel, Burnett, & Maruna, 2008); for example, instead of an "offender," he or she becomes an employee, student, father or volunteer. By joining peer groups, individuals become accountable to their peers and commit to following similar rules of behaviour. This accountability might alter their lifestyle for the better (Hornby, 2011); and

16 The positive reinforcement was in the form of voucher-based reinforcement (monetary, gift certificates or an opportunity to win a prize).

17 Peer-to-peer programming is not considered clinical treatment.

- Participation in peer programs increases community involvement and citizenship, and therefore reintegration, resulting in acceptance within the community (Bazemore & Boba, 2007; McDonough & Murphy, 2003).

Summary of Research

A systematic review of effectiveness and cost-effectiveness studies of peer interventions in correctional settings, including qualitative and quantitative synthesis conducted by Bagnall et al. (2015), yielded 57 studies. Of these studies, only two assessed the effectiveness of these programs on mental health and substance use. They found that peer-to-peer programming can change risky behaviours related to PSU (e.g., injecting drugs) and reduce substance use (Hunter & Power, 2002; Boisvert, Martin, Grosek, & Clarie, 2008). Being a peer worker is associated with improvement in mental health and its determinants, including a reduction in the likelihood of re-offending (Edgar et al., 2011), and improvements in self-esteem, self-worth, self-respect and confidence as a result of the role (Boothby, 2011; Blanchette & Eljdupovic-Guzina, 1998; CSC, 2009; Delveaux & Blanchette, 2000; Eamon, McLaren, Munchua, & Tsutsumi, 2012). One example of this programming is Alcoholics Anonymous, which might be effective in reducing alcohol use when initiated during incarceration (Johnson, Schonbrun, & Stein, 2014; Schonbrun et al., 2011). These effects could be related to the protective factor of having continuing support from institution to community (Smith et al., 2006; Malivert et al., 2012).

Other benefits of these interventions include new collaborations between criminal justice professionals and community members or institutions, shared responsibility between the behavioural health system and the community at large, and the allocation of more resources to the community (e.g., increased productivity of reintegrated offenders) (Rowe et al., 2009).

Therapeutic Communities

Therapeutic communities provide settings free of substances where individuals experiencing issues with substance use live together. This structured environment supports recovery and reintegration after release from incarceration (Vanderplasschen et al., 2007). Therapeutic communities can exist within the community, but have also been integrated into the institution as a treatment option for incarcerated offenders. Generally, institutionally based therapeutic communities have the following characteristics (Sacks, Chaple, Sacks, McKendrick, & Cleland, 2012; Butzin, O'Connell, Martin, & Inciardi, 2006; Hall, Prendergast, Wellisch, Patten, & Cao, 2004; Olson, Rozhon, & Powers, 2009):

- Facilities separate from the general offender population;
- Work release or working within the institution;
- Participation beginning at the end of an offender's incarceration sentence (e.g., last six months);
- Therapy, both group and individual;
- Relapse prevention;
- Treatment for mental health, anger management and other areas of well-being;
- Educational or vocational programming;
- Peer-led or peer-to-peer components;
- Release planning, transitional teams and access to aftercare; and
- Discipline or sanctions for non-compliance.

Therapeutic communities can be modified to address specific populations, such as female offenders (Hall et al., 2004; Sacks, McKendrick, & Hamilton, 2012) or those with predominantly mental health issues (Sullivan, McKendrick, Sacks, & Banks, 2007).

Summary of Research

According to a Cochrane Review, the evidence base for the effectiveness of therapeutic communities is limited: "There is little evidence that therapeutic communities offer significant benefits in comparison with other residential treatment, or that one type of therapeutic community is better than another. Prison therapeutic communities may be better than prison on its own… However, methodological limitations of the studies may have introduced bias and firm conclusions cannot be drawn due to limitations of the existing evidence" (Smith et al., 2006, p. 1).

Another review of evidence shows that participation in within-institution therapeutic communities can lead to improvements in social functioning (e.g., employment, psychological symptoms and family relations), time to relapse and drug use. Other positive impacts include reduced likelihood for recidivism, re-arrest and re-incarceration. That being said, participants scored worse on treatment retention and completion than controls, especially for longer and more intensive programs (Vanderplasschen et al., 2007). Within-institution therapeutic communities have also been found to lead to a cost savings compared to standard incarceration (Vanderplasschen et al., 2007; French et al., 2010).

Finally, evidence illustrates a positive effect for therapeutic communities operating within the community (Vanderplasschen et al., 2007). Post-release therapeutic communities have been found to reduce rates of re-incarceration and rates of drug misuse among participants, although these effects might be limited to the short term (Galassi, Mpofu, & Athanasou, 2015).

Pharmacotherapies

Pharmacotherapy is the use of medication to treat psychoactive drug dependence with the goal to detoxify an individual, prevent potential relapse or manage a dependency through prescribed psychoactive medication. Pharmacotherapies can be used in various stages throughout the criminal justice system with certain therapies posing a low risk in terms of overdose and developing PSU (e.g., buprenorphine/naloxone), while others carry significant overdose potential (e.g., methadone, slow-release oral morphine and diacetyl morphine). These medications have been found to reduce or lessen the severity of withdrawal symptoms during detoxification.

Pharmacotherapy can provide an important piece of substance use treatment, but is not a stand-alone solution (Wesson, 1997). This intervention is most effective when combined with other psycho-social treatments, such as counselling, and referral to other resources, such as medical and social services. These medications are not simply substitutions to illicit drug use, but allow for the individual to improve his or her functionality (e.g., occupational, social). This increases the chances of recovery and allows for a smoother transition into the community (NIDA, 2012).

A number of medications exist to treat substance dependence, including synthetic opioid agonists such as methadone, buprenorphine, naltrexone and vivitrol (injectable version of naltrexone) (NIDA, 2012). When taken orally, synthetic opioid agonists eliminate the effects of illicit opioids by blocking opioid receptors. Other forms exist as well, such as suboxone, a combination of buprenorphine and naloxone, which produces severe withdrawal effects if tampered with (e.g., if crushed and injected). Finally, vigabatrin is an antiepileptic that stops the release of dopamine and also prevents the behavioural effects of cocaine and alcohol dependence and withdrawal (Brodie et al., 2009). Opioid antagonists, such as naloxone are important because they can temporarily reverse the symptoms of opioid overdose. Another opioid antagonist, naltrexone, helps with urges to use a range of psychoactive

drugs, while serving as a blockade against opioid agonists, such as heroin and prescription opioids, including fentanyl and oxycodone.

Summary of Research

Pharmacotherapies used before and after incarceration facilitate a decrease in substance use, drug cravings, drug-positive urine tests and drug-related mortality (McKenzie et al., 2012, Coviello et al., 2012; Gryczynski et al., 2012; Brodie et al., 2009; Huang et al., 2011; Springer, Chen, & Altice, 2010). These therapies have been found to result in higher rates of abstinence from alcohol or opioid use compared to psychosocial treatment alone (Crits-Christoph, Lundy, Stringer, Gallop, & Gastfriend, 2015; Lee et al., 2016). Initiation of this treatment while incarcerated results in greater likelihood of treatment maintenance within the community (McKenzie et al., 2012; Gordon et al., 2014; Zaller, et al., 2013). This effect could be dependent on dosage, with a higher dosage resulting in better treatment continuity (Wickersham, Zahari, Azar, Kamarulzaman, & Altice, 2013). Finally, pharmacotherapies have also been found to reduce offender recidivism and re-incarceration (Garcia et al., 2007; Farrell-MacDonald, MacSwain, Cheverie, Tiesmaki, & Fischer, 2014; Coviello et al., 2012). Pharmacotherapies are also feasible and effective for use in remand facilities (Favrod-Coune et al., 2013), in withdrawal management (Wright et al., 2011) and in drug courts (Finigan, Perkins, Zold-Kilbourn, Parks, & Stringer, 2011).

Pharmacotherapies vary in their methods of administration, which must be taken into consideration when implementing. Administering pharmacotherapies in correctional institutions poses a risk in terms of the inappropriate distribution of these drugs among offenders. In some cases, incarcerated individuals might see value in the medication they are given and attempt to smuggle it to other offenders. To mitigate this possibility, institutions have implemented a variety of strategies to avoid diversion, including supervised intake and sanctions for non-compliance (Gordon et al., 2014).

Methodological Limitations

The research about treatment approaches had similar limitations as those covered in the System Components section, including lack of randomized controlled trials, weak control groups, self-reported outcome measures and short follow-up periods. Other barriers to evaluation include lack of data collection (e.g., peer-to-peer programming rarely collects such data, but instead bases success off anecdotal evidence) or lack of service availability or staff availability impeding evaluation.

Implementation Considerations

Implementation considerations vary based on approach, but all interventions mentioned above should be used in tandem with other interventions. Many of these are used in mandated treatment. This use might have implications for the nature of effective outcomes of such programming. Offenders with PSU who are mandated to receive treatment will face a penalty for non-completion. The goal of coercion is to reduce the likelihood of recidivism and relapse through increasing program participation (Bright & Martire, 2013). Although there is evidence supporting successful outcomes as a result of coercive treatment (Broner, Mayrl, & Landsberg, 2005), there are also concerns about the impact on program completion rates and the validity of observed behaviour change (Coviello et al., 2012). Further to this, treatment for PSU is considered medical care. Mandating medical care infringes on the human rights of informed consent, ability to withdraw from care, non-discrimination in health care and freedom from interference (Lunze, Idrisov, Golichenko, & Kamarulzaman, 2016).

Effective implementation of treatment approaches also requires sufficient expertise. Although practitioner training can be a starting point for implementation of evidence-informed treatment practices, effective implementation often requires a lengthy experience of practicing these approaches

in the field. As AOPSU Working Group members noted, these approaches require staff to continually use the skills needed for these approaches, maintain up-to-date training and undergo review by supervisors who have experience in these practices.

Conclusions

There is strong evidence supporting the use of the above approaches to reduce substance use and recidivism (depending on the intervention). Assessment should inform which approaches should be incorporated into an offender's treatment plan and maintained after release.

Key Considerations

- Increase access to withdrawal management services throughout the criminal justice system. This access should include assessment at intake, appropriate supervision from a trained healthcare professional and planning for withdrawal management.
- CBT should be used throughout the criminal justice system (e.g., institutions, parole and probation) as well as in relapse prevention to aid with coping efficacy.
- MI should be used as a means to instigate change, in conjunction with other interventions (e.g., pharmacotherapies). Allow staff trained in this approach the opportunity to practice these skills and ensure there is time allotted for supervised training in the field.
- Contingency management can be considered for use with participants in drug courts who are less acclimatized to criminal justice penalties and for those who voluntarily partake in outpatient treatment.
- Peer-to-peer programming should be included as an additional support for those involved in the criminal justice system. More research is needed about the effect of this intervention on PSU.
- Pharmacotherapies are recommended for use throughout the system. These should be used in conjunction with other treatment approaches. It is crucial that continuity of care is maintained.
- Increase access to pharmacotherapies in rural and remote areas. Consideration of alternative options (e.g., injectable forms) might increase availability.

Discussion

This environmental scan sought to provide key evidence for the successful reintegration of individuals involved in the criminal justice back into the community by addressing their PSU. Much research exists about best practices for those dealing with PSU. Similarly, there is a great availability of evidence about the successful integration of those involved in the criminal justice system. It is apparent from this comprehensive evidence summary that key areas for improvement can be explored. There are also considerations for effective treatment and programming for this population that warrant attention.

Specifically, as was highlighted in the research, those involved in the criminal justice system often have diverse needs that need to be addressed to ensure their successful reintegration. Programming should be tailored to account for an individual's culture and gender, as well as any history of trauma. This tailoring includes providing PSU intervention options that reflect cultural background, accommodating circumstances specific to gender (e.g., childcare needs) and acknowledging that incarceration might trigger past trauma. With this in mind, it is important that programs addressing PSU are designed to be flexible to meet these needs. Practitioners should be aware that a "one size fits all" approach to managing PSU will not be effective for all criminal justice involved individuals.

To ensure these needs are taken into consideration, a risk/needs assessment should be conducted as early in the justice process as possible. Using these results, appropriate supports, such as treatment for PSU, should be provided to the individual through ongoing case management. Similarly, release planning for those sentenced to incarceration should begin as soon as assessment results are available. Repeating an assessment regularly will ensure that the individual's changing needs related to PSU are accommodated and help to monitor progress along the individual's case plan.

The scan provided several options for diverting non-violent offenders. These alternative options to incarceration can be considered as early on as the arrest period. If diversionary programs are being examined for implementation, it is important to ensure community services can handle an influx of referrals as this capacity is often lacking in the community.

Continuity of care is frequently a gap in addressing PSU in the criminal justice system. Evidence supports the need to provide services and treatment while an individual is incarcerated, which continue after release. This continuity can maintain any gains made in addressing PSU and can help facilitate a smooth transition into the community. Providing coordinated or integrated post-release services can increase the individual's ability to access needed supports. Furthermore, those working in the correctional system should maintain open communication with those working in the community so they can keep up to date on what services are available and communicate information about incoming offenders. This communication is facilitated when partnership agreements are made between correctional settings and community service organizations.

This scan provided several examples of evidence-informed treatment approaches. These included provision of withdrawal management services, pharmacotherapies, peer support programs and psycho-social interventions such as case management, CBT and MI. These approaches should be used in tandem to ensure optimal success. It was apparent from AOPSU Working Group and key informant feedback that abstinence conditions at the outset might not be realistic for the parole population. Instead, lapses can be an opportunity to reflect and should not result in violations or removal from a program.

Finally, research is needed to further improve the reintegration of those involved in the criminal justice system. Currently, data collection about this population, and correctional and community

programming is lacking. Because of this gap, it is challenging to conduct evaluations of program effectiveness. Strong data collection can ensure interventions are effectively addressing PSU and can also help to illustrate the importance of funding such programming. It would be beneficial to better understand why some individuals are better suited to certain programs while other individuals are not. Understanding the characteristics of successful and unsuccessful participants could help ensure interventions are targeted with appropriate alternatives provided.

Limitations

Some limitations associated with this scan have implications for the interpretation of results. It should be noted that the broad scope of the topic made it challenging to include all available research. Although the search terms were designed to yield comprehensive results, there are a number of resources, such as government documents, that might not be available through search engines that access peer-reviewed journals. Similarly, inclusion criteria might not have picked up relevant articles that did not contain the key words used for this scan.

These evaluations were conducted in specific environments, with certain populations and varying contexts, which means findings might not be generalizable across all jurisdictions and programs. Specifically, there was a lack of peer-reviewed studies conducted in Canada. This lack meant that the above key considerations were based on findings that might derive from different economic, political and legal contexts. With that in mind, it is important that research is conducted within the Canadian correctional population to ensure effectiveness.

Some of the evaluations included in this scan had follow-up periods that ranged from a few weeks to a few years after the intervention. Because of the short follow-up periods, it is difficult to state definitively if behaviour change due to program participation was permanent.

Conclusion

Although great gains have been made in better understanding PSU among those involved in the criminal justice system, this progress has not resulted the widespread implementation of evidence-informed practices to support successful reintegration. It is apparent that PSU is not consistently addressed throughout the system or by community service providers, which makes it a barrier to reintegration and a persisting factor in recidivism. This results in issues beyond relapse, including difficulties acquiring employment or housing, as well as family dysfunction and interpersonal conflict.

Better management of individuals involved in the criminal justice system could help ensure that PSU does not contribute to re-arrest and re-incarceration. For instance, early and consistent risk and needs assessment and release planning, paired with evidence-informed treatment approaches applied pre-sentencing, during incarceration, throughout supervision and after release in the community, could meet this end. Similarly, acknowledgement of diversity among this population as well as past health and trauma histories can ensure the individual is connected to appropriate services and programs. More research is needed about programs that effectively address the needs of this population, as well as how to best gauge service availability in the community. It is hoped that the results of this scan will help guide jurisdictions in building service capacity (e.g., professional development), and in selecting programming to pursue or implement that effectively addresses PSU. These results can help inform government and policy in terms of funding allocations and future research.

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Appendix A: Addressing Offenders' Problematic Substance Use (AOPSU) Working Group Members

Co-chairs[18]

Dennis Cooley, Saskatchewan Ministry of Justice

Rebecca Jesseman, Canadian Centre on Substance Use and Addiction

Kim Sanderson, Alberta Correctional Services

John Weekes, Correctional Service of Canada

Members[19]

Allen Benson, Native Counselling Services of Alberta

Tammy Cabana Ryan, Correctional Service of Canada

Mary Deleary, Thunderbird Partnership Foundation

Colleen Dell, University of Saskatchewan

Anita Desai, St. Leonard's Society of Canada

Lisha Di Gioacchino, Canadian Centre on Substance Use and Addiction

Stephanie Hamell, Correctional Service of Canada

Catherine Latimer, John Howard Society of Canada

Anna McKiernan, Canadian Centre on Substance Use and Addiction

George Myette, 7th Step Society of Canada

Diane Rothon, Medical Director, British Columbia Corrections

Wayne Skinner, Centre for Addiction and Mental Health

[18] We would like to thank Curtis Clarke for his contribution as a former co-chair of the AOPSU Working Group.

[19] We would like to thank Elizabeth White for her contribution as a former member of the AOPSU Working Group.

Appendix B: Search Strategy

First Wave

PubMed

((((((((("pre-release"[Title]) OR "post-release"[Title]) OR "post-incarceration"[Title]) OR transition*[Title]) OR "pre release"[Title]) OR "post release"[Title]) OR "post incarceration"[Title])) AND ((prisoner*[Title]) OR offender*[Title]))) OR (("Prisoners"[Mesh]) AND (("Substance-Related Disorders/prevention and control"[Mesh] OR "Substance-Related Disorders/rehabilitation"[Mesh] OR "Substance-Related Disorders/therapy"[Mesh]))) Filters activated: Abstract, published in the last 10 years.

(((((("re-entry"[Title/Abstract]) OR reentry[Title/Abstract]) OR release[Title/Abstract])) OR "Aftercare"[Mesh])) AND "Prisoners"[Mesh]) AND (("Substance-Related Disorders/prevention and control"[Mesh] OR "Substance-Related Disorders/rehabilitation"[Mesh] OR "Substance-Related Disorders/therapy"[Mesh])) Filters activated: Abstract, published in the last 10 years.

PsycINFO

(((IndexTermsFilt:("Parole") OR IndexTermsFilt:("Probation"))) AND ((IndexTermsFilt:("Alcohol Abuse") OR IndexTermsFilt:("Alcohol Rehabilitation") OR IndexTermsFilt:("Alcoholics Anonymous") OR IndexTermsFilt:("Alcoholism") OR IndexTermsFilt:("Binge Drinking") OR IndexTermsFilt:("Drug Abuse") OR IndexTermsFilt:("Drug Addiction") OR IndexTermsFilt:("Drug Dependency") OR IndexTermsFilt:("Drug Rehabilitation") OR IndexTermsFilt:("Relapse Prevention")))) OR ((((IndexTermsFilt:("Incarceration") OR IndexTermsFilt:("Prisons"))) AND ((IndexTermsFilt:("Aftercare") OR IndexTermsFilt:("Institutional Release")))) AND ((IndexTermsFilt:("Alcohol Abuse") OR IndexTermsFilt:("Alcohol Rehabilitation") OR IndexTermsFilt:("Alcoholics Anonymous") OR IndexTermsFilt:("Alcoholism") OR IndexTermsFilt:("Binge Drinking") OR IndexTermsFilt:("Drug Abuse") OR IndexTermsFilt:("Drug Addiction") OR IndexTermsFilt:("Drug Dependency") OR IndexTermsFilt:("Drug Rehabilitation") OR IndexTermsFilt:("Relapse Prevention")))) OR (((Title:("post-incarceration") OR Title:("post incarceration") OR Title:("re-entry") OR Title:(reentry) OR Title:(release)) OR (Title:(probation*) OR Title:(parole*))) AND (Title:(substance) OR Title:(drug*) OR Title:(dependen*) OR Title:(methadone))) AND Year: 2005 TO 2015 AND Peer-Reviewed Journals Only

Second Wave

Risk Assessment

PsycNET

Title:("risk assessment") OR Abstract:("risk assessment")) OR Index Term:("Risk Assessment")))) AND (Title:(tool*) OR Abstract:(tool*)) AND Year: 2012 To 2015 AND Peer-Reviewed Journals only

PubMed

(("Crime"[Mesh]) AND "risk assessment"[Title/Abstract]) AND ((tool*[Title/Abstract]) OR instrument*[Title/Abstract]) Filters activated: Abstract, Humans, English.

Cochrane Library

"risk assessment tool*"

"risk assessment instrument*"

Health Evidence:

"risk assessment tool*"

"risk assessment instrument*"

Centre for Reviews and Dissemination:

"risk assessment tool*"

"risk assessment instrument*"

Project Cork:

Topic = "risk assessment tool*" AND Year = 2012-2015

Topic = "risk assessment instrument*" AND Year = 2012-2015

Diversion Programs

PsycNET

Abstract:("court-mandated")) AND Abstract:(drug*) OR Abstract:(substance))) OR Abstract:("diversion program*") OR Abstract:("drug treatment court*") OR Abstract:("drug court"))) OR (((Index Term:("Adjudication") OR Index Term:("Court Referrals") OR Index Term:("Criminal Conviction") OR Index Term:("Criminal Justice") OR Index Term:("Criminal Rehabilitation") OR Index Term:("Distributive Justice") OR Index Term:("Juvenile Justice") OR Index Term:("Social Justice"))) AND Index Term:("Addiction") OR Index Term:("Alcohol Abuse") OR Index Term:("Alcohol Rehabilitation") OR Index Term:("Alcoholism") OR Index Term:("Drug Abuse") OR Index Term:("Drug Addiction") OR Index Term:("Drug Dependency") OR Index Term:("Drug Rehabilitation") OR Index Term:("Inhalant Abuse") OR IndexTermsFilt:("Polydrug Abuse")))) AND Year: 2005 To 2015 AND Peer-Reviewed Journals only

PubMed

((((diversion program*[Title/Abstract]) OR drug court*[Title/Abstract]) OR drug treatment court*[Title/Abstract])) OR ((("Substance-Related Disorders"[Mesh]) AND ((("Program Evaluation"[Mesh]) OR "Treatment Outcome"[Mesh]) OR "Comparative Study" [Publication Type]) OR "Randomized Controlled Trial" [Publication Type])) AND "Jurisprudence"[Mesh]) Filters activated: Abstract, published in the last 10 years, Humans, English.

Project Cork:

Title = diversion AND Year = 2005-2015

Title = drug AND Title = court* AND Year = 2005-201

Remand

PsycNET

Title:(detention)) OR Title:(custody)) OR Title:(detainee*) OR Abstract:(detainee*)) OR Title:(remand) OR Abstract:(remand))) AND ((Index Term:("Addiction") OR Index Term:("Alcohol Abuse") OR Index

Term:("Alcohol Rehabilitation") OR Index Term:("Alcoholism") OR Index Term:("Detoxification") OR Index Term:("Drug Abuse") OR Index Term:("Drug Addiction") OR Index Term:("Drug Dependency") OR Index Term:("Drug Rehabilitation") OR Index Term:("Inhalant Abuse") OR IndexTermsFilt:("Polydrug Abuse"))) AND Year: 2005 To 2015

PubMed

(((((detention[Title]) OR custody[Title]) OR detainee*[Title/Abstract]) OR remand[Title/Abstract])) AND "Substance-Related Disorders"[Mesh] Filters activated: Abstract, published in the last 10 years, Humans, English.

Project Cork

Title = remand OR Title = detention OR Title = detainees OR Title = custody AND Year = 2005-2015

Third Wave

Wrap Around and Hub and Spoke

PubMed

June 29, 2016 (15 results, kept 2)

(((((((((offender*[Title/Abstract]) OR criminal*[Title/Abstract]) OR prison*[Title/Abstract]) OR inmate*[Title/Abstract]) OR jail*[Title/Abstract]) OR incarcerat*[Title/Abstract])) OR (("Prisons"[Mesh]) OR "Prisoners"[Mesh]))) AND (((((("hub[Title/Abstract] AND spoke"[Title/Abstract])) OR ("hubs[Title/Abstract] AND spokes"[Title/Abstract])) OR wraparound[Title/Abstract]) OR "wrap around"[Title/Abstract])

PsycNet

June 29, 2016 (38 results, kept 3)

Title:("hub and spoke") OR Abstract:("hub and spoke") OR Title:("hubs and spokes") OR Abstract:("hubs and spokes") OR Title:(wraparound) OR Abstract:(wraparound) OR Title:("wrap around") OR Abstract:("wrap around")) AND ((Title:(offender*) OR Abstract:(offender*) OR Title:(criminal*) OR Abstract:(criminal*) OR Title:(prison*) OR Abstract:(prison*) OR Title:(inmate*) OR Abstract:(inmate*) OR Title:(jail*) OR Abstract:(jail*) OR Title:(incarcerat*) OR Abstract:(incarcerat*)) OR Index Terms:("Correctional Institutions") OR Index Terms:("Prisoners") OR Index Terms:("Prisons") OR Index Terms:("Reformatories"))))

Relapse Prevention

PubMed

June 21, 2016: 378 results, kept 21

((((recidivi*[Title/Abstract]) OR relaps*[Title/Abstract])) AND (((((((offender*[Title/Abstract]) OR criminal*[Title/Abstract]) OR prison*[Title/Abstract]) OR inmate*[Title/Abstract]) OR jail*[Title/Abstract])) OR (("Prisons"[Mesh]) OR "Prisoners"[Mesh]))) AND ((((((((((substance[Title/Abstract]) OR addict*[Title/Abstract]) OR dependent[Title/Abstract]) OR dependence[Title/Abstract]) OR alcohol*[Title/Abstract]) OR cannabis[Title/Abstract]) OR drug*[Title/Abstract]) OR marijuana[Title/Abstract])) OR ((((("Alcohol Drinking"[Mesh]) OR "Marijuana Smoking"[Mesh])) OR "Substance-Related Disorders"[Mesh])) Filters: Abstract; published in the last 10 years; Humans; English

PsycNET

June 21, 2016: 251 results, kept 31

Title:(offender*) OR Abstract:(offender*) OR Title:(criminal*) OR Abstract:(criminal*) OR Title:(prison*) OR Abstract:(prison*) OR Title:(inmate*) OR Abstract:(inmate*) OR Title:(jail*) OR Abstract:(jail*) OR Title:(incarcerat*) OR Abstract:(incarcerat*)) OR Index Term:("Correctional Institutions") OR Index Term:("Prisoners") OR Index Term:("Prisons") OR Index Term:("Reformatories")))) AND Title:(relaps*) OR Abstract:(relaps*)) OR Index Term:("Relapse Prevention")))) AND (((Index Term:("Amphetamine") OR Index Term:("CNS Stimulating Drugs") OR Index Term:("Cocaine") OR Index Term:("Crack Cocaine") OR Index Term:("Drug Dependency") OR Index Term:("Heroin") OR Index Term:("Heroin Addiction") OR Index Term:("Intravenous Drug Usage") OR Index Term:("Methamphetamine") OR Index Term:("Methylenedioxymethamphetamine") OR Index Term:("Polydrug Abuse"))) OR Any Field:((Title:(substance) OR Title:(drinking) OR Title:(alcohol) OR Title:(drug*) OR Title:(cannabis) OR Title:(marijuana) OR Abstract:(substance) OR Abstract:(drinking) OR Abstract:(alcohol) OR Abstract:(drug*) OR Abstract:(cannabis) OR Abstract:(marijuana))) OR Any Field:Index Term:("Addiction") OR Index Term:("Alcohol Drinking Patterns") OR Index Term:("Alcoholism") OR Index Term:("Drug Abuse") OR Index Term:("Drug Addiction") OR Index Term:("Drug Usage") OR Index Term:("Intravenous Drug Usage") OR Index Term:("Marijuana Usage") OR IndexTermsFilt:("Substance Use Disorder")))) OR Abstract:(addiction*) OR Title:(addiction*))) AND Year: 2006 To 2016

Cognitive Behavioural Therapy (CBT)

PubMed

June 24, 2016 (32 results, kept 3)

((((((((((offender*[Title/Abstract]) OR criminal*[Title/Abstract]) OR prison*[Title/Abstract]) OR inmate*[Title/Abstract]) OR jail*[Title/Abstract]) OR incarcerat*[Title/Abstract])) OR (("Prisons"[Mesh]) OR "Prisoners"[Mesh]))) AND ((((((((((substance[Title/Abstract]) OR addict*[Title/Abstract]) OR dependent[Title/Abstract]) OR dependence[Title/Abstract]) OR alcohol*[Title/Abstract]) OR cannabis[Title/Abstract]) OR drug*[Title/Abstract]) OR marijuana[Title/Abstract])) OR ((("Alcohol Drinking"[Mesh]) OR "Marijuana Smoking"[Mesh])) OR "Substance-Related Disorders"[Mesh]))) AND (((((("cognitive therapy"[Title/Abstract]) OR "cognitive behavioural therapy"[Title/Abstract]) OR "cognitive behavioral therapy"[Title/Abstract])) OR "Cognitive Therapy"[Mesh]) Filters: Review; Meta-Analysis; Systematic Reviews

PsycNET

June 27, 2016 (8 results, kept 2)

Index Term:("Amphetamine") OR Index Term:("CNS Stimulating Drugs") OR Index Term:("Cocaine") OR Index Term:("Crack Cocaine") OR Index Term:("Drug Dependency") OR Index Term:("Heroin") OR Index Term:("Heroin Addiction") OR Index Term:("Intravenous Drug Usage") OR Index Term:("Methamphetamine") OR Index Term:("Methylenedioxymethamphetamine") OR Index Term:("Polydrug Abuse"))) OR Any Field:Title:(substance) OR Title:(drinking) OR Title:(alcohol) OR Title:(drug*) OR Title:(cannabis) OR Title:(marijuana) OR Abstract:(substance) OR Abstract:(drinking) OR Abstract:(alcohol) OR Abstract:(drug*) OR Abstract:(cannabis) OR Abstract:(marijuana))) OR Any Field:Index Term:("Addiction") OR Index Term:("Alcohol Drinking Patterns") OR Index Term:("Alcoholism") OR Index Term:("Drug Abuse") OR Index Term:("Drug Addiction") OR Index Term:("Drug Usage") OR Index Term:("Intravenous Drug Usage") OR Index Term:("Marijuana Usage") OR Index Term:("Substance Use Disorder")))) OR Abstract:(addiction*) OR Title:(addiction*))) AND

((Title:(offender*) OR Abstract:(offender*) OR Title:(criminal*) OR Abstract:(criminal*) OR Title:(prison*) OR Abstract:(prison*) OR Title:(inmate*) OR Abstract:(inmate*) OR Title:(jail*) OR Abstract:(jail*) OR Title:(incarcerat*) OR Abstract:(incarcerat*)) OR Index Term:("Correctional Institutions") OR Index Term:("Prisoners") OR Index Term:("Prisons") OR Index Term:("Reformatories")))) AND ((Title:("cognitive therapy") OR Abstract:("cognitive therapy") OR Title:("cognitive therapies") OR Abstract:("cognitive therapies") AND Title:("cognitive behavioral therapy") OR Abstract:("cognitive behavioral therapy") OR Title:("cognitive behavioral therapies") OR Abstract:("cognitive behavioral therapies") OR Title:("cognitive bahavioural therapy") OR Abstract:("cognitive bahavioural therapy") OR Title:("cognitive bahavioural therapies") OR Abstract:("cognitive bahavioural therapies")) OR Index Term:("Cognitive Behavior Therapy")))) AND Methodology: Literature Review OR Systematic Review OR Meta Analysis

Detoxification

PubMed

June 16, 2016: 117 results, kept 12

(((((detox*[Title/Abstract]) OR withdrawal*[Title/Abstract])) OR "Alcohol Withdrawal Delirium"[Mesh])) AND (((((((offender*[Title/Abstract]) OR criminal*[Title/Abstract]) OR prison*[Title/Abstract]) OR jail*[Title/Abstract]) OR inmate*[Title/Abstract])) OR (("Prisons"[Mesh]) OR "Prisoners"[Mesh]))
Filters: published in the last 10 years; Humans; English

PsycNET

June 16, 2016, 162 results, kept 11

Title:(incarcerat*) OR Abstract:(incarcerat*) OR Title:(offender*) OR Abstract:(offender*) OR Title:(criminal*) OR Abstract:(criminal*) OR Title:(prison*) OR Abstract:(prison*) OR Title:(jail*) OR Abstract:(jail*) OR Title:(inmate*) OR Abstract:(inmate*)) OR Index Term:("Correctional Institutions") OR Index Term:("Prisoners") OR Index Term:("Prisons") OR Index Term:("Reformatories")))) AND ((Title:(detox*) OR Abstract:(detox*) OR Title:(withdrawal*) OR Abstract:(withdrawal*)) OR Index Term:("Detoxification")))) AND Year: 2006 To 2016 AND Peer-Reviewed Journals only

Google Scholar

June 16, 2016

allintitle: detoxification prison (3 results: 2 grey lit, 1 duplicate)

allintitle: detoxification prisoner (0 results)

allintitle: detoxification prisoners (1 result: 1 duplicate)

allintitle: detoxification inmate (0 results)

allintitle: detoxification inmates (0 results)

allintitle: withdrawal inmates (5 results: 2 kept, 1 duplicate)

allintitle: withdrawal inmate (0 results)

allintitle: withdrawal prison (3 results: 2 duplicates)

allintitle: withdrawal prisons (1 result: 1 kept)

allintitle: withdrawal prisoner (1 result: 0 kept)

allintitle: withdrawal prisoners (0 results)

Motivational Interviewing

PubMed

June 28, 2016 (10 results, kept 1)

(((((((((offender*[Title/Abstract]) OR criminal*[Title/Abstract]) OR prison*[Title/Abstract]) OR inmate*[Title/Abstract]) OR jail*[Title/Abstract]) OR incarcerat*[Title/Abstract])) OR (("Prisons"[Mesh]) OR "Prisoners"[Mesh]))) AND (("motivational interviewing"[Title/Abstract]) OR "Motivational Interviewing"[Mesh]) Filters: Meta-Analysis; Review; Systematic Reviews

PsycNET

June 28, 2016 (5 results, kept 2)

Title:(offender*) OR Abstract:(offender*) OR Title:(criminal*) OR Abstract:(criminal*) OR Title:(prison*) OR Abstract:(prison*) OR Title:(inmate*) OR Abstract:(inmate*) OR Title:(jail*) OR Abstract:(jail*) OR Title:(incarcerat*) OR Abstract:(incarcerat*)) OR Index Term:("Correctional Institutions") OR Index Term:("Prisoners") OR Index Term:("Prisons") OR Index Term:("Reformatories")))) AND ((Title:("motivational interviewing") OR Abstract:("motivational interviewing")) OR Index Term:("Motivational Interviewing")))) AND Methodology: Literature Review OR Systematic Review OR Meta Analysis

Cochrane Library

June 28, 2016 (4 results, 1 duplicate)

#1 Offender:ti,ab,kw or criminal:ti,ab,kw or prison:ti,ab,kw or jail:ti,ab,kw or incarceration:ti,ab,kw (Word variations have been searched)

#2 "motivational interviewing":ti,ab,kw (Word variations have been searched)

#3 #1 and #2

Correctional Transition Teams

PubMed

June 17, 2016: 25 results, kept 2

("transition team"[Title/Abstract]) OR "transition teams"[Title/Abstract]

PsycNET

June 17, 2016: 56 results, kept 1

Title : " transition team" OR Abstract : " transition team" OR Title : " transition teams" OR Abstract : " transition teams"

Author : { Hartwell, Stephanie} (9 results, kept 0)

Google Scholar: June 17, 2016

"transition team" corrections "substance abuse" (350 results, kept 0))

allintitle: "transition team" (107 results, kept 0)

National Criminal Justice Reference Service: June 20, 2016

“transition team” (82 results, kept 0)vis