Preliminary Validation of the Community Supervision Decision-Making Framework

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COMMUNITY SUPERVISION PROGRAMS in Canada, like those of the United States, are designed to foster law-abiding behavior and to reintegrate individuals into the community following incarceration (Correctional Services Canada [CSC], 2019a). Individuals may be supervised in the community by Community Service Officers (CSOs) while they are on probation or conditional release (i.e. parole), where they serve the duration of their sentence in the community in lieu of custody. The number of individuals under community supervision in Canada has held steadily high for years, with almost 100,000 supervised in the community (Public Safety Canada, 2020), a majority of whom are on probation. In the United States, according to the Bureau of Justice Statistics, there remain just under 4.4 million adults under community supervision in the 50 states and Washington, D.C. (Oudekerk & Kaeble, 2021). Presented differently, this represents 1 in 59 adults in the U.S. who report to probation or parole officers and must abide by certain supervision conditions to avoid incarceration. Probation is over-represented, accounting for about 80 percent of those under community supervision, compared to parolees who represent the remaining 20 percent. Further, the Council of State Governments (2019) has reported that technical violations account for nearly one quarter of all state prison admissions, at an annual cost of $2.8 billion dollars. Clearly this is an area requiring further study.

Current Decision-Making Practices

In order to manage risk, CSOs are tasked with making decisions at key points in community supervision (Center for Effective Public Policy, 2017). Minor violations, such as missing an appointment or breaking curfew, may be overlooked. However, serious events warrant a formal response to mitigate potential threats to public safety (Klingele, 2013; Taxman et al., 1999). Discretionary decision-making has come under criticism as "unguided" (Klingele, 2013).

Violations of supervision conditions are met with a variety of sanctions that vary due to CSO discretion (Klingele, 2013). Increasingly, jurisdictions in North America are employing structured decision-making to standardize decision-making in community supervision practice. In the United States, at least five states have employed decision-making frameworks to standardize responses to community supervision violations by CSOs and judges (e.g., Iowa Behavioral Response Matrix and Missouri Offender Management Matrix). These approaches are well considered and tend to include factors of risk level in combination with the type and seriousness of the violation in guiding decision-making.

A new model, developed on theory and practice, was developed to standardize decision-making in community supervision practice by focusing CSO attention on factors that play an important role in an individual's success on supervision beyond risk level and violation seriousness alone.

Community Supervision Decision-Making Framework

The Community Supervision Decision-Making Framework (CSDF; Serin, 2021) is a structured professional judgment tool designed to guide CSOs' decision-making in response to supervision violations by accounting for factors that empirically relate to success on supervision. It includes eight factors designed to be rated as Mitigating, Neutral, or Problematic. CSOs can use a holistic analysis of these ratings to guide their response strategy for violations. See Figure 1, next page.

Decision Event

Individuals on community supervision must follow conditions set forth by the courts or CSO. These conditions may be standard (e.g., curfew, regular meetings with CSO, no criminal activity) or specific to risk management for that individual (e.g., substance abuse treatment). CSOs must assess the type and seriousness of a violation in order to determine the appropriate response. A key consideration is whether the event was serious in nature and whether it was related to

the individual's previous pattern of criminal behavior (i.e., offense analogous). The more similar the event is to the offenders' prior criminality, the more directive action required by the CSO (Gordon & Wong, 2011).

Current Risk

There are various standardized risk scales used to predict the likelihood that an individual will commit a crime after release. This can be an important indicator of an individual's risk, relative to that of others with similar characteristics and criminal histories (Monahan & Skeem, 2016). Actuarial risk assessment is limited, however, in that it is designed to provide group-level prediction of risk, and many of these risk assessments primarily rely on static, historical factors. In order to assess a specific individual's risk, other factors beyond risk assessment should also be considered, as described below.

Response to Community Supervision

Within the context of community supervision, an individual demonstrating current or previous noncompliance with supervision conditions can indicate greater risk for future failure on supervision (Hanson, Harris, Scott, & Helmus, 2007; Honegger & Honegger, 2019). Honegger and Honegger (2019) found that participants with prior probation or parole violations were rearrested 1.49 times more than offenders without this history. An offender can be seen as problematic if the offender commits multiple minor violations or a few serious violations. The type and context of previous violations is also important. Minor violations relating to the individual's struggle with transportation from work to meet curfew would be less indicative of future risk of criminal behavior than violations due to drug possession.

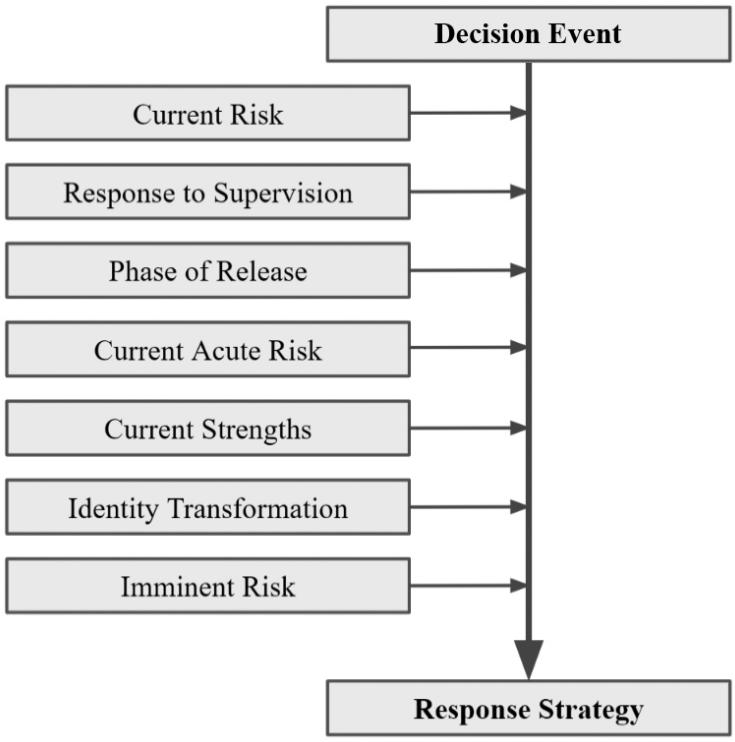
Phase of Release

The months at the start of the community supervision sentence are the most important for implementing appropriate programs to prevent reoffending (Berecochea, Himelson, & Miller, 1972), as the largest percentage of community supervision failures happen in the first six months after release (Brown, St. Amand, & Zamble, 2009; Gray, Fields, & Maxwell, 2001; Rydberg & Grommon, 2016).

Current Acute Risks

Acute risk factors are defined as dynamic risk factors that change quickly (e.g., hours), such as negative affect, and are related to the timing of recidivism (Hanson & Harris, 2000). Research by Lowenkamp and colleagues (2016) examined the relationship between acute risk factors and recidivism. They found that offenders with greater anger, victim access, and negative mood increased the likelihood of a violent rearrest by 26 percent, 25 percent, and 9 percent, respectively. More recently, Stone et al. (2021) demonstrated that acute risk factors are related to the likelihood and imminence of recidivism; higher acute scores increase the likelihood of and decrease the time to violent failure.

FIGURE 1
Community Supervision Decision-Making Framework



Current Strengths

Strength factors are features of an individual that are consistent with non-offending and prosocial behavior (DeLisi, Drury, & Elbert, 2021). Strengths may indicate reduced likelihood of criminal behavior. These factors can either be external (e.g., employment, prosocial relationships) or internal (e.g., motivation to change; Serin, 2021). Strengths can be predictors of successful community supervision completion (Brown et al., 2020, Evans, Jaffe, Urada, & Anglin, 2011; DeLisi et al., 2021; Wanamaker & Brown, 2021). Evans and colleagues (2011) found that strengths, such as greater education, employment, and social support were related to a higher likelihood of success on community supervision. In addition, a more recent study examining the characteristics of compliant community supervision clients found that individuals with no drug history had a 793 percent increase in odds for successful completion of supervision (DeLisi et al., 2021).

Identity Transformation

When offenders start to realize that being involved in crime is more harmful than beneficial, their identity changes slowly to be more law-abiding (Bachman et al., 2016; Maruna, 2010). The Identity Theory of Criminal Desistance states that a change in an offender's identity sets off other types of changes that reorder preferences for a more prosocial life (Paternoster & Bushway, 2009). Bachman et al. (2016) examined the role of identity change in desistance from crime by following serious drug offenders after they were released from prison. They found the majority of the offenders who successfully desisted from crime (80 percent) had transformed to a non-offender identity (Bachman, Kerrison, Paternoster, & O'Connell, 2016).

Imminent Risk

Imminent short-term risk is important to consider in predicting the timing of a serious event occurring during supervision. Acute risk factors, described previously, are considered the most important predictors of imminent risk, as they can change within a short period of time (e.g., hours, days; Hanson & Harris, 2000; Stone et al., 2021). Acute risk factors focus on short-term instability that could relate to increased risk of failure. Imminent risk specifically flags behaviors present in an individual that are consistent with their previous criminal behavior and may indicate imminent risk of re-offense. Determining imminent risk requires an analysis by the CSO of the individual's previous pattern of criminal thinking and behavior, escalation of problematic behavior, and absence of strengths to mitigate risk.

Response Strategy

When an offender commits a violation while on community supervision, the CSO has the responsibility of recommending proper sanctions to correct problematic behavior, but also to mitigate against risk and to address public safety concerns. Sanctions are defined as punishments decided by the CSO or the court as a response to a client's noncompliant behavior on community supervision, but do not involve revocation (i.e., reinstating a suspended sentence; Klingele, 2013; Taxman, Soule, & Gelb, 1999).

The latitude available to CSOs in how to respond to violations depends upon the policies of that jurisdiction. Hence, a decision framework is an important tool to guide decision-making with an evidence-based approach that promotes standardization across CSOs. The CSDF is in the pilot phase of development. It includes empirically supported factors that relate to recidivism and a rating system for each factor. Currently there are no guidelines for how CSOs use the tool to make decisions. The present research is a pilot study to examine whether the instrument predicts violent failure on community supervision.

Current Study

The current study is a proof of concept, examining the predictive accuracy of the CSDF in discriminating violent recidivism on community supervision in a pilot sample. We also examine whether the CSDF predicts over and above existing risk assessment instruments used in this jurisdiction. We discuss how the CSDF differentiates between violent recidivism and nonviolent or no recidivism on the domain and total score level, and the utility of the CSDF in decision-making practice. We also examine the convergent validity of the CSDF with other risk assessment instruments employed in this sample.

Method

Sample

The original sample comprised 390 adult males who completed the Integrated Correctional Program Model, a cognitive behavioral intervention that targets criminal thinking, poor self-control, and substance misuse. The sample for this pilot research included all 29 individuals who failed with a new violent crime arrest prior to end of sentence. This group was matched according to risk level with cases that did not violently reoffend. This resulted in a dataset of 58 adult males released on community supervision by the Correctional Service of Canada (CSC). Of the individuals who reoffended violently (n = 29), 14 failed during their community supervision sentence (24.1 percent) and 15 failed after their Warrant Expiry Date or at the end of their sentence (WED; 25.9 percent). The other half of the sample (n = 29) that did not fail violently either successfully completed their community supervision sentence (n = 16, 27.6 percent) or had a technical violation (n = 8, 13.8 percent). The sample was followed from their release date, between July 9, 2015, and November 20, 2017, until the study's last follow-up date, April 30, 2021. The average follow-up time was 52.7 months, with a range of 41 to 61 months. The sample's average age at release was 35.8 (SD = 9.6), with a range of 21 to 61 years old. Individuals were classified in a single racial category: 39 White (67.2 percent), 12 Indigenous (20.7 percent; two Metis, one Inuit, and nine not specified), six Black (10.3 percent), and one Asian (12.0 percent). The demographic information was collected through CSC's Offender Management System (OMS).

Measures

Revised Statistical Information on Recidivism Scale

The Revised Statistical Information on Recidivism Scale (SIR-R1; Nafekh & Motiuk, 2002) is an actuarial risk assessment measure that is used to predict risk and assist in parole decision-making. The SIR-R1 consists of 15 items that focus on historical risk factors (e.g., current offense, age at admission, previous incarceration). Total scores can range from -30 to +27, with greater scores reflecting lower risk of re-offending. At the intake assessment, the SIR-R1 is completed for all offenders, except Indigenous, female, and provincial inmates (CSC, 2019). In the current sample, nine individuals were not rated on this scale as they were identified as Indigenous prior to intake. Three additional offenders were identified as Indigenous after intake; therefore, they were still assessed with the SIR-R1.

Based on previous research using mainly Canadian non-Indigenous incarcerated males, the SIR-R1 had shown good predictive validity for both general and violent recidivism (AUC = .71 - .75; Nafekh & Motiuk, 2002). Therefore, the SIR-R1 is a well-established risk assessment tool for non-Indigenous male inmates.

Criminal Risk Index

The Criminal Risk Index (CRI; Motiuk & Vuong, 2018) is an actuarial tool measuring static risk designed to aid in case management of adults incarcerated or on community supervision in Canada. CRI assessments are scored at intake into federal custody and include 23 items relating to static criminal history. Total scores are summed and used to classify individuals into risk groups, with greater scores indicating greater risk of reoffending. Score cutoffs for risk groups differ between men and women according to base-rate differences in reoffending (CSC, 2018).

Motiuk and Vuong (2018) found that the CRI for men and the SIR-R1 were strongly correlated in a male sample (r = -.79), which demonstrates that the CRI has good convergent validity with the SIR-R1. In addition, research has also shown that the CRI has good predictive validity for men, women, non-Indigenous, and Indigenous inmates (AUC = .67 - .69; Motiuk & Vuong, 2018).

Community Supervision Decision-Making Framework

The CSDF is a structured professional judgment framework designed to aid CSOs in responding to technical violations in individuals under community supervision (e.g., breach of conditions; Serin, 2021). CSOs rate an individual's current risk, prior history, and the nature of the technical violation across the CSDF's eight domains: Decision event, Current risk status, Prior and current response to community supervision, Phase of release, Current acute risks, Current strengths, Identity transformation, and Imminent risk. See Figure 1. CSOs can use these ratings to guide their response strategy.

Domains are scored according to whether the individual's disposition on that domain is Mitigating, Neutral, or Problematic. First, CSOs rate the technical violation that occurred, the Decision event, as either Neutral (minor event) or Problematic (serious event related to previous criminal behavior). CSOs then rate the additional domains of Current risk status, Prior and current response to community supervision, Phase of release, Current acute risks, Current strengths, Identity transformation, and Imminent risk as either Mitigating, Neutral, or Problematic, with different characteristics to designate each rating. Current risk status is rated according to current risk as assessed by a validated risk instrument (Mitigating = Low, Neutral = Moderate, Problematic = High). Prior and current responses to community supervision are rated according to an individual's prior compliance or noncompliance with supervision (Mitigating = successful completion, Neutral = minor violations, Problematic = frequent failure). Phase of release is rated to reflect time on supervision (Mitigating = more than 24 months, Neutral = 6 - 24 months, Problematic = within 6 months). Current acute risks are rated to flag deterioration that may warrant intervention to manage risk (Mitigating = no acute risks, Neutral = acute risks inconsistent with prior criminal behavior, Problematic = acute risks consistent with prior criminal behavior). Current strengths are rated to account for the presence of strength factors that can mitigate risk (Mitigating = evidence of social capital and prosocial identity present, Neutral = any strength present, Problematic = no strengths present). Identity transformation is rated to reflect a shift away from criminal thinking (Mitigating = evidence of accepting responsibility, future orientation, Neutral = ambivalence towards others or limited goal orientation, Problematic = deflects responsibility, sees benefits of criminal activity). Lastly, Imminent risk is rated to flag behaviors and circumstances in line with previous criminal activity that suggest further criminal behavior is imminent (Mitigating = unlikely, Neutral = uncertain, Problematic = likely). See Appendix A for CSDF rating criteria.

The CSDF is designed to be a structured professional judgment instrument. For the purposes of the current study, however, ratings were assigned numeric values in order to examine relationships quantitatively (Mitigating = -1, Neutral = 0, Problematic = 1). Decision event was rated with three options instead of two (Mitigating = successful completion, Neutral = technical violation or nonviolent recidivism, Problematic = violent recidivism). Total CSDF scores are summed and can range from -8 to +8, with greater scores indicating higher risk.

Recidivism

Recidivism was coded as violent recidivism. Individuals who did not violently recidivate could have either successful completion, technical violation, or non-violent recidivism. The small sample did not allow us to further differentiate between non-violent outcomes. The outcomes were coded based on reported information found on the OMS.

Procedure

The cases were extracted from a dataset that was used in a previous study (McLaren, 2021). Participants were selected as a pilot dataset to examine violent versus nonviolent outcomes on community supervision. Half of the sample (n = 29) failed violently. Individuals who did not fail violently were somewhat matched on SIR-R1 score. SIR-R1 scores range from -30 to +27, wherein lower scores reflect greater risk of reoffense. Those who did not fail violently were considered for selection if their SIR-R1 score was below -7 in order to somewhat match those with violent outcomes whose SIR-R1 scores were more likely to be higher than -7. The offender cases used in this study were then coded using the CSDF by reading various reports from OMS (e.g., Correctional Plan Updates, Assessment for Decision). The lead researcher coded all of the cases with the CSDF. To calculate an interrater reliability, another researcher coded 5 out of the 58 cases. The second rater was a research assistant experienced in using OMS for research and in coding other frameworks. SIR-R1 and CRI scores for the sample were previously recorded into the dataset; thus they did not have to be reassessed for the current study.

Results

Descriptive Statistics

Descriptive information for the CSDF, SIR-R1, and CRI scores is presented in Table 1 (next page). For the Phase of Release domain, only those with the outcomes of violent recidivism before WED and technical violation were coded (n = 27). Descriptive frequencies of supervising officer response strategies used in the current cases are reflected in Table 2 (next page).

Interrater Reliability

The calculated IRR of the individual domains of the CSDF was found to be excellent, ICC = 1.00, p < .001, 95% CI [1.00, 1.00]. Likewise, the IRR for the total CSDF scores were excellent, ICC = .99, p < .01, 95% CI [0.85, 1.00]. These findings demonstrate that the two raters agreed on the domain and total scores for five cases.

Convergent Validity

The Pearson Correlation Coefficient, r, was used to assess the strength of the correlation between CSDF, SIR-R1, and CRI total scores exclusive of Current Risk Status. Nonsignificant correlations were found between all scores.

Group Differences in CSDF Domain and Total Scores

We examined if violent recidivists score differently than nonviolent or non-recidivists on the CSDF's domains. Assumptions for a Chi-square Test of Independence were met for CSDF domains. Differences between domains that violated the assumptions (Phase of Release, Prior and Current Response to Community Supervision, and Current Acute Risks) were examined with Fisher's Exact Test. Descriptive results are presented in Table 3 (page 8).

A Chi-square test was computed to determine if the domains of Decision Event, Current Risk Status, Current Strengths, Identity Transformation, and Imminent Risk were related to outcome (i.e., violent versus non-violent). A significant result was found for the domains of Decision Event, $\chi 2(2, N = 58) = 58.00$, p < .001, V = 1.00, Current Strengths, $\chi 2(2, N = 58) = 10.80$, p = .005, V = .43, and Imminent Risk, $\chi 2\ (2, N = 58) = 20.89$, p < .001, V = .60. A non-significant result was found for Current Risk Status and Identity Transformation, indicating proportions of individuals with different outcomes scored similarly on this domain.

Fisher's Exact Test revealed significant differences in proportions of violent recidivists and nonviolent or non-recidivists in scoring on the CSDF domains of Current Acute Risks, p < .001, V = .61. Nonsignificant differences were found for the domains of Prior and Current Response to Community Supervision or Phase of Release.

To determine if the violent and nonviolent or non-recidivists scored differently on the CSDF, a Mann-Whitney U test was conducted. There was a significant difference

between violent recidivists and nonviolent or non-recidivists in CSDF total scores, $U(N_{nonviolent} = 29, N_{violent} = 29) = 709.5$, $z = 4.5$, $p < .001$. The results demonstrated that the individuals with a violent outcome (*Mdn* = 5.0) had greater total scores on the CSDF than those with a successful or non-violent outcome (*Mdn* = -1.0).

A point-biserial correlation was conducted to examine the strength of the relationship between CSDF total scores and violent recidivism. A large significant association was found between violent recidivism and the total CSDF scores, whereby greater total scores were related to violent outcome, $rpb(58) = .60$, $p < .001$, 95% *CI* [.41, .75].

Predictive Validity

To analyze the predictive validity of CSDF total scores on time to violent recidivism, a Harrell's *C* test was calculated (Harrell, Califf, Pryor, Lee, & Rosati, 1982). The result demonstrated that the CSDF has an excellent ability to predict time to violent recidivism, $C = .72$, $SE = .05$. Harrell's *C* can range from 0.5 to 1.0, with 0.5 meaning no predictive ability and 1.0 meaning perfect prediction. Interpretations of magnitude will follow recommendations by Helmus and Babchishin (2017): .539 is considered low, .639 is moderate, and .714 is a high relationship.

Cox Regression was conducted to examine CSDF total scores effect on time to violent recidivism. The average time to failure for those with a violent outcome was 61.7 weeks (*SD* = 46.9). All else held constant, a 1-point increase in CSDF scores increased the hazard of time to failure by a factor of 1.29, $b = 0.25$, $SE = .06$, $HR = 1.29$, *CI* 95% [1.15, 1.45]. Figure 2 illustrates a survival curve of violent outcome by time to failure for those with low versus high median CSDF scores. (See Fig. 2, next page.)

Hierarchical Cox Regression was conducted to examine if CSDF total scores predict time to violent recidivism over and above SIR-R1 and CRI scores. A significant model was found. See Table 4 for full results. At Step 1, SIR-R1 scores significantly predicted time to violent recidivism, though the effect was small with a hazard ratio of only 1.01. At Step 2, CSDF scores were included in the model. After controlling for SIR-R1 and CRI scores, SIR-R1 no longer predicts time to violent recidivism, while CSDF scores do. All else held constant, a 1-point increase in CSDF scores increased the hazard of time to failure by a factor of 1.28. (See Table 4, page 9.)

TABLE 1
Descriptive Statistics on Assessment Results

Variables	*n*	Range	*M*	*SD*
Decision Event	58	[-1, 1]	0.2	0.9
Current Risk Status	58	[0, 1]	0.6	0.5
Prior and Current Response	58	[-1, 1]	0.8	0.5
Phase of Release	27	[0, 1]	0.7	0.5
Current Acute Risks	58	[-1, 1]	0.5	0.7
Current Strengths	58	[-1, 1]	-0.1	0.8
Identity Transformation	58	[-1, 1]	-0.2	0.8
Imminent Risk	58	[-1, 1]	0.0	0.8
CSDF Total	58	[-5, 8]	2.0	3.8
Violent Recidivism	29	[-4, 8]	4.3	3.0
NonViolent or No Recidivism	29	[-5, 6]	-0.2	3.1
SIR-R1	49	[-19, 6]	-9.8	5.9
CRI	58	[3, 33]	20.5	6.5

TABLE 2
Frequencies of Response Strategies Used with Outcome

Outcome/Response Strategy	*n*	%
Successful Completion		
No Response	16	100
Technical Violation		
Curfew	1	7.7
Increased Reporting Requirements	2	15.4
Jail Incarceration	2	23.1
Monitoring	5	38.4
No Response	3	23.1
Violent Recidivism After WED		
Jail Incarceration	15	100
Violent Recidivism Before WED		
Jail Incarceration	14	100

Note: "No Response" was coded if the CSO did not respond to an event or if the offender successfully completed their sentence. Iowa Department of Corrections—Behavioral Response Matrix was used as a guide for the coding.

Discussion

As community supervision is becoming a more common alternative to incarceration, research on case management intervention models is expanding. Currently, however, there is little research surrounding decision-making guidelines (Serin, Bourgon, Chadwick, & Lowenkamp, 2022). Without standardized frameworks to guide and track decision-making, CSOs cannot easily provide a transparent rationale for their responses to violations, particularly in the event of subsequent client failure. This limits any response to criticism of their decision-making and fails to provide guidance for improvement in decision-making.

The CSDF was developed to be a guide for CSOs in making community supervision decisions. The current study was a preliminary pilot study to using archival data to examine the CSDF's predictive accuracy, in

terms of discriminating between violent and non-violent/successful outcomes on community supervision.

Convergent Validity

The CSDF, exclusive of Current Risk Status, did not display a relationship with the risk assessment tools used in this sample, SIR-R1 and CRI. The lack of a relationship between SIR-R1 assessments with CRI and CSDF assessments is expected, due to the matching in this sample. While previous research has found a relationship between the SIR-R1 and CRI (Motiuk & Vuong, 2018), the sampling method for this study intentionally matched individuals on expected SIR-R1 score range. This limits the validity of these results as SIR-R1 scores were relatively stable across individuals in this sample.

Interestingly, CRI scores were not limited (*min* = 3, *max* = 33) and reflected almost the whole potential range of scores; yet it still did not correlate with CSDF scores, exclusive of Current Risk Status. This could be explained by the nature of the instruments. CRI assessments include only static criminal history items assessed at intake into federal custody. In contrast, the CSDF is intentionally dynamic in nature to better reflect an individual's *current* state for the purposes of risk management in the community. It includes domains designed to flag imminent risk according to an individual's acute risk factors. Hence, the CSO can use this information to intervene proactively.

Group Differences in CSDF Ratings

Differences in the CSDF's domain and total scores between non-violent and violent outcomes were examined. Significant differences were found within the domains of Current Acute Risks, Current Strengths, and Imminent Risk. There were many more violent outcome individuals with acute risks present (n = 25) than those with a non-violent outcome (n = 8). This finding aligns with research looking at acute risks and violent recidivism (Lowenkamp et al., 2016; Stone et al., 2021). The presence of acute risks, both at the individual and overall level if multiple acute risks are present, should trigger a response by the CSO to manage these risks. In relation to the Absence of Current Strengths, its differences were consistent with recent findings (Brown et al., 2020; DeLisi et al., 2021; Evans et al., 2011), whereby those who did not reoffend violently were more likely to have mitigating strength factors (n = 16) than those who reoffended violently (n = 6), despite being comparable in terms of risk. Lastly, violent offenders (n = 18) were more likely than non-violent offenders (n = 2) to have this rated as problematic. This supports the idea that imminent risk is important to consider in predicting short-term likelihood of crime.

The domains of Current Risk Status, Response to Supervision, Phase of Release, and Identity Transformation did not yield significant differences among violent and non-violent individuals, which was contradictory to previous research (e.g., Leonard, 2004; Honegger & Honnegger, 2019; Bachman

TABLE 3
Crosstabulation of CSDF Domain Ratings with Outcome

	Mitigating *n*	Neutral *n*	Problematic *n*	*p*
Decision Event				
Violent	0	0	29	< .001***
NonViolent	16	13	0	
Current Risk				
Violent	—	12	17	
NonViolent	—	12	17	
Response to Supervision				
Violent	1	5	23	
NonViolent	0	6	23	
Phase of Release				
Violent	—	2	12	
NonViolent	—	7	6	
Current Acute Risks				
Violent	2	2	25	< .001***
NonViolent	3	18	8	
Current Strengths				
Violent	6	10	13	.005**
NonViolent	16	10	3	
Identity Transformation				
Violent	9	11	9	
NonViolent	17	9	3	
Imminent Risk				
Violent	4	7	18	< .001***
NonViolent	16	11	2	

Note. *p < .05, **p < .01, ***p < .001. N = 58 for all domains except Phase of Release (n = 27).

FIGURE 2
Survival Plot of CSDF Scores by Time to Violent Recidivism or End of Study in Weeks

Note: Cut-off score between low and high CSDF was set at the median value of 2.5.

et al., 2016). A likely explanation to why Current Risk Status was not significantly different between the two outcomes is that the majority of the sample had SIR-R1 scores less than -7 (74.1 percent). As mentioned, the smaller the SIR-R1 score, the greater the risk of recidivism is (Nafekh & Motiuk, 2002). The majority of the sample were classified as moderate to high risk, explaining the homogeneity within the sample. Ratings on Prior and current responses to supervision and Identity transformation domains were similar across individuals in this sample. Also, the Phase of Release was similarly short for all individuals in this sample, due to the short follow-up time. Future research could examine the relationship between these factors on a larger, less homogenous sample in terms of risk.

Regarding CSDF total scores, individuals who violently reoffended had a much greater median CSDF score than individuals who did not violently reoffend, and greater total scores on the CSDF were strongly related to violent outcome.

Predictive Accuracy

This pilot research was intended to provide initial validation of the CSDF for use in predicting violent recidivism for adults on community supervision in Canada. The CSDF demonstrated excellent levels of predictive validity in predicting violent recidivism in this sample ($C = .72$).

CSDF scores also predicted time to violent recidivism. The effect is considered small according to Cohen's criteria (Chen, Cohen, & Chen, 2010; Cohen, 1988). This is especially encouraging for this pilot research, as the CSDF was examined as a statistical tool, but in a real-world context, there will be more variation as it is meant to be a structured professional judgment framework.

CSDF scores demonstrated the ability to predict time to violent recidivism, over and above that of risk assessment instruments in this sample, although this effect is limited. Because there was limited variation in SIR-R1 scores in this sample, further research should be conducted on a more heterogeneous sample regarding risk to replicate the results.

Conclusion

The CSDF is a new structured professional judgment framework intended to guide CSOs in making decisions regarding violations that routinely occur in community supervision. The purpose of the current study was to examine two main research questions: 1) Does the CSDF discriminate between offenders with and without a violent outcome? The analyses examined differences between these two outcome groups within the individual domains of the CSDF and the total score of the framework. It was found that, even in this matched sample, violent offenders were significantly different from non-violent individuals in the CSDF total score and in domains of Current Acute Risks, Current Strengths, and Imminent Risk. 2) Can CSDF total scores predict violent recidivism? This framework was able to strongly predict violent reoffending and time to violent re-offense. Overall, the current study demonstrated promising findings regarding the validity and utility of the CSDF. As this is an initial pilot study, these findings are promising towards the further development and validation of the CSDF.

Limitations & Future Directions

The present research was a pilot study with a limited, matched sample. This provided an excellent glimpse into the potential of the CSDF; however, the sample was not sufficiently varied to generalize across other samples. Future research should expand on this pilot study to replicate the findings across larger and more varied samples.

Another important limitation of this study is the scoring of the Decision Event. The intended way to rate this domain is that it would be scored as neutral if the event warranting a decision was minor, and as problematic if it was a serious event related to the individual's offence chain. In the current study, the Decision Event was rated as the following: individuals who successfully completed their supervision received a mitigating score, those who had a technical/administrative violation were neutral, and offenders who reoffended violently were scored as problematic. Thus, the current study did not consider the participants' offense cycle in rating the Decision Event. This could be considered a limitation, as offenders might have had a different total score if this domain was rated as it is intended to be rated. More specifically, the true range for the CSDF's total score should be -7 to +8, not -8 to +8, as it was in the current study. As well, 61 percent of Canadian recidivists under a federal warrant reoffended with a less severe crime than their previous offenses (Stewart, Wilton, Baglole, & Miller, 2019). This may indicate that the majority of the recidivists in this study would have received a score of neutral for the domain of Decision Event, which would possibly have reduced their total score. The scoring of the Decision Event was also a consequence of the archival methodology of the current study which yielded limited information in some cases.

Furthermore, the scoring of the Phase of Release domain may also be a limitation. In the current study, cases did not receive a score in this domain if they committed violent recidivism after the end of their sentence. They were rated this way since their outcome was after their supervision sentence was over. This could be seen as a limitation, since total scores reflected follow-up only to end of sentence.

A final limitation of this study is that, given its archival design, some offender cases were lacking sufficient information to code all domains. Various electronic corrections and parole reports were examined to retroactively code the CSDF for this research. For a few cases, there was a lack of files dated after the release date and prior to their event date, and some reports did not contain enough detailed information for coding the CSDF. Therefore, some domain scores may not have been rated properly, despite the excellent inter-rater reliability in this study. Overall, this

TABLE 4
Hierarchical Cox Regression

	HR	*CI* 95% [LL, UL]	*Est.*	*SE*	*p*	*-2LL*
Step 1						196.17
SIR-R1	1.01	[1.00, 1.02]	0.01	0.00	.019*	
CRI	0.98	[0.93, 1.04]	-0.02	0.03	.552	
Step 2						176.95***
SIR-R1	1.00	[1.00, 1.01]	0.00	0.00	.276	
CRI	0.98	[0.93, 1.03]	-0.02	0.02	.504	
CSDF	1.28	[1.14, 1.44]	0.25	0.06	< .001***	

* $p < .05$, *** $p < .001$

could be considered a limitation, as the total and domain CSDF scores might have been different if more recent and more detailed information were available (e.g., closer to the event date).

Future research should use various and larger samples to build upon these findings to further our understanding of the CSDF's predictive validity. It would also be helpful to examine the incremental validity of the CSDF beyond current risk instruments such as the SIR-R1. An important consideration for future research is to use a prospective design and to have a fixed follow-up time. In the current study, certain analyses could not be used, as there was no fixed follow-up. Therefore, this change could provide stronger findings. Furthermore, as Phase of Release was not coded for some cases (for example, successful completion and offense after end of sentence), future research could make certain that all events occurred prior to the participants' WED to allow consistency in scoring. Future research could also test and develop guidelines for scoring for response strategy options. In the current study, the response strategies used in the various cases were noted to get a sense of the most common responses relating to risk. Overall, the findings are promising that using a more time-dependent and structured approach may assist CSOs to better identify risk situations for individual cases and to respond accordingly, thereby promoting public safety and enhancing confidence in community supervision practice.

References

Bachman, R., Kerrison, E., Paternoster, R., O'Connell, D., & Smith, L. (2016). Desistance for a long-term drug-involved sample of adult offenders: The importance of identity transformation. *Criminal Justice and Behavior, 43*(2), 164-186. https://doi.org/10.1177/0093854815604012

Berecochea, J. E., Himelson, A. N., & Miller, D. E. (1972). The risk of failure during the early parole period: A methodological note. *The Journal of Criminal Law, Criminology and Police Science, 63*(1).

Brown, S. L., St. Amand, M. D., & Zamble, E. (2009). The dynamic prediction of criminal recidivism: A three-wave prospective study. *Law and Human Behavior, 33*, 25-45. https://doi.org/10.1007/s10979-008-9139-7

Brown, S. L., Robinson, D., Wanamaker, K., & Wagstaff, M. (2020). Strengths matter: Evidence from five separate cohorts of justice-involved youth and adults across North America. *Criminal Justice and Behavior, 47,* 1428-1447. https://doi.org/10.1177/0093854820931549

Center for Effective Public Policy. (2017). *The evidence-based decision making initiative: An overview for probation.* https://cepp.com/wp-content/uploads/2021/04/The-Evidence-Based-Decision-Making-Initiative-An-Overview-for-Probation-2017.pdf

Chen H., Cohen P., & Chen S. (2010). How big is a big odds ratio? Interpreting the magnitudes of odds ratios in epidemiological studies. *Communications in Statistics-Simulation and Computation. 2010, 39*(4):860-864. https://doi.org/10.1080/03610911003650383

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.

Correctional Service Canada (2019). *Commissioner's Directive 705-6. Correctional Planning and Criminal Profile.* https://www.csc-scc.gc.ca/acts-and-regulations/705-6-cd-en.shtml#2.2

Council of State Governments. (2019). Confined and costly: How supervision violations are filling prisons and burdening budgets. https://csgjusticecenter.org/wp-content/uploads/2020/01/confined-and-costly.pdf

DeLisi, M., Drury, A., & Elbert, M. (2021). Who are the compliant correctional clients? New evidence on protective factors among federal supervised releases. *International Journal of Offender Therapy and Comparative Criminology, 65*(13-14), 1536-1553. https://doi.org/10.1177/0306624X21992681

Evans, E., Jaffe, A., Urada, D., & Anglin, M. D. (2011). Differential outcomes of court-supervised substance abuse treatment among California parolees and probationers. *International Journal of Offender Therapy and Comparative Criminology, 56*(4), 539-556. https://doi.org/10.1177/0306624X11404827

Gordon, A., & Wong, S. C. P. (2011). Offence analogue behaviours as proxy indicators of criminogenic need and treatment progress in custodial settings. In M. Daffern, L. Jones, & J. Shine (Eds.), *Offence Paralleling Behaviour: A Case Formulation Approach to Offender Assessment and Intervention* (pp.171 - 183). Wiley.

Gray, M. K., Fields, M., & Maxwell, S. R. (2001). Examining probation violations: Who, what, and when. *Crime and Delinquency, 47*(4), 537-557. https://doi.org/10.1177/0011128701047004003

Hanson, R. K., & Harris, A. J. R. (2000). Where should we intervene? Dynamic predictors of sexual offence recidivism. *Criminal Justice and Behavior, 27*(1), 6-35. https://doi.org/10.1177/0093854800027001002

Hanson, R. K., Harris, A. J. R., Scott, T., & Helmus, L. (2007). *Assessing the risk of sexual offenders on community supervision: The Dynamic Supervision Project* (User Report No. 2007-05). Public Safety Canada, https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/ssssng-rsk-sxl-ffndrs/index-en.aspx

Harrell, F. E., Califf, R. M., Pryor, D. B., Lee, K. L., & Rosati, R. A. (1982). Evaluating the yield of medical tests. *Journal of the American Medical Association, 247*, 2543-2546. https://doi.org/10.1001/jama.1982.03320430047030

Helmus, L. M., & Babchishin, K. M. (2017). Primer on risk assessment and the statistics used to evaluate its accuracy. *Criminal Justice and Behavior, 44*(1), 8-25. https://doi.org/10.1177/0093854816678898

Honegger, L. N., & Honegger, K. S. (2019). Criminogenic factors associated with noncompliance and rearrest of mental health court participants. *Criminal Justice and Behavior, 46*(9), 1276-1294. https://doi.org/10.1177/0093854819862010

Klingele, C. (2013). Rethinking the use of community supervision. *Journal of Criminal Law and Criminology, 103*(4), 1015-1069. https://doi.org/0091-4169/13/10304-1015

Leonard, M. A. (2004). Predicting completion vs. defection in a community-based reintegration program. *Journal of Offender Rehabilitation, 40*(1/2), 133-146. https://doi.org/10.1300/J076v40n01_07

Lowenkamp, C. T., Johnson, J. L., Trevino, P., & Serin, R. (2016). Enhancing community supervision through the application of dynamic risk assessment. *Federal Probation, 80*(2), 16-20. https://web-p-ebscohost-com.proxy.library.carleton.ca/ehost/pdfviewer/pdfviewer?vid=0&sid=a8ff2820-e940-4175-a5c6-2e86a9454a8b%40redis

Maruna, S. (2010). *Understanding desistance from crime*. Ministry of Justice and National Offender Management Services, www.safeground.org.uk/wp-content/uploads/desistance-fact-sheet.pdf

McLaren, S. A. (2021). *Capturing change: Validation of the Client Change Scale with the Correctional Service of Canada community* [Masters Thesis, Carleton University]. https://curve.carleton.ca/b50fad5a-2965-4e65-8cf1-f5995a6e738a

Monahan, J., & Skeem, J. L. (2016). Risk assessment in criminal sentencing. *Annual Review of Clinical Psychology, 12,* 489-513. https://doi.org/10.1146/annurev-clinpsy-021815-092945

Motiuk, L., & Vuong, B. (2018). *The development and validation of a Criminal Risk Index (CRI) for federally sentenced offenders in Canada* (Research Report No. R-403). Correctional Service Canada, https://publications.gc.ca/collections/collection_2018/scc-csc/PS83-3-403-eng.pdf

Nafekh, M., & Motiuk, L. (2002). *The Statistical Information on Recidivism—Revised 1 (SIR-R1) Scale: A psychometric study* (User Report No. 2002-126). Correctional

Service Canada, https://www.csc-scc.gc.ca/research/092/r126_e.pdf

Oudekerk, B., & Kaeble, D. (2021). *Probation and parole in the United States, 2019*. Bureau of Justice Statistics, https://bjs.ojp.gov/sites/g/files/xyckuh236/files/media/document/ppus19.pdf

Paternoster, R., & Bushway, S. (2009). Desistance and the "feared self": Toward an identity theory of criminal desistance. *Journal of Criminal Law and Criminology, 99*(4).

Public Safety Canada (2020). *Corrections and Conditional Release Statistical Overview 2019*. https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/ccrso-2019/ccrso-2019-en.pdf

Rydberg, J., & Grommon, E. (2016). A multimethod examination of the dynamics of recidivism during reentry. *Corrections, 1*(1), 40-60. https://doi.org/10.1080/23774657.2016.1105660

Serin, R. C. (2021). The Community Supervision Decision Framework (CSDF) [Unpublished user guide].

Serin, R. C., Bourgon, G., Chadwick, N., & Lowenkamp, C. T. (2022). Probation decision-making. In Miller, M. K., Yelderman, L. A., Cantone, J. A., & Huss, M. (Eds.), *The Cambridge handbook of psychology and legal decision making*. Cambridge University Press.

Stewart, L. A., Wilton, G., Baglole, S., & Miller, R. (2019). *A comprehensive study of recidivism rates among Canadian federal offenders* (Research Report No. R-426). Correctional Service Canada, https://www.csc-scc.gc.ca/005/008/092/005008-r426-en.pdf

Stone, A. G., Lloyd, C. D., & Serin, R. C. (2021). Dynamic risk factors reassessed regularly after release from incarceration predict imminent violence recidivism. *Law and Human Behavior, 45*(6), 512-523. https://doi.org/10.1037/lhb0000463

Taxman, F. S., Soule, D., & Gelb, A. (1999). Graduate sanctions: Stepping into accountable systems and offenders. *The Prison Journal, 79*(2), 182-204.

Wanamaker K. A., & Brown, S. L. (2021). The relationship between patterns of change in dynamic risk and strength scores and reoffending for men on community supervision. *Criminal Justice and Behavior, 48*(9), 1208-1228. https://doi.org/10.1177/0093854821993512

APPENDIX A

Community Supervision Decision-Making Framework Rating Sheet

Domains	Mitigating (-1)	Neutral (0)	Problematic (1)
Current Risk Status	Low Risk	Moderate Risk	High Risk
Response to Supervision	Successful completion	Minor violations	Frequent failures
Phase of Release	Greater than 24 months	Between 6 and 24 months	Less than 6 months
Current Acute Risks	No acute risks	Acute risks somewhat present, but not consistent with criminal behaviour	Acute risks present and consistent with criminal behaviour
Current Strengths	Prosocial identity and social capital present	Either strength present	No strengths
Identity Transformation	Sees need for redemption, accepts responsibility for actions, is future oriented, and sees benefits of crime desistance	Ambivalent towards others and have limited goals	Deflect responsibility, are self-centered, and see short-term rewards for crime
Imminent Risk	Imminent risk unlikely	Imminent risk uncertain	Imminent risk likely