

# Preface

## Why Do We Need the RNR Simulation Tools?

Over the last decade there has been a growing consensus among academics and practitioners about the importance of using evidence-based practices in the field of corrections. The consensus extends to the need to better align existing practices with known offender and program attributes that will generate better outcomes. Embedded in evidence-based practices is that organizations should: (1) use a valid risk and need assessment tool to identify those factors in an individual that are amendable to change; (2) use cognitive-behavioral programs to address these risk-need profiles; (3) administer programs that are high quality; and (4) focus on recidivism patterns. These are essential elements of the Risk-Needs-Responsivity (RNR) model. RNR is well recognized as a contemporary framework for determining the role of programs in correctional environments (institutional and community). In many ways, this model has revived attention to rehabilitation and the importance of good quality programming. The empirical support for the model along with the lack of progress on recidivism reduction results from punitive or incapacitative models of punishment has led to a broad base of support for the RNR framework.

The RNR framework is more readily accepted but there are three missing components. First, the literature is based on the RNR philosophy that calls for integrating treatment and rehabilitation into the correctional system. What is lacking is an empirical demonstration designed to explore the effects of adopting RNR model on a large scale. Most findings have referred to single study experiments or meta-analysis but have not illustrated the impact on a large scale. Such a demonstration would assess what would happen to recidivism if we took the RNR model to scale—that is, if we expanded the use of risk-needs tools, placed people in programs designed to address risk-need factors, and offered high quality programming—what would be the impact. This “what if” analysis is ripe for simulation models because they provide the mathematical and statistical approaches well suited to illustrate the impact of policy options. In other words, they provide additional empirical support to the notion that it is worth changing sentencing and correctional decisions to

incorporate RNR principles. Discrete event simulation model makes the point even more clear since it demonstrates how changes over times and events (different decision points) can affect the outcomes from the correctional system. It provides the empirical evidence that it is beneficial to change systems and practices through thoughtful consideration of the options available.

Second, the original RNR framework is built on assumptions regarding the relationships among individual criminal justice risk factors, individual needs, and recidivism. The empirical evidence supporting these assumptions is ever-evolving as more research is produced. Of course, not all studies are the same in terms of methodological rigor, measurement of key variables, and generalizability of the findings. But the emerging literature suggests that the original version of the RNR model may need modification as more scientific information becomes available. For example, the first evidence-based practice principle is that high risk offenders should be placed in correctional programming. This follows from the finding that better results are possible for higher-risk offenders. However, this statement does not consider the degree to which individual needs may “trump” criminal justice risk factors, the relevance of non-criminogenic factors such as mental illness and housing stability that may affect success in the community, and key demographic key factors (such as age and gender) that affect offending patterns. The RNR model should recognize it could be higher number of needs and clinically relevant factors that increase the need for more structured programming.

Third, in the “real world” the RNR process is more complicated than it appears. The complexity is probably one of the biggest factors that affect the likelihood that the model can and will be used in practice. The complexity has to do with making decisions that integrate complicated information about the individual offender as well as understanding the pros and cons of each program or service. In other disciplines, years of training are provided to build these diagnostic skills—in the justice system, this type of skill development is not provided. Rather it is assumed that experiential learning (“on the job training”) will suffice. However, the skills to assess complex human condition such as those factors that influence offending behavior, intergenerational substance abuse or criminal behavior, antisocial personality or values, and so on are not necessarily easy to isolate. Answering the question, “what should we do about this?” requires yet another set of skills. Understanding the impact of one decision on processing at other decision points requires more complex information. The complexity of the tasks supports the need for simulation models that support the decisions that individuals or jurisdictions need to make about “who should go into what program?”

This book evolved from many discussions among scholars over the years that are devoted to improving criminal justice policy and practice through integrating evidence and evidence-decision criteria to practice. Faye Taxman has been working on many of the concepts in this book over the course of her career. The notion of exploring how to improve the use of assessment tools for identifying the factors that should be addressed during the period of correctional control has been a theme in her work on seamless systems of probation, reengineering probation, and using evidence-based practices. This is supplemented by the attention to more intricate

decisions such as how to respond to negative behaviors and how to increase compliance with the conditions of correctional control. The growing emphasis on implementation processes (see Taxman & Belenko, 2012 on implementation models) has led many in the corrections field to promote the use of assessment tools and models to drive decisions regarding placement in appropriate programs and services.

Energized by the evidence in support of the RNR model and interested in the possibilities for widespread adoption, the Bureau of Justice Assistance sought to learn more about the correctional impacts if the model were implemented on a larger scale. With their support, several related projects described in the chapters were undertaken with the purpose of determining the ways in which we could (1) build RNR-based tools to support RNR programming for agencies and (2) to understand how the application of these tools would collectively serve to reduce recidivism at the national level.

After the framework for the RNR program simulation tool was developed, the challenge was to determine how the use of this tool across agencies might contribute to significant reductions in recidivism on a national scale. April Pattavina's work in this area was informed by recent developments in computer simulation that would allow for investigation of this issue. Simulation models have recently been used for operations research in health care and criminal justice applications and were appropriate for our work. We seek to first give the reader an understanding of how these techniques may be applied in operational contexts and then use the techniques in our investigation into the recidivism reduction effects of the RNR model.

In conjunction with the evolution of more effective models and tools available for assessing offender risks and needs has been the advancement of information and computing technology that has created opportunities to realize the possibilities for these models beyond a single study or agency. Throughout much of this book, authors were able to take advantage of publically available datasets, such as the Survey of Inmates in State Correctional Facilities, the National Corrections Reporting Program, and the Bureau of Justice Statistics' classic recidivism study for our work in this book. Using the RNR model as a framework, it was possible to use the data sources to measure key RNR concepts, map the processes for treating offenders, and finally investigate the impact of a large-scale implementation of RNR programming on recidivism. We were also fortunate to have partnership with state and local correctional and substance abuse agencies to validate the tool and assumptions. Using the most current simulation techniques, it was possible to assess the impact over time and found that the RNR model holds considerable promise for reducing recidivism.

Simulation models are important tools that are underutilized in research and policy. The attraction of using different types of simulation models was that the issues are often too complicated to design in experiments. This book outlines how to put together a simulation tool, and then use the tool to assess various problems. The "how to" notion of this book is to help others consider the various steps to develop a simulation model. In the course of developing the simulation tools, we learned how to handle a number of challenging data, methods, and theory issues. These challenges are presented to foster a greater understanding of the mystic

involved in creating a simulation model, and how to use data from one model to another. We hope this book helps foster a number of simulation models in the field of justice policies. A few years from now we will know whether we were successful in this goal.

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