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Risk–need–responsivity and its application in behavioral health settings: A feasibility study of a treatment planning support tool

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Abstract

The risk–need–responsivity (RNR) model suggests several key practices for justice-involved populations under correctional supervision. Behavioral health treatment planning aligned with RNR principles for offender populations with co-occurring mental health and substance use disorders (CODs) could be one method for integrating RNR into clinical care. To explore a unique approach to working with behavioral health and RNR principles, the authors implemented a mixed-methods feasibility study of the acceptability, usability, and utility of a newly developed RNR treatment planning support tool (RNR TST). The tool was implemented in a re-entry program serving adults with co-occurring mental health and opioid use disorders. Chart reviews of RNR TSTs ($N = 55$) and a focus group ($N = 14$ re-entry clinical staff) were conducted. Ninety-six percent of the RNR TSTs incorporated the use of a validated risk–need assessment and 70% of the RNR TSTs were semi-complete to complete. Focus group interviews highlighted behavioral health staff perspectives on the acceptability, usability, and utility of the RNR TST. This novel RNR TST has the potential to assist behavioral health providers in integrating RNR principles into treatment planning. Further development and testing are needed to determine its impact on client care and outcomes.

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1 | INTRODUCTION

1.1 | Overview of the problem

It is well established that individuals with co-occurring mental health and substance use disorders (CODs) are at increased risk of criminal justice involvement (Balyakina et al., 2013; Peters, Kremling, Bekman, & Caudy, 2012). Nationally, approximately 17% of incarcerated persons have a serious mental illness, 53–68% have substance use disorders, and 59–72% of those with a mental health disorder also have co-occurring substance use disorders (Osher, D'Amora, Plotkin, Jarrett, & Eggleston, 2012). The risk–need–responsivity (RNR) model has been proposed as an effective framework for reducing recidivism risk of justice-involved individuals with CODs (Osher et al., 2012).

The RNR model comes from Andrews and Bonta, who identified eight primary individual risk factors related to criminal justice recidivism (Andrews & Bonta, 2010; Andrews, Bonta, & Wormith, 2005). These factors can be further broken down into those most correlated with criminal recidivism (the so-called "big four" antisocial type factors of antisocial behavior history, antisocial personality factors, antisocial cognitions, and antisocial peers), as well as those that, while associated with criminal recidivism, have a less robust relationship to crime (the so-called "little four": family/marital relationships, school/vocational activities, leisure time activities, and substance use) (Skeem & Peterson, 2011). The RNR model then identifies the individual's criminogenic needs within these domains that could reduce risk and the individual's responsivity to those interventions. For decades, criminal justice supervision has been centered around the application of these RNR principles to help guide case planning and reduce recidivism risk by addressing criminogenic needs (Taxman, Thanner, & Weisburd, 2006). However, despite calls for a "next generation" of practice guidelines to help behavioral health and criminal-legal systems work together to deliver more effective services (Wolff et al., 2013), little has been done to operationalize the integration of the RNR model with behavioral health treatment systems.

For instance, programs have emerged that show promise in safely and mutually supporting justice-involved individuals such as those diverted from jail and those subject to probation and parole (Draine & Herman, 2007; Pinals et al., 2019; Smelson et al., 2018, 2020; H. J. Steadman et al., 2013; H. Steadman & Veysey, 1997; SAMHSA, 2019). But, for the most part, these advances have not effectively integrated the RNR model, criminogenic risks and needs in general, or its approaches to more antisocial personality associated challenges (Osher & Steadman, 2007). As a result, justice-involved individuals engaged in varied systems (e.g., mental health, substance use, criminal justice) may experience disjointed services that have dissimilar ways of addressing the individual's needs and the public's safety. Because of unmet needs and a host of complex factors, justice-involved individuals continue to overutilize treatment services and revolve in and out of care (National Healthcare for the Homeless Council, 2019). There continues to be a critical demand for programs that help individuals succeed within and across systems (Pinals, 2014; Pinals & Felthous, 2017).

One such program, a model called "Maintaining Independence and Sobriety through Systems Integration, Outreach, and Networking-Criminal Justice (MISSION-CJ)," was specifically developed to address these gaps. MISSION-CJ applies an amalgamation of evidence-based practices and incorporates RNR principles to assess and address the criminogenic risks and needs of justice-involved people with co-occurring mental health and substance use disorders. MISSION-CJ utilizes a behavioral-health system embedded case manager and peer support specialist team to coordinate and link participants to a variety of behavioral health, medical, and social service supports, while closely and intentionally collaborating with community supervision staff (e.g., parole or probation). Promising data have emerged from preliminary studies (Pinals et al., 2019; Smelson et al., 2018, 2020) indicating significant improvements in behavioral health and criminal justice outcomes for MISSION-CJ justice-involved participants with CODs. At the same time, anecdotal evidence indicates that behavioral health teams within an array of provider agencies face challenges in consistently applying the RNR model to treatment planning in the legal system.

Various tools have been developed to address these challenges, one of which is the RNR Simulation Tool (Taxman & Pattavina, 2013). The RNR Simulation Tool is a web-based, decision-support system designed to assist agencies in determining what types of programming will be most effective in reducing an individual's recidivism risk by providing a summary of: (1) a client's needs based on factors such as a history of substance use or antisocial thinking; (2) a client's estimated recidivism rate or estimated success rate; and (3) three programs that are available in the jurisdiction to which the client is returning that would best address his or her needs (Taxman & Pattavina, 2013). This tool has been helpful in assisting jurisdictions and providers implement the RNR framework through a criminal justice lens and with a focus on a system's ability to respond to a client. Other case planning tools have evolved from risk assessment measures. One such model is the Ohio Risk Assessment System: Community Supervision Tool (Latessa, Smith, Lemke, Makarios, & Lowenkamp, 2009), which helps community supervision staff more effectively assist individuals under supervision to reduce recidivism by targeting areas identified in the risk assessment measure. This tool is designed primarily for the correctional supervising staff.

Although these developments are important, others have noted that more effort is needed to tie behavioral health treatment responses to specific criminogenic risks (McCormick, Peterson-Badali, & Skilling, 2017). The approaches and findings to date demonstrate steps forward, but also highlight that more work in this area is needed to assure that the various components of the behavioral health system and the legal system interact effectively. In particular, a careful integration of different schools of thought regarding RNR is needed to help achieve positive outcomes for the individual without compromising public safety (Pinals, 2015).

1.2 | RNR treatment planning support tool development

The RNR treatment planning support tool (RNR TST) version 2.0 (Pinals, 2018) was developed to fill this gap of integrating approaches from siloed systems. It attempts to bridge approaches of behavioral health and criminal justice systems by applying formalized risk–need assessments to inform more comprehensive behavioral health treatment planning, recognizing that reduction of criminal recidivism can be conceptualized as a recovery-oriented personal goal. Initially developed for use with court-involved individuals with CODs who were receiving MISSION-CJ alongside standard Mental Health Court processing and probation services, the tool operationalizes Andrews and Bonta's RNR framework and evidence-based practices for this group of individuals. It takes into account the potential for misinterpretation of actuarially derived risk levels when applied to the individual (Baird, 2017) as well as core recovery concepts by integrating a careful analysis of the individual's strengths, trauma history, background, contextual, and cultural factors to more holistically approach behavioral health supports and tie in these concepts to community supervision and cross-system coordination. In this way, it also helps support behavioral health providers to work with clients in a more individualized, culturally responsive, and person-centered manner.

By incorporating the various elements of the RNR framework, the RNR TST is designed to elicit a person-centered treatment plan that can help individuals drive their own change with the support of RNR-informed behavioral health staff and coordination with criminal justice supervisors. Through this work, interventions aim to reduce repeat contact with the criminal justice system while also ameliorating symptoms and suffering related to behavioral health conditions.

The RNR TST is intended to be used with individuals with diverse criminal justice involvement, including those under community supervision by probation or parole, in specialty courts, and returning to their communities from jails and prisons. In implementing the RNR TST across programs, case managers gather existing data from formalized risk–need assessments typically administered by the criminal justice provider such as the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) and Level of Service Inventory-Revised (LSI-R) (Andrews & Bonta, 1995, 2003; Northpointe Institute for Public Management, 1996) when available, as well as from various behavioral health psychosocial assessments (e.g., general behavioral health intake or structured clinical measures such as the Post-Traumatic Stress Disorder Checklist or the Behavior And Symptom Identification

Scale) (Weathers et al., 2013). Data are used to identify behavioral targets, goals, and interventions to address criminogenic risk that ultimately align with the individual's personal recovery goals. To enhance utilization of the RNR TST by behavioral health providers, an accompanying guidebook (Gaba, Clary, & Pinals, 2018) was developed and includes a rationale for the tool, an explanation for each item on the tool, a list of frequently asked questions, and a case example.

This is the first feasibility study of the RNR TST within a large MISSION-CJ re-entry program. Our objective was to assess feasibility – defined as whether the RNR TST can and should be incorporated into program models and developed further, and if so, how (Eldridge et al., 2016) – by examining the acceptability, usability, and utility of the RNR TST. This is a commonly used approach to assess feasibility of a particular innovation, such as a new clinical tool (Glasgow, & Riley, 2013; Lyon, Koerner, & Chung, 2020; Proctor et al., 2009, 2011).

2 | METHODS

The purposes of this mixed-methods feasibility study were to quantitatively and qualitatively evaluate the feasibility of implementing the RNR TST. Feasibility was measured in three ways: *acceptability* (defined as whether clinicians found the tool likeable, including its format and features); *usability* (defined as whether the tool could be used by clinicians to adequately record, track, and summarize risk–need information gathered from risk–need and psychosocial assessments); and *utility* (defined as perceived usefulness of the tool to support behavioral health staff in treatment planning aligned with the RNR model and best practices).

To evaluate the tool on these three metrics, a mixed-method approach utilizing a sequential strategy (Kroll & Neri, 2009) as a triangulation technique (Bowen et al., 2009) guided two assessment phases: (1) a quantitative chart review of completed RNR TSTs; and (2) a qualitative focus group with clinical staff. This study was undertaken as part of a quality improvement process in the context of a larger multi-system evaluation of a re-entry program serving individuals with co-occurring opioid use and mental health disorders in the process of being released into the community from jails and prisons. The re-entry program was a collaboration with the state's Department of Health and Human Services Behavioral Health and Developmental Disabilities Administration Office of Recovery Oriented Systems of Care, Department of Corrections, two local county jails, and behavioral health treatment providers who offered MISSION-CJ services, which, as noted earlier, included comprehensive case management and peer support services to men and women being released from prison and jails.

To be included in this re-entry program, individuals had to be 18 years or older; have an opioid use disorder and co-occurring mental health condition; due to be released from the correctional facility within 90 days of enrollment; and due to be released to the county in which services were being provided. All clients met with their case manager at the start of programming and agreed to receive MISSION-CJ services and to participate in program evaluation. MISSION-CJ services were then provided for up to 3 months pre-release, and up to 6 months post-release in the community. The data for this study were collected across the course of the implementation of the program from November 2017 to January 2020. The University of Massachusetts Medical School, Wayne State University, and University of Michigan institutional review boards (IRBs) determined the present study was a program evaluation and exempt from IRB review.

To implement the RNR TST, case manager and peer support specialist teams in this re-entry program received training in RNR principles and the RNR TST, as well as periodic program consultation from the RNR TST and MISSION-CJ developers. Case managers were encouraged to complete the RNR TST for every pre-release client and update the RNR TST every 2 months during their course of care. Case managers were also encouraged to review and track progress with the client and other providers regularly, especially with parole and probation officers for any clients under community supervisor.

2.1 | Quantitative methods and analysis

As described earlier, the RNR TST integrates and helps clinical staff summarize information from several sources, including both criminogenic risks need assessments (e.g., COMPAS, LSI) (Andrews & Bonta, 1995; Northpointe Institute for Public Management, 1996) and psychosocial assessments, to identify behavioral targets, goals, and interventions. Domains of the RNR TST include the following elements: demographics; brief COD history/current functioning; the eight primary factors that are correlated with criminal recidivism (e.g., antisocial behavior, anti-social personality factors, antisocial cognitions, antisocial peers, family/marital relationships, school/vocational activities, leisure time activities, and substance use); and responsivity factors such as mental health. In addition, based on the identified risk and need gathered from risk–need and psychosocial assessments, the tool requires the provider to assign their client to one of four quadrants on the RNR rating scale (see Figure 1). The rating assigned to each client is based on the overall unique combination of the client's criminogenic and behavioral health needs and functioning. Ultimately, it is a holistic estimate rating that helps the behavioral health and probation/parole staff determine the intensity of coordination and monitoring between behavioral health supports and criminal justice supervisors by recognizing that mental health, substance use, and criminogenic risk occur on a continuum and that resources should be allocated to where needs are highest (Osher et al., 2012). One indicator that was measured as a proxy for usability was the mean number of days from enrollment to completion of an RNR plan (both pre- and post-release).
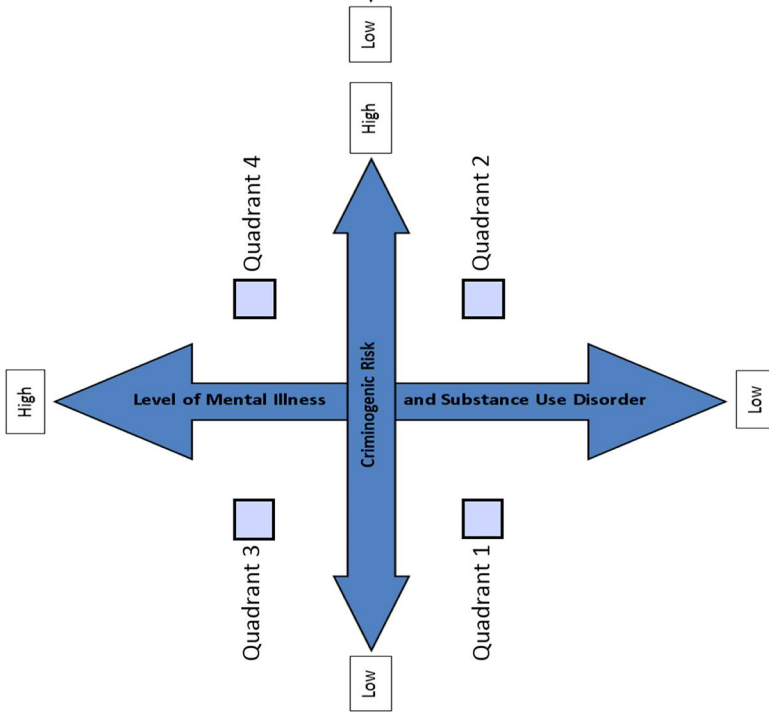
In order to help understand usability of the RNR TST, in this study we collected scores from another measure, the COMPAS (Northpointe Institute for Public Management, 1996). The COMPAS is a validated web-based risk and needs assessment instrument designed to assess offenders' criminogenic needs and risk of recidivism. It is used to inform decisions regarding the placement, supervision, and case management of offenders. It includes known risk factors in its prediction of recidivism and is used to aid in correctional intervention to decrease the likelihood that offenders will re-offend. The COMPAS consists of 21 scales used to assess general recidivism risk and violent recidivism risk and has been tested and empirically validated across several large-scale studies, demonstrating good construct and content validity and internal consistency across a racially and ethnically diverse sample of offenders (Farabee, Zhang, Roberts, & Yang, 2010; Brennan, Dieterich, & Oliver, 2005). In the current program for which this review was conducted, the COMPAS is completed by correctional personnel upon the client's entry to the correctional facility. The facility provided case managers a copy of each client's COMPAS score and report once the client was enrolled in MISSION-CJ services for re-entry. The behavioral health providers then use that information, along with behavioral health data, to guide planning and support of the individual.

Additionally, the risk of recidivism score was obtained from COMPAS assessments completed by correctional personnel in order to assess agreement between the COMPAS risk rating and the clinician's report of risk based on the COMPAS. We wanted to assess whether clinicians used the COMPAS score or utilized subjective judgment to adjust the COMPAS rating, because research indicates that, in a number of decision-making contexts, utilization of subjective judgment by a clinician, referred to as unstructured professional judgment, risks producing results inferior to judgments informed by these tools (Casey et al., 2014), and thus may lead to development of treatment plans that are not aligned to the client's accurate risk level with regard to criminogenic risks. We computed an intraclass correlation coefficient (ICC) to measure the reliability between the COMPAS scores and the clinician's report of the risk rating on the RNR TST. Risk–need assessment instruments other than the COMPAS, such as the LSI-R, were utilized to inform the RNR TST. However due to the low sample of collected plans with an LSI-R, these plans were excluded from this portion of the analysis.

The RNR TSTs were collected through a review of clinical records. Participant demographics and risk domain characteristics were summarized from the RNR TST using counts and percentages for categorical variables and central tendency statistics, including means and standard deviations (SDs) for continuous variables. Two data analysts independently rated each RNR TST for its overall completeness (1, complete; 2, semi-complete; 3, barely complete) and for staff identification of targeted interventions for areas of need (1, yes, comprehensive

Criminogenic Need and Functional Impairment Linkage Grid:

Client Data (*Carefully Examine Risk and Need to Identify the Appropriate Ratio of Behavioral Health and Criminal Justice Resource Utilization, Then Place Check in Appropriate Quadrant in Linkage Grid to Correspond to Client Needs*)

Reference Grid (*Identifying Strategies to Work with Target Population of Persons with Mental Illness by Criminogenic Need and Functional Impairment*)
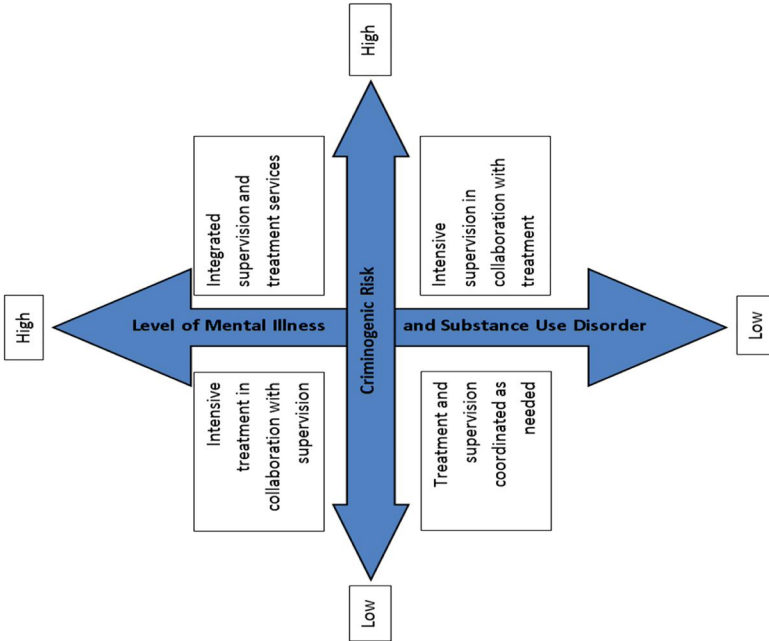

FIGURE 1 Risk–need–responsivity treatment planning support tool quadrant scale (adapted in part from Osher et al. 2012) [Colour figure can be viewed at wileyonlinelibrary.com]

interventions identified; 2, yes, but interventions identified are not comprehensive; 3, some interventions identified; 4, no interventions identified). Cohen's kappa statistic was computed to measure the inter-rater reliability (IRR) between two independent evaluation staff. Data are shown in Tables 1–4.

Additionally, a Mann–Whitney U-test was used to compare mean days to complete the RNR TST for pre-release clients and post-release clients. All tests for significance utilized an alpha level of $p < 0.05$. All quantitative data management and analyses were conducted using IBM SPSS Statistics version 26.

2.2 | Qualitative methods and analysis

Qualitative approaches are often used in health sciences to explore and uncover understandings of complex social phenomena, such as care for co-occurring disorders. A semi-structured interview guide was used (see Appendix 1 for sample interview questions) to ask MISSION-CJ providers (re-entry case managers, peers support specialists, and supervisors) their views on the acceptability, usability, and utility of the RNR TST. The interview guide was developed based on prior case consultations and feedback from current and past MISSION-CJ providers. Colleagues internally reviewed the interview guide and provided feedback to further refine the guide. The interview lasted 60 min, was digitally recorded, and then transcribed. All identifiers were stripped during transcription.

We used an inductive approach using the Framework Method for management and analysis for qualitative data such as those used in many facets of health research (Gale, Heath, Cameron, Rashid, & Redwood, 2013). The analytic framework consists of seven stages for the systematic evaluation of qualitative data: transcription; familiarization with the interview; developing a coding procedure; developing a working analytic framework; applying the analytic framework; charting data in a framework matrix; and interpreting the data. Using this framework, data from the qualitative focus group were first transcribed verbatim and anonymized. Thematic content analysis of the textual data from the qualitative interviews was conducted by two independent analysts using Microsoft Excel. An inductive approach was used to analyze the qualitative data. First, the team developed a matrix within Excel based on the focus group interview guide, guided by the Framework Method (Gale et al, 2013). The analysts then used the interview notes to record themes within the Excel framework. After this step, each analyst used the transcription of the audio-recording to fill in any gaps in the Excel framework. Afterwards, the analysts discussed similarities and differences in their thematic matrices and organized a final framework of themes. Remaining overarching and independent themes were retained.

3 | RESULTS

3.1 | Quantitative results

The RNR TSTs were reviewed for a total of 55 re-entry program participants (see Table 1). The individuals included in the TSTs under review were mostly male (69%), non-Hispanic (92%), Caucasian (66%) and between the ages of 26 and 45 years (73%). Roughly two-thirds of the RNR TSTs included clients with a substance use disorder (62%), over three-quarters (79%) had a mental health disorder, and 65% met the threshold score for probable post-traumatic stress disorder (PTSD) on the PTSD Checklist (e.g., cutoff score of 30, as cutoff scores in the range 28–30 are highly sensitive to the presence of PTSD) (Lang et al., 2012; Wilkins, Lang, & Norman, 2011).

Regarding behavioral and criminal risk, the majority of RNR TSTs (84%) included clients with a quadrant rating of 3 (moderate to high risk of reoffending/moderate to low needs and moderate to low functioning) or 4 (high risk of reoffending/high needs and low functioning) by their clinician, indicating a high level of risk across both behavioral and criminal risk domains. Across the eight criminogenic risk domains summarized on the RNR TST,

TABLE 1 Demographic and clinical characteristics (*n* = 55)

Variable	n (%)
Gender	
Female	17 (31%)
Male	38 (69%)
Mean (SD) age (years)	37.02 (9.87)
Age (years)	
18–25	4 (8%)
26–35	24 (45%)
36–45	15 (28%)
46–55	6 (11%)
56+	4 (8%)
Ethnicity	
Non-Hispanic	24 (92%)
Hispanic	2 (8%)
Race	
Black/African-American	16 (30%)
Caucasian	35 (66%)
Other[a]	2 (4%)
Risk–need assessment utilized	
LSI/CMI	3 (6%)
COMPAS	43 (90%)
No formal tool used	2 (4%)
Report of documented mental health diagnosis (yes/no)	
"Yes"	42 (79%)
Report of documented substance use disorder diagnosis (yes/no)	
"Yes"	33 (62%)
Mean PTSD (PCL-C) checklist score (SD)	39.83 (18.64)
RNR quadrant rating by MISSION-CJ clinician	
Quadrant 1	2 (4%)
Quadrant 2	6 (12%)
Quadrant 3	10 (20%)
Quadrant 4	33 (64%)

Abbreviations: COMPAS, correctional offender management profiling for alternative sanctions; LSI, level of service inventory-revised; MISSION-CJ, "maintaining independence and sobriety through systems integration, outreach, and networking-criminal justice; PCL-C, PTSD checklist-civilian; PTSD, post-traumatic stress disorder.

[a]Native Hawaiian/or Other Pacific Islander, American Indian.

TABLE 2 Clinician ratings of eight criminogenic risk factors (*n* = 55)

Measure	*n* (%)
Antisocial behaviors	
Low	9 (24%)
Medium	14 (37%)
High	15 (39%)
Antisocial personality patterns	
Low	12 (36%)
Medium	9 (28%)
High	12 (36%)
Antisocial cognitions	
Low	9 (24%)
Medium	17 (45%)
High	12 (31%)
Antisocial peers	
Low	11 (33%)
Medium	11 (33%)
High	11 (33%)
Family/marital relationships	
Low	13 (36%)
Medium	10 (28%)
High	13 (36%)
Employment/education	
Low	15 (33%)
Medium	19 (42%)
High	11 (25%)
Leisure and recreation	
Low	10 (22%)
Medium	21 (46%)
High	15 (32%)
Substance use	
Low	8 (17%)
Medium	9 (19%)
High	31 (64%)

there was generally an even distribution of low, medium, and high risk (see Table 2). Sixty-five percent of the RNR TSTs included clients rated as high risk in the substance use domain.

To assess acceptability and usability, RNR TSTs were rated for overall completeness and for complete identification of services/interventions for all areas of need for each client by evaluation staff. Table 3 displays these ratings along with the IRR statistics for each variable. Overall, about 70% of clinicians had a semi-complete to complete plan. Approximately 25% of all RNR TSTs were barely complete. Inter-rater agreement on overall completeness of the RNR TST was high among evaluation staff ($\kappa = 0.91$). Additionally, clinical staff were able to identify services/interventions for most areas of need for their clients, with 67% having a comprehensive plan or a somewhat complete plan. The IRR rating regarding completion of areas of need was high between evaluation staff ($\kappa = 0.89$).

To assess clinical utility, we examined the timing of the completion of the RNR TST. Clinical and RNR guidelines emphasize the importance of developing a treatment plan early in treatment (Gaba et al., 2018). Therefore, we categorized the utility of the RNR TST based on when the clinician completed the RNR TST, either before or after release from incarceration. Of the plans analyzed, 71% of RNR TSTs were completed pre-release, while 29% were completed after the client had been released ($U = 42.00$) (see Table 3).

Table 4 includes comparisons between the COMPAS risk score and the clinician's report of risk based on the COMPAS on the RNR TST. The two measures (i.e., COMPAS and RNR risk) showed a high rate of concordance (ICC = 0.76, $p < 0.05$). Of note, for both measures, over 90% of clients were rated to be either medium or high risk in their overall risk of recidivism.

3.2 | Qualitative results

Participants in the qualitative portion of this study were clinical case managers ($n = 7$), peer support specialists ($n = 4$), and supervising staff ($n = 3$) providing services within the re-entry program. Among the 21 re-entry clinical staff recruited, 67% ($n = 14$) participated in the focus group. A majority of participating staff had obtained at least a master's degree (67%) and worked in this re-entry program for an average of 18 months prior to the interview. Thirty-three percent of participating staff were African-American and 67% were Caucasian. Sixty-seven percent of staff reported receiving prior training on RNR principles. Consent to record the focus group was obtained from all clinical staff.

The results from the qualitative focus group with MISSION-CJ case managers, peer support specialists, and clinical supervisors revealed 11 independent themes, which were grouped into three central categories: (1) acceptability, (2) usability, and (3) utility. The central themes are grouped by each category and described in detail in the following sections. Themes with sample quotations from the focus group are provided in Table 5.

3.3 | Acceptability

3.3.1 | Completion rate and timing of completion of the RNR TST

Focus group participants reported completing RNR TSTs for roughly 60–70% of their clients. They reported that they would informally start the RNR TST plan pre-release, but formally complete the plan once the client was released. They engaged in this practice for several reasons: (1) they did not want to interfere with any other pre-release programming or treatment planning; (2) they did not want to waste time and resources completing a plan for a client who may drop out prior to or at release; and (3) owing to practical barriers to completing documentation in the correctional facility (for more details, see the section on 'Institutional barriers to completing the RNR TST' later).

TABLE 3 Overall level of completeness & identification of targeted interventions (n = 55)

Variable Level of overall treatment plan completeness	Rater 1 [n (%)]	Rater 2 [n (%)]	Cohen's Kappa (κ)	
Complete	14 (25%)	15 (27%)	0.91	
Semi-complete	29 (53%)	26 (47%)		
Barely complete	12 (22%)	14 (26%)		
Target intervention identified for each area of need				
Yes all – comprehensive	22 (40%)	22 (40%)	0.89	
Yes all – not comprehensive	15 (27%)	15 (27%)		
Some	17 (31%)	17 (31%)		
None	1 (2%)	1 (2%)		
	Completion pre-release (n = 35)	Completion post-release (n = 14)	Test statistic	p-value
Mean time (days) to complete risk–need–responsivity plan from enrollment (SD)	38.14 (35.13)	133.29 (62.82)	U = 42.00	< 0.001

TABLE 4 Reliability of risk of reoffending ratings between clinicians and Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) assessments

Variable	Clinician Rating	COMPAS risk score	Intraclass correlation coefficient (ICC)	p-value
Risk of reoffending			ICC = 0.76	<0.001
Low	1 (6%)	2 (4%)		
Medium	11 (33%)	11 (32%)		
High	16 (61%)	15 (64%)		

3.3.2 | Training needs and case consultation using the RNR TST

Focus group participants noted several training and consultation needs in using the RNR TST. First, participants noted a general lack of knowledge about how to complete the RNR TST, its requirements, and the information needed for each section of the plan. They also noted that "buy in" from parole and other community providers on the RNR TST could help motivate them to complete RNR TSTs early in treatment and update them regularly. Participants also wanted more training on how to properly integrate past risk assessment findings into the RNR TST in order to better identify the appropriate interventions to address their client's current recidivism risks.

3.3.3 | Institutional barriers to completing the RNR TST

Several barriers were noted to completing and reviewing a RNR TST. In particular, participants noted the lack of computer access in facilities, a significant problem because the RNR TST is a fillable pdf form, best completed on a computer. Those participants who did not have computer access would complete the RNR TST with paper and

pencil, where many of the fields or drop-down menus were not visible, and there was not enough space to write in needed details. To avoid this barrier to usability, some participants reported that they would complete the RNR TST after they left the correctional facility. They reported this as a barrier to ease of use, and timely completion of the RNR TST.

Additionally, participants reported that their clients were often engaged in other facility-based programming simultaneously. These other programs had their own treatment plans, documentation, and so on. To avoid burdening the client with yet another treatment plan and documentation, clinicians opted to integrate information from these other treatment plans and programming into an informal RNR-informed treatment plan, most often prior to release. Some asserted that this approach helped to them focus on building rapport with clients; they also feared that formally introducing a treatment plan would negatively impact rapport.

3.3.4 | Recommended improvements to the RNR TST

Participants requested changes to the RNR TST to make it more client-centered and user-friendly. For example, they suggested adding a section to the RNR TST to provide clients with an opportunity to list their own goals and objectives, in their own words. In addition, participants suggested a shorter format could enhance acceptability, usability, and utility, and reported that such a change would make them more likely to complete and review the RNR TST with clients. They also suggested a format change to better track progress, including an additional section for progress updates, which could facilitate the completion of updates to the RNR TST.

3.4 | Usability

3.4.1 | Using the RNR TST to address criminogenic risk

Focus group participants reported that the plan was sufficient in identifying a client's criminogenic risk and was used as an internal team document to identify both criminogenic and psychosocial risks and needs. However, participants indicated that they did not use the RNR TST when working with a client to address the risk itself. For example, they would not pull out a copy in a session when they were discussing an area or concern. Instead, they would informally integrate information summarized and contained in the RNR TST into counseling sessions.

3.4.2 | Client-centered and community barriers to completing the RNR TST

Team members reported that the period immediately following release was hectic, with a lot of time spent helping the client with basic needs like housing, food, clothing, health benefits, and meeting initial parole stipulations. As such, securing these basic needs in the community took priority over formally completing and reviewing the RNR TST.

Participants also stated that the clients were often quite guarded at the start of treatment and noted that it took several sessions to build a trusting client–therapist relationship, which they found to be necessary to effectively complete the RNR TST. Hence, another factor in completing the RNR TST was whether participants felt they truly "knew" the client and had an accurate sense of current criminogenic and psychosocial risks and needs.

T A B L E 5 Qualitative themes

Acceptability	
Theme	Sample quotations
Completion rate and timing of completion of the RNR TST	"I complete post-release, because more than half of our clients usually relapse when they come out, so we can get some in-depth information once they are out in the community to use for completing the plan. Also, if people drop out while they're in [prison], you gotta complete an RNR and you got no client." (Case manager)
Training needs and case consultation using the RNR TST	"For me, it's kind of challenging to tie in the RNR with the general summary of the case, because the two really do not line up. Because the RNR is so different from what we are working on in terms of the overall summary of what the client is doing in the community. Some of my clients have been in the prison for 5 years, and they do the COMPAS as soon as they enter the prison, so that info is not really relevant when I start working with them." (Case manager)
	"Trying to connect those COMPAS reports would be helpful. For me, I would have a lot more buy-in for the RNR if I knew it was going to be looked at by others. For me at this point, it is just a document for me and my team and my client to see where we are at. If I knew the agent or other agencies we refer people to would be looking at this, I would develop it differently. If there was more buy from other parties involved in this process, I would have more buy-in myself, as well as our gentlemen in this process." (Case manager)
Institutional barriers to completing the RNR TST	"Starting with the prison, they were trying to get us access to computers at one point, where we could type the plans up in front of the client, but that didn't happen, so now we have to hand-write them. And, it's not a one-part process, sometimes it can take up to three meetings with the clients [to complete], because it's very detailed." (Case manager)
	"I think the clients have a lot of paperwork they are already doing, ... so, we don't want to compound or overflow what they're doing..." (Case manager)
Recommended improvements to the RNR TST	"Maybe the way it's arranged. I'm looking at the mental health section, and it's like, describe current treatment, describe past treatment, describe past regimen, describe current regimen, etc. Can we just have a mental health history section where we describe current and past treatment?" (Case manager)
	"Well, usually in a treatment plan the client is able to come up with their own goals, but in this RNR tool the client cannot put their goals in their own words, like in a regular treatment plan." (Case manager)
Usability	
Theme	Sample quotations
Using the RNR TST to address criminogenic risk	"I don't use the RNR. For me, I address that [criminogenic risk] in the structured sessions I do with the client. I use those sessions to address what I identified in the RNR, so that way they [client] can see the pattern behind [their] criminogenic behavior." (Case manager)

T A B L E 5 (Continued)

Usability	
Client-centered and community barriers to completing the RNR TST	"Another barrier is … it takes time to build trust with them. I had a guy today who we have been working with for a while and he is now just getting comfortable with us, so getting information is very challenging" (Case manager)
	"When we come back [to work with our clients] in the community, being in the community working with the other clients takes time away from completing the plans. It can be difficult getting back to the computer to formally complete." (Case manager)
Challenges to using the RNR TST in clinical practice	"I'm having difficulty in kind of connecting the [COMPAS] scores with the portion of the RNR their supposed to connect too. That's the biggest hurdle that I'm finding with the RNR, not being able to accurately input those COMPAS scores." (Case manager)
	"The inmates when they are building trust in you, they tell you the COMPAS is not truthful, and they try to minimize their symptoms, because they think it will lead to extended time. So, you can try and parcel out some of that [risk] information, but most of it is not directly relevant to what their working on as far as recovery, 'cause they minimize their responses in their COMPAS interview. So, they're more honest with us up front." (Case manager)

Utility	
Theme	Sample quotations
Function of the RNR TST in MISSION-CJ	"It's a road map to work with the clients to outline their goals and things they would like to work on in terms of their sobriety and mental health, because we are trying to help these individuals reintegrate back into society. It's a road map for the MISSION program." (Case manager)
Reviewing the RNR TST with clients	"When they are on the outside, that's when the reality hits, so I like to review the plan with clients 45–60 days after release, especially for those who stray and do not want to stick with the program. We go over how things are progressing for them, how far off they are from their goals, and what things are not going well to try and make sure we are on target and to support them." (Case manager)
Reviewing the RNR TST with parole officers	"I'm not against sharing the plan with parole. In most cases from what I've seen the parole officer doesn't seem that interested in receiving the plan. The parole agent is happy as long as clients are following all their stipulations and staying sober." (Case manager)
	"It's been really good and worked really well because we have the parole agents on the line. What I have learned is that with some of the information the client [has] shared with us, and we shared [it] with the parole agent, they were not aware of that [information]. It is insightful for the parole agent to understand where the client is at, and they actually have taken different approaches with the clients on the calls and built better relationships with these clients, so they [the clients] are not as fearful when they go into parole." (Case manager)

(Continues)

T A B L E   5   (Continued)

Utility	
Strengths of the RNR TST when working with clients	"Detail is good, and looking from [the] client's perspective, I've heard clients say after they review the plan, 'Whoa I have never had anybody type it up like this before and it's true'." (Case manager)
	"It's a lot of information and the eight risk domains help identify the problems. The big four, identifying them usually leads to recovery and identifies what path clients would want to go down. [The plan] identifies risk, anticipated, so we can deal with risks effectively." (Case manager)

Abbreviations: COMPAS, correctional offender management profiling for alternative sanctions; RNR TST, RNR treatment planning support tool.

3.4.3 | Challenges to using the RNR TST in clinical practice

Participants noted that the main difficulty in utilizing the RNR TST is getting up-to-date risk–need assessment scores. They noted that in this program, they only had access to risk–need assessment scores that were obtained at entry into the correctional facility. The scores could have been several years old. In addition, participants noted many of their clients downplayed their risk during their COMPAS assessment for fear that if they responded accurately, their responses could potentially lead to negative consequences (e.g., denial of parole). These concerns impacted clinician's perceptions of the utility of using the COMPAS risk score to inform the plan, and further complicated how they used the actuarial risk assessment tool to inform the current RNR TST. Lastly, participants noted that they did not understand how to transfer scores from the validated risk assessments to the RNR TST (e.g., how the scores translate from one tool to the next), making it challenging for clinicians to use the tool.

3.5 | Utility

3.5.1 | Function of the RNR TST in MISSION-CJ

All focus group participants recognized the RNR TST as a treatment support guide designed to identify the client's goals and objectives throughout the course of treatment. Specifically, clinical team members correctly stated that the plan focuses on identifying goals and objectives to treat clients' co-occurring disorder as they reintegrate back into the community from jail or prison. Participants also noted the RNR TST serves as a "road map", outlining the course of treatment for clients throughout MISSION-CJ services.

3.5.2 | Reviewing the RNR TST with clients

Focus group participants reported that they did not typically review the RNR TST formally with clients. Instead, they utilized informal check-ins and discussions to identify goals and objectives related to their client's risk and needs and to track a client's goals. Focus group participants noted that these informal check-ins occur often, but do not always utilize the RNR TST document due to concern that using the formal document may impact rapport or overwhelm the client (due to length, clinical nature, etc.). Instead, to foster their work with participants, they found it more effective to summarize the risk levels, goals, objectives and interventions in the formal RNR TST document into client-centered informal discussion.

3.5.3 | Reviewing the RNR TST with parole officers

For their clients who were on community supervision, participants indicated to staff that the community supervisor did not want a copy of the RNR TST, but rather was interested in quick and regular updates regarding the individual's substance use and compliance with parole conditions. Accordingly, many focus group participants noted that they do not formally share the RNR TST document with parole, but rather were in constant communication to discuss risks, goal, objectives, and interventions outlined in the RNR TST. However, those who did share the document noted greater collaboration with the supervisor. For example, one participant noted that the RNR TST informed the parole officer of client information that he had not been previously aware of, which enhanced understanding of the client's needs, increased collaboration between the clinician and parole officer, and changed the parole officer's approach to the client, leading to successfully addressing the client's needs.

3.5.4 | Strengths of the RNR TST when working with clients

Participants noted the detail captured in the plan as a strength because it nicely outlines the client's criminogenic risk and needs, co-occurring disorder history and needs, and goals and objectives for treatment. They found it helpful in the treatment planning process and noted that the plan and progress updates could be used to motivate and engage clients. Participants also emphasized the plan's strength in helping them link targeted interventions to the eight criminogenic risk domains. Clinicians indicated that this helped them better anticipate any setbacks or early warning signs of recidivism and to address them appropriately.

4 | DISCUSSION

The mixed-method findings from this study provide useful insights into one program's attempt to integrate criminal justice and behavioral health concepts in order to support individuals re-entering society after a period of incarceration, with the goal of improving quality of programming. This analysis sought to examine the acceptability, usability, and utility of implementing the RNR TST, and its methodology provides preliminary results that help further the literature on the feasibility of this type of tool. Specifically, this feasibility study improved our understanding of how a tool like this could be used by behavioral health providers to enhance the treatment planning process's ability to identify and implement interventions matched to the client's risk and needs, thereby enhancing recovery and reducing recidivism risk. To our knowledge, this is the first focused effort assessing this type of treatment planning tool and which gathers feedback from behavioral health providers on the barriers and facilitators to integrating the RNR framework into behavioral health practice with justice-involved adults who have CODs.

4.1 | Acceptability

Participants reported that they liked the tool and completed an RNR TST for most of their clients (70%). Although the focus group participants found the RNR TST acceptable, they had feedback on two components identified as key to acceptability (Sekhon, Cartwright, & Francis, 2017): burden and self-efficacy. They reported that the time required to complete the RNR TST was perceived as a burden. There was also some indication there were concerns about self-efficacy, regarding their self-confidence in their ability to translate and integrate information from the risk–need assessment to the RNR TST. To address burden, clinicians suggested making the tool shorter. To address

self-efficacy, they suggested additional training to integrate didactic RNR training, as well as experiential and case-based training to help become more confident in formally discussing criminogenic risks with clients.

4.2 | Usability

Treatment planning in behavioral health is a mainstay of service delivery (Peterson, 2019) that is a complex, highly individualized process; therefore, it was important to evaluate the usability of the RNR TST to adequately develop a treatment plan, track progress, and summarize risk–need information gathered from risk–need and psychosocial assessments. Even though clinicians reported a lack of self-efficacy in whether they could accurately interpret risk data, our quantitative findings generally support the idea that they can interpret these data. For example, when interpreting criminogenic risk, there was a high level of agreement between the COMPAS risk scores and the clinician's report of risk based on the COMPAS on the RNR TST, suggesting that staff were able to use the RNR TST to accurately capture this information.

However, our data suggested that problems with the usability of the RNR TST may have been a barrier to feasibility. To assess usability, we examined the content and completeness of the RNR TSTs. In examining completeness, we observed that over 50% of plans were at least semi-complete. On the other hand, roughly 25% of plans were barely complete. The intervention section, where a specific intervention is matched to a specific criminogenic risk domain and risk level is identified for the each of the client's eight criminogenic risk factors, contained areas where the information was more often incomplete. In the experience of the clinician authors of this paper, behavioral health professionals often struggle with how to write interventions in treatment plans. Thus, the finding that the intervention section was lacking was not entirely surprising; however, our data also point to a path for systemic quality improvement. Our qualitative findings suggest that deficiencies in treatment planning may be related to the burden of administrative documentation and the difficulty in translating risk–need assessment data to treatment planning practice. The literature indicates that it is common for behavioral health providers to report administrative burden in documenting treatment planning (Dragatsi, Norian, & Minkoff, 2019), and thus makes it even more critical that a tool like RNR TST should provide a template for a treatment plan.

4.3 | Utility

Qualitative analyses indicate that the behavioral health providers found that the RNR TST had clinical utility in helping them develop treatment goals and objectives, and identify interventions matched to the clients' individual level of risk and need. Participants generated innovative suggestions on ways in which the RNR TST could be improved to enhance clinical utility. First, they suggested revising the tool to include sections where clients could write in their own words their goals and objectives per risk domain. Second, they suggested ways to revise the tool to make it more user-friendly and interactive for use as a clinical "tool" to motivate and engage the client. For example, participants suggested integrating progress and success in a more visual and concise way. Last, some mentioned considering making adaptations to the tool or the treatment planning process to better engage community supervisors, which they thought would enhance utility across these systems.

A major theme identified as barriers across these domains (acceptability, usability, and utility) was a lack of practical training, including cross-training, and periodic refresher training of both behavioral health and criminal justice providers (separately and together), as well as regular supervision and oversight. In particular, they indicated the need for practice guidance on how to effectively communicate criminogenic risks to clients, as well as ways to formulate plans to mitigate risk of recidivism, especially in communities with a dearth of RNR-informed treatments and support, and how to appropriately share treatment plans with parole/probation. Qualitative interviews

indicated that regular case discussions could also help address barriers perceived by program staff regarding developing treatment plans and completing the RNR TST.

5 | LIMITATIONS

Our interpretations of the findings are limited by the overarching limitations of the study. This was a programmatic quality improvement study that was exploratory in nature and did not assess the clinical effectiveness of the tool in shaping outcomes. The focus was to preliminarily examine acceptability, usability, utility, and, ultimately, feasibility of the tool, as well as identify enhancements or further refinements to the RNR TST in order to increase its utility. First, although both the quantitative and qualitative data showed some promising results and identified areas for further improvement in the RNR TST form and process, study findings may not be generalizable due to the small study sample and the fact that this was not designed as generalizable research with comparison groups and outcome measures. Second, the RNR TSTs in this study often relied on risk–need assessments that were administered when the client was initially incarcerated (ranging from months to years prior to the completion of the RNR TST). Risks and needs change over time and require reassessment using a validated risk–need assessment periodically to be accurate. Due to the use of potentially out-of-date risk–need assessments, we cannot ensure accurate classification and alignment of services to actual level of risks and needs.

Third, as the field evolves, it is apparent that there is a dearth of appropriate cultural awareness and competence in treatment planning and service delivery for historically marginalized groups within the criminal justice population (Primm, Osher, & Gomez, 2005). The RNR TST attempts to address cultural considerations by including a cultural formulation section, but our review noted that this section often lacked details. Further opportunities to enhance cultural considerations in this type of treatment planning process and tool might help to overcome these limitations. Last, the study did not include the perspectives of community correctional supervisors, program participants, and other behavioral health direct care providers involved in the clients' treatment, such as medication-assisted treatment providers. Also, further information about working with peer support specialists and their role in helping to develop and navigate the treatment recommendations derived from the RNR TST is needed. Therefore, we are unable to assess the tool from these varied and important perspectives.

6 | CONCLUSIONS

Despite the existence of clear and consistent recommendations encouraging the integration of RNR principles into behavioral health treatment for justice-involved individuals with co-occurring mental health and substance use disorders, there are large evidence-practice gaps. Our findings suggest that a treatment planning support tool like the RNR TST has the potential to serve as an effective way to guide RNR-informed treatment planning and better integrate RNR principles in behavioral health practice. As noted earlier (McCormick et al., 2017), many scholars have called for behavioral health and criminal justice providers to cooperate to minimize working at cross-purposes and maximize collaboration. This tool may serve, on a person level, as part of an effort to address this call. The current study also suggests that a shift in thinking, training, and system culture is needed to better integrate criminogenic research and best practices into clinical behavioral health and behavioral health advances in criminal justice supervision.

This study represents the initial stage of a development to improve the integration of the RNR framework in the delivery of behavioral health services for justice-involved adults. Overall, our findings suggest that a tool like the RNR TST can and should be implemented in these settings. Several tool features were identified as being acceptable, usable, and having utility. Although a number of contextual factors affecting acceptability, usability, and utility were noted that would ultimately impact feasibility, several of the modifications suggested from this analysis

have already been made to the tool to increase its ease of use. Further work with behavioral health providers, community correctional supervisors, and persons served is needed to continue to develop and test the tool's impact on outcomes for justice-involved adults with co-occurring mental health and substance use disorders, and collaborative case planning between behavioral health and criminal justice entities. The high-risk nature of the re-entry time frame makes further work in this area an imperative, and this review provides an important step in this direction.

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APPENDIX 1 Qualitative interview guide: Sample areas of inquiry and questions

Areas of inquiry	Sample questions
Acceptability	What do you think of the RNR TST?
	What do you see as possible advantages and disadvantages to using the RNR TST?
	How appropriate is the RNR TST to use with this population? In this program?
Utility	How do you use the RNR TST?
	What did you find useful, if anything, about the RNR TST?
	What did you find unuseful, if anything, about the RNR TST?
Usability	How did you find it to input client information into the RNR TST form?
	When do you use the RNR TST?
	Would you change the tool in any way to make it more user-friendly? How?

Abbreviation: RNR TST, RNR treatment planning support tool.