

Innovations in Dynamic Risk Assessment: Community Risk Management Through a Desistance Lens

**International Community Corrections
Association**

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Overview

1. Understanding offender change
2. Influencing offender change
3. Measuring offender change
4. Transition model of offender change
5. Crime desistance
6. Dynamic risk
7. What next?

1. Understanding Offender Change

Targeting criminogenic needs

Needs & Recidivism

Criminogenic	(<i>r</i>)	Non-criminogenic	(<i>r</i>)
Procriminal attitudes	.21	Self-esteem	-.02
Criminal associates	.21	Negative emotional feelings (vague)	.08
Antisocial personality	.22	Physical training	.08
Family/marital concerns	.18	Fear of punishment	-.05
School/employment concerns	.15	Conventional ambition	.08
Substance use	.11		

Andrews & Bonta (2006)

Targeting Criminogenic Needs

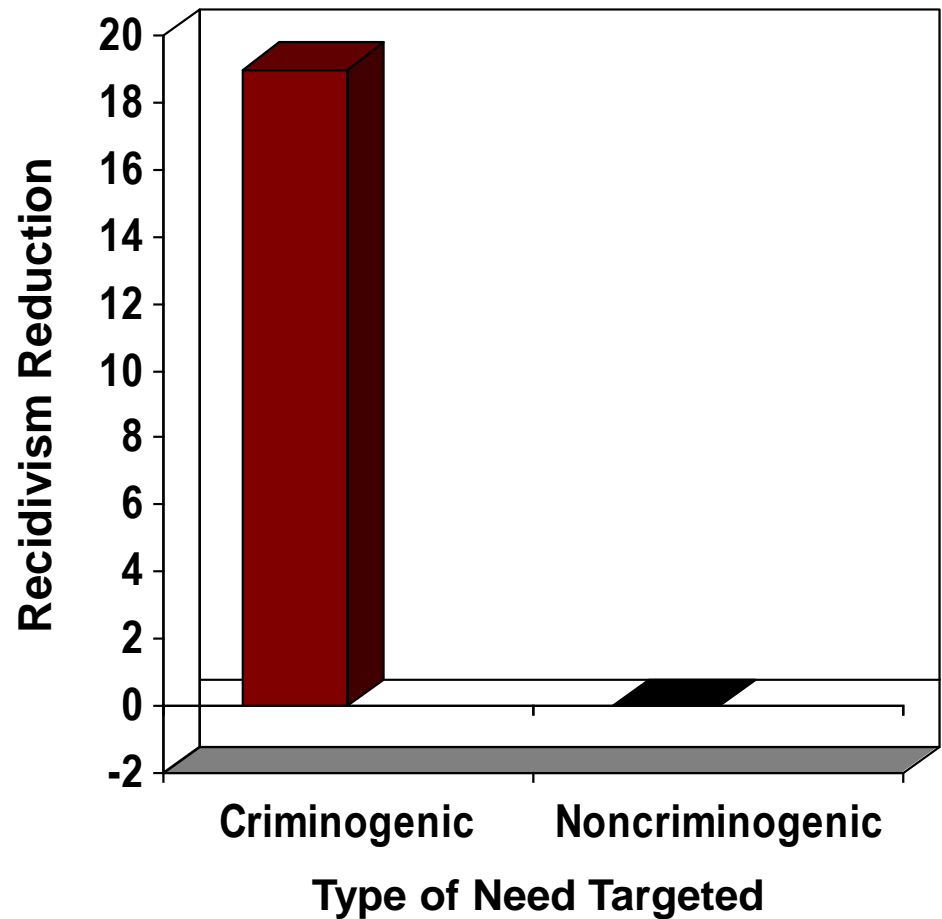
Criminogenic Needs:

$r = .19$ ($k = 169$)

Noncriminogenic Needs:

$r = -.01$ ($k = 205$)

⇒ **Targeting
criminogenic needs
reduces recidivism**



(From Andrews & Bonta, 2006)

Effectiveness by Type of Program

Program Domain Effect on crime % (# studies)

Vocational education	-9.0 (4)
Intensive supervision/treatment	-16.7 (11)
General education	-7.0 (17)
CBT	-6.3 (25)
Substance abuse (eclectic)	-4.5 to -9.3 (95)
Sex offender	-7.0 (6)
Employment	-4.3 (16)

Aos, Miller, & Drake (2006)

Is it worth it?

Intervention	Target	Effect Size
Aspirin	Heart attack	0.03
Offender treatment	Recidivism	0.10
Chemotherapy	Breast cancer	0.11
Bypass surgery	Heart disease	0.15
AZT	HIV/AIDS	0.23
<u>Appropriate</u> offender treatment	Recidivism	0.29
Psychological therapy	Mental health	0.32

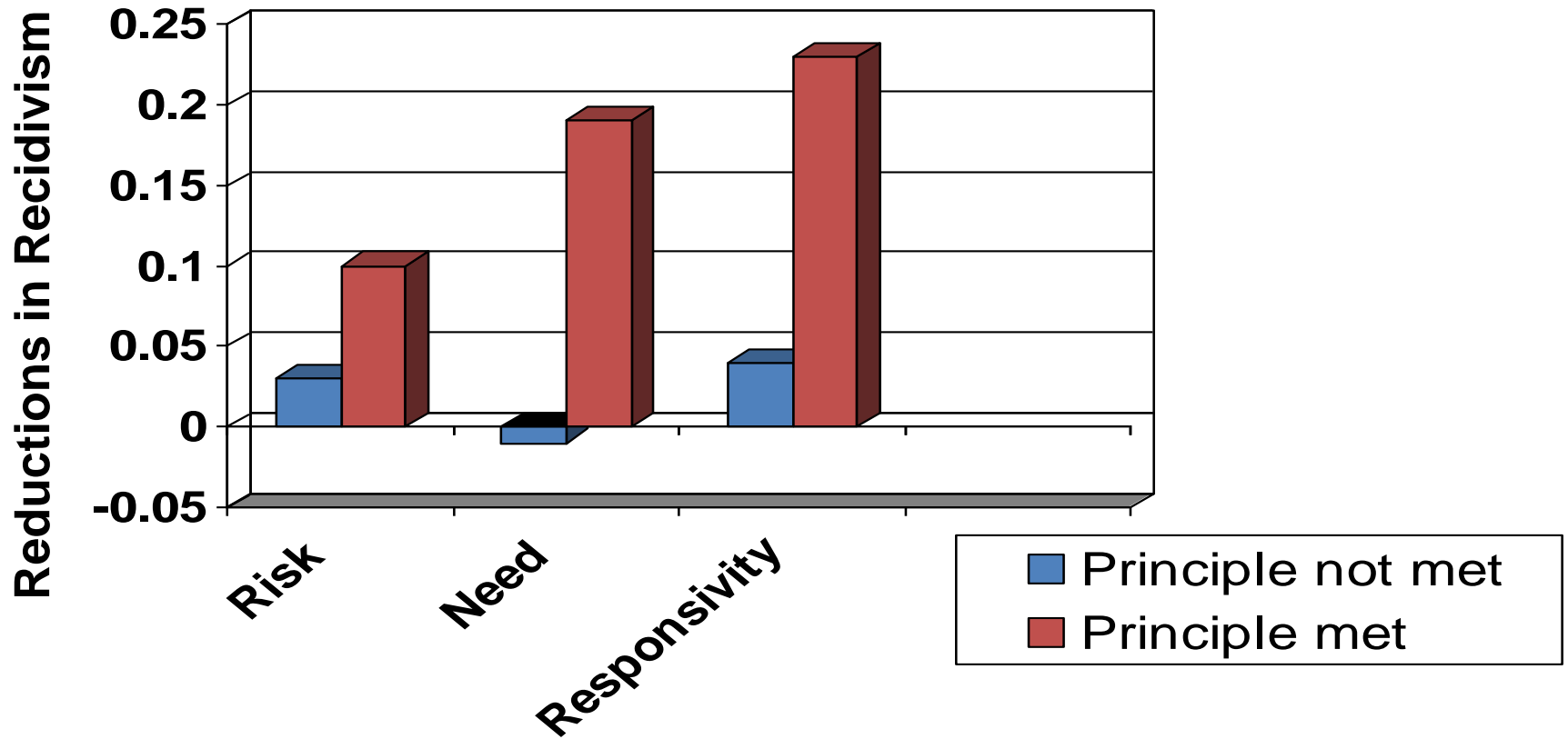
State of the Field

- **Correctional Programming**
 - Appropriate service model
 - Agreement across most countries
 - Meeting RNR yields 28% reductions of recidivism
(Smith, Gendreau & Schwartz, 2009)
 - Still some work to do on program integrity & measurement of offender change

2. Influencing Offender Change

Risk/Need/Responsivity

Empirical evidence for risk, need and responsibility principles



Correctional Programming: Where is the Effect?

Andrews & Bonta (2006)

(374 ES)

- Criminogenic need
 - ($r = .20$)
- Responsivity
 - ($r = .19$)
- Risk
 - ($r = .07$)

Smith, Gendreau & Swartz (2009)

(Review of 21 meta-analyses)

- Criminogenic need
 - ($r = .25$)
- Responsivity
 - ($r = .15$)
- Risk
 - ($r = .17$)

Effect sizes not adjusted for sample size

Influencing Offender Change

- Treatment model (15%)
 - CBT, RNR
- Client factors (40%)
 - Identity, age
- Therapeutic alliance (30%)
 - Quality of working relationship
- Expectancy/hope (15%)
 - Expectancies about continuing crime or not

Effectiveness of CCP

(Overall mean effect size = .08 for 374 studies)

- Modeling .28 (37 studies)
- Reinforcement .31 (15 studies)
- Structured Skill Learning .30 (38 studies)
- Problem Solving .25 (45 studies)
- Effective Disapproval .30 (8 studies)
- Effective Use of Authority .26 (15 studies)

Dowden & Andrews (2004)

Additional Information

- Using more core correctional practices increases effectiveness

Three or more	.35 (27 studies)
One or two	.17 (37 studies)
None	.05 (310 studies)

Dowden & Andrews (2004)

Relationship & Structure

- Being high in both relationship and structuring skills yields the greatest reduction in re-offending, low in both is the least effective

Low Relationship / Low Structuring	.05 (327 studies)
Low Relationship / High Structuring	.25 (34 studies)
High Relationship / Low Structuring	.26 (3 studies)
High Relationship / High structuring	.36 (10 studies)

Dowden & Andrews (2004)

Staff Effectiveness

(PO, community corrections worker)

- Only rehabilitation (soft) – poorer outcome
- Authoritative, punitive (hard) – poorer outcome
- Hybrid – set limits, be supportive (best outcome)

(Skeem, Eno Loudon, Polascheck & Camp, 2007;
Kennealy, Skeem, Manchak, & Eno Loudon, 2012)

Conclusion?

Effectively using these skills results in lower rates of re-offending in clients

3. Measuring Offender Change

Do we know “who” changes?

So, change occurs, but what about
identifying which clients have
changed?

“Offender change is like
pornography, we’ll know it when
we see it”

(Maruna, LeBel, Mitchell, & Naples, 2004)

NIC sponsored review of correctional treatment literature

- Programs
 - Substance abuse
 - Violent offending (excludes DV and SO)
 - Cognitive (Cognitive Self Change, R&R)

Serin, R.C., Lloyd, C.D., Helmus, L., Derkzen, D., & Luong, D. (2013).

Purpose of Review

- Identify studies that measured offender change
- Identify common measure used by the field
- Identify studies that relate offender change (on measure) to outcome (preferably recidivism)

Note: It is of limited utility to have an effective program if your measures lack predictive validity

Findings: Substance Abuse

- No studies were found that link change to outcome
- Addiction Severity Index is correlated with treatment duration (dropout) and recidivism (but change not measured)
- Other measures employed – SASSI, Criminal Thinking Scales, CJ CEST)

Findings: Violent Offending

- 8 studies (n~570) where change scores were reported between controls and treatment group
- Mixed findings for measures – NAS, I7, STAXI
- 3 studies (n~180) where change related to outcome (program performance measure, anger knowledge) – none of the standard scales predicted outcome

Findings: Cognitive Programs

- 25 studies (n~9,300) where change was measured between control and treatment groups
- 5 studies (n~700) where change related to outcome
- Of these, 2 studies predicted institutional infractions
- Predictive scales – Criminal Sentiment Scale, Eysenck IVE scale

What changes predict?

26 significant effect sizes from 378 studies

Intra-individual changes:

attitudes & beliefs

associates

negative emotionality

social support

substance misuse

Summary

- Programs appear to work, but we are less clear for whom.
- Current pre/post measures, for the most part, lack predictive validity
- Perhaps new measures or a new model of offender change are required?

4. Transitional Model of Offender Change

The Transitional Model

- Transition
 - Between INVOLVEMENT in crime and EXITING crime
 - Involves changing THOUGHT PATTERNS

The Age-Crime Curve

Research consistently shows:

- Criminal behaviour peaks in late adolescence/early adulthood
- Shows a sharp decline after age 30

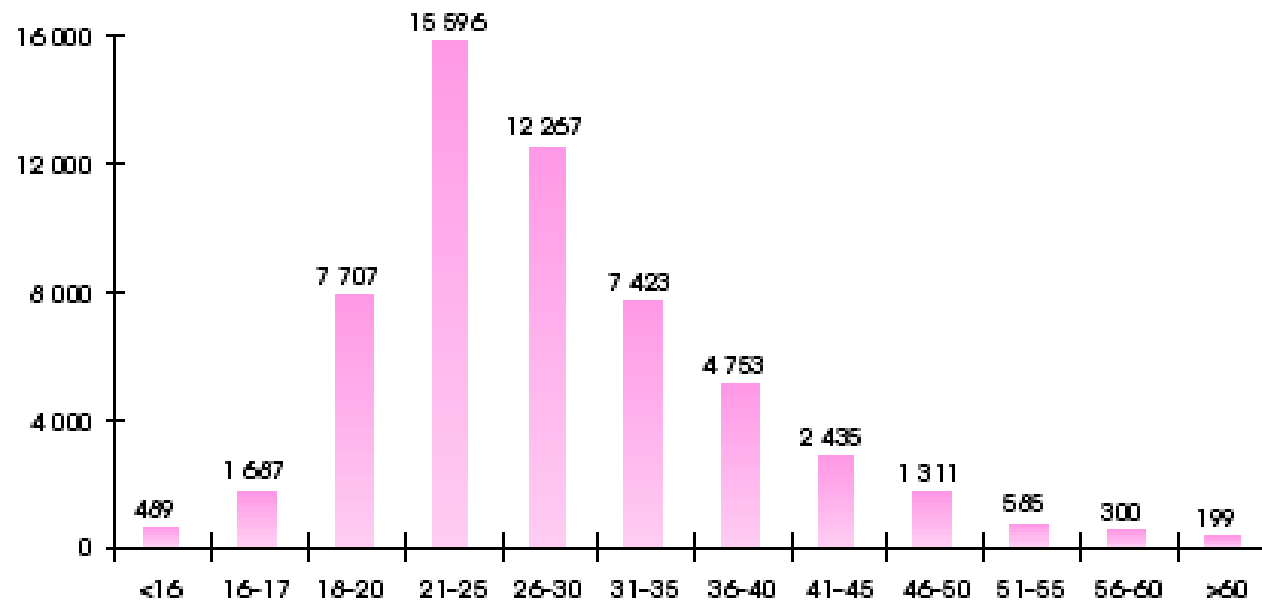
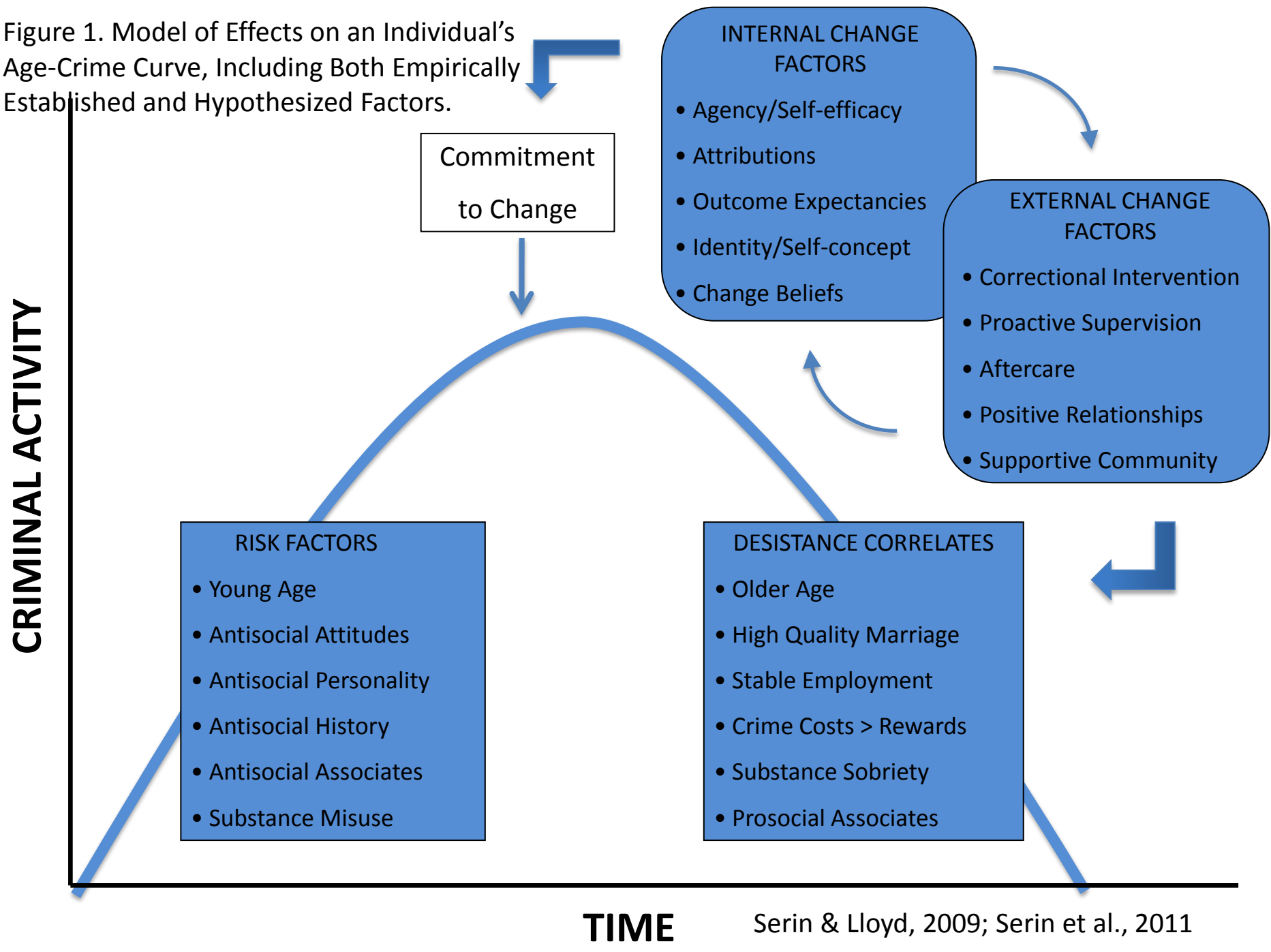


Figure 1. Model of Effects on an Individual's Age-Crime Curve, Including Both Empirically Established and Hypothesized Factors.



The Change Process

- The optimism of inmates
 - 80-95% of inmates upon release stated that they had decided to desist
 - 20 months after release, 60% of the sample reported re-offending

(Burnett, 1992; Healy & O'Donnell, 2008)

Intrapersonal Change

- If offenders are all motivated, what separates those who succeed? (Burnett, 1992; Dhami et al., 2006)
- Is there a threshold of motivation?
- What internal shifts help offenders embrace change & transform themselves to give up crime?

Intrapersonal Change

- What attitude shifts underlie desistance?
- What self-beliefs may stimulate....?
 - establishing new goals
 - adopting new behaviors
 - changing old habits
 - sustaining effort to persevere
 - maintaining new behaviors once established

The Internal Difference

- Agency
- Redemption Sequences
- Explanatory style

Agency

- “I’m smart enough to learn skills and anything else I need to learn to help me live a crime-free life.”
- “When I try to stop myself from doing crime, there are too many things that stop me from doing what I’m trying to do.”

Belief = Process

- “When someone tries to stop committing crimes, does it happen all at once, or does it take several steps before they can finally stop committing crimes?”

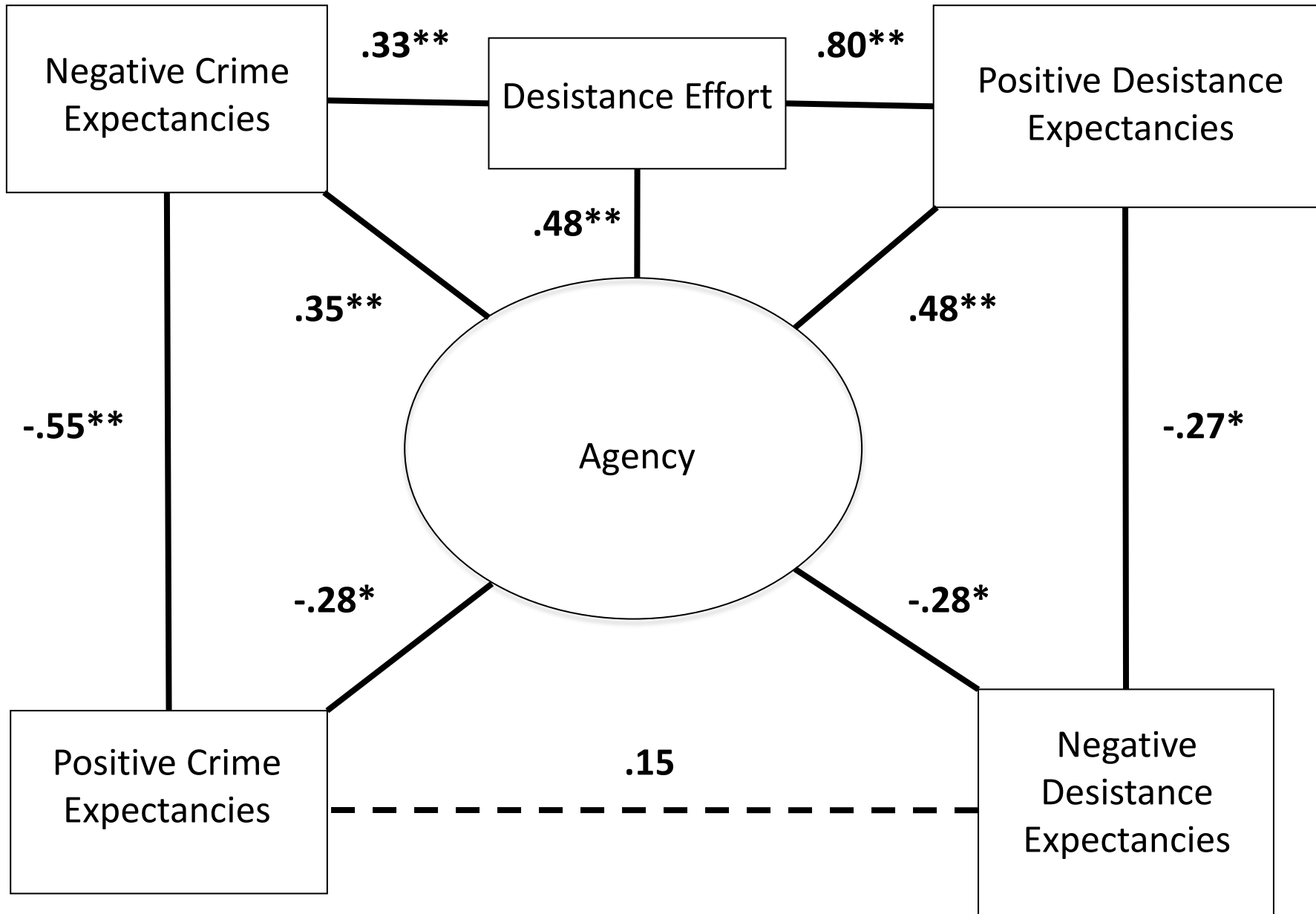
Crime Expectancies

- Positive
 - “You will feel a good thrill or excitement”
 - “You will have a better life”
- Negative
 - “You will get hurt or killed”
 - “You will lose respect from others”

Desistance Expectancies

- Positive
 - “You won’t worry about prison or arrest again”
- Negative
 - “You won’t achieve your goals”
 - “You will live on lower income, at least for a while”
- Effort Expectancies
 - “You won’t be able to give up, even when things seem hopeless”

Lloyd & Serin (2012); * $p < .01$; ** $p < .001$



Future Directions

- Toward a comprehensive understanding of offender change
- Examine the nature of change & the ability to influence change

Recent Research

Criminal thinking top predictor (Healy, 2010)

Personal antisocial attitudes more important than criminal associates or anticipated disapproval (Ngo et al., 2010)

Hope related to risk (Martin & Stermac, 2010)

Co-participant influence (Lloyd, Hanby & Serin, 2013)

5. Crime Desistance

Key Desistance Research

- **Liverpool Desistance Study** (Maruna, 2001)
 - In-depth interviews with 65 British ex-convicts
 - Comparison between active offenders and desisting offenders

Contributions to the Field

- Research interest in desistance is not new
- Rigorous testing/measuring of important psychological constructs
- Fit these into a testable model of offender change

Stigmatization Versus Re-integration

How can we assist offenders' transitions
toward a pro-social identity?

Uggen et al. (2006)

How would a desistance-focused CJS operate?

- View desistance as an ongoing process
- Try to make periods of non-offending “stick”
(Maruna et al., 2004)
- **Actively re-integrate offenders via ritual** (Maruna, 2007)

How is it different from current practice?

- Desistance places a much greater emphasis on working with offenders to build skills and leverage their strengths to encourage them to give up criminal lifestyles.
- Desistance looks for positive ways to work with offenders to promote changes, rather than being limited only to strategies that are designed simply to prevent negative (criminal) behavior.

Crime Acquisition Vs. Desistance

- The characteristics and circumstances that influence people to desist from crime are in many ways different from the ones that got them involved in crime or led them to continue committing crimes.
- The process of *desistance* is different from the process of *initiation* into criminal behavior or the *persistence* of criminal activity.

Desistance as a Process Not an Event

- Giving up crime is a process that takes time and effort.
- Desistance is a process of adding to a person's skills and enhancing their strengths in positive ways.

Desistance Vs. Risk

- The factors that influence crime desistance are not simply the absence of risk factors.
- Giving up old criminal friends does not automatically teach someone how to find new, non-criminal relationships or how to participate in new kinds of activities. These are skills that need to be developed.

Turning Points

- Researchers (Laub & Sampson, 1993) have identified certain situations that move an active offender to desisting; these have been called turning points
- Marital status and employment stability seem to provide an element of social control that leads to successful desistance, even for those with early onsets of criminality

Enhancing Desistance

- Protective Factors:
 - Age (Francis & others, 2007)
 - Quality Marriages & Employment (Sampson & Laub, 2005; Uggen, 2000)
 - Other Prosocial Relationships (Burnett & McNeill, 2006)
 - Education (Petras & others, 2004)
 - Volunteerism (from **self** focus to **other** focus) (Kosterman & others, 2005)
 - Agency (belief in ability to change) (Maruna, 2001; Sampson & Laub, 2005)

Transition to the Community (Reentry)

- The problem for people re-entering the community after incarceration is that they need to develop protective factors to insulate them from crime.
- Making this transition is a profoundly challenging task.

Re-integration Ceremonies

- Important elements:
 - An official member of the system recognizing the gains the offender has made
 - Must be deserved/merited by the offender
 - Formal and professional

(Braithwaite & Mugford, 1994)

Sustaining Desistance

- For offenders to maintain change
 - Social experiences must AFFIRM the new prosocial identity
 - Best if done by persons in authority
 - HOWEVER, ex-offenders must also develop strong sense of self in spite of potential stigmatization

(Burnett & Maruna, 2006; Harding, 2003)

Coercion versus Support

- Coercive techniques are generally related to **INCREASES** in crime, whereas social support is related to **DECREASES** (Colvin & others, 2002)
- To respect the human change process, occasions where positive achievements are rewarded should **OUTWEIGH** punishment at a ratio of **4 to 1** (Gendreau & others, 1994; Maruna & others, 2004)

6. Dynamic Risk Assessment

Understanding when an parolee
is at increased risk

Risk Status Versus Risk State

(Douglas & Skeem, 2005)

- **Risk status**

- The offender's risk of offense in comparison to other offenders (static).

- **Risk State**

- An offender's propensity to commit an offense at a given time. Changes over time, and in response to intervention.

Development of a Dynamic Risk Assessment Instrument

**Advancing our ability to
differentially manage offenders in
the community**

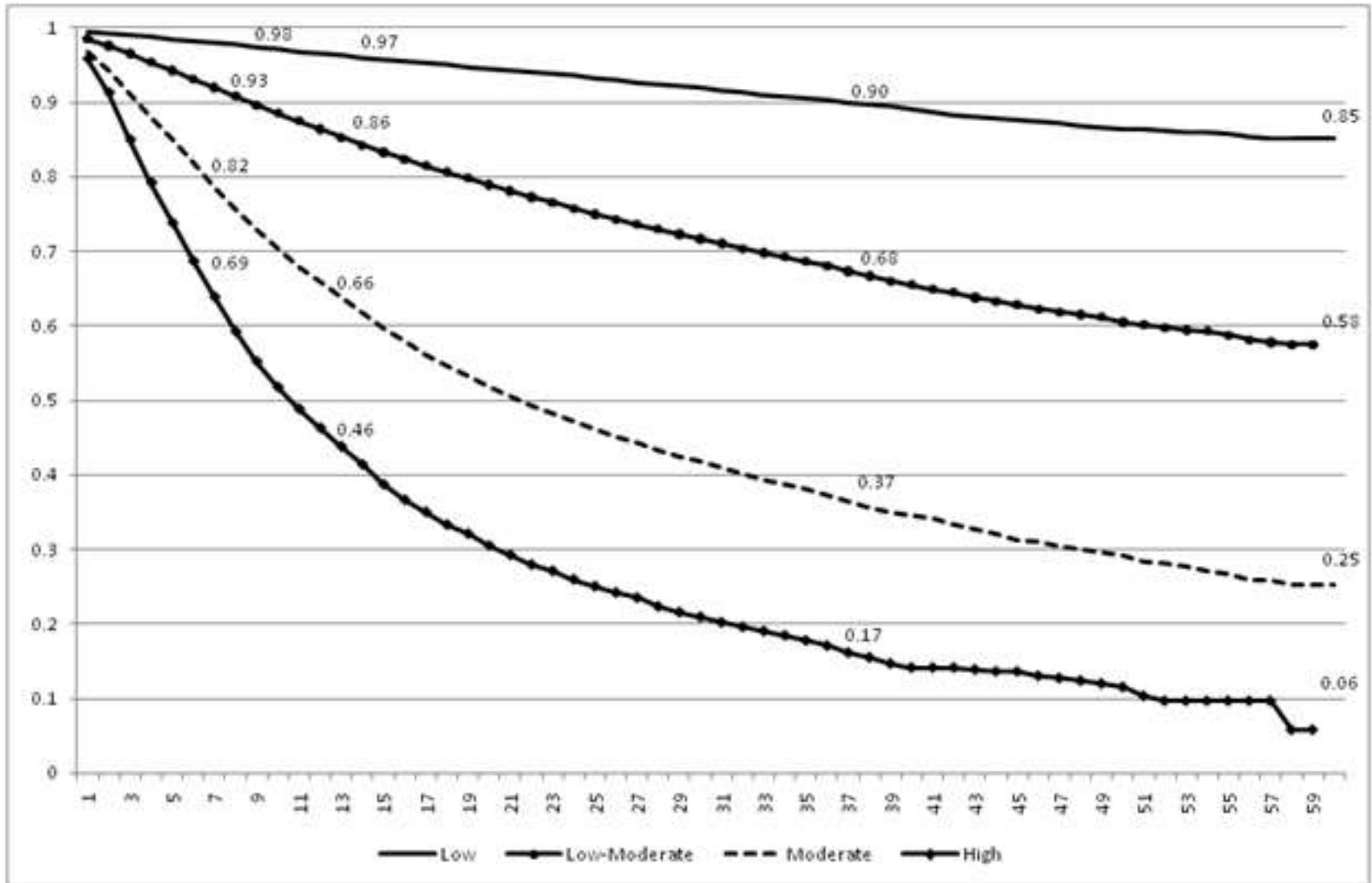
Time at Release and Failure

- 50% of all offenders who fail, do so in the first 3-6 months (Urban Institute)
- Predictors of failure change over time (e.g., at 1 month versus 3 months)
 - Earlier (**triggers**) - substance abuse)
 - Later (**appraisals**) – perceived problem level and global stress

Brown, Amand & Zamble – LHB (2009)

PCRA groups and survival rates

(Johnson et al., 2012)



Linking Supervision to Risk

- Review survival curves - Initial release is time of greatest risk (honeymoon)
- BOI research (58% of cases looked “good” at time of release, but then deteriorated)
- Need to identify changes in dynamic risk and respond accordingly

Rationale

- Risk assessment is not enough
- The ultimate goal of risk assessment is *prevention & risk management*
- Need for specific dynamic risk management strategies that stem from risk assessment procedures and case analysis to determine *when* the probationer is at risk

Dynamic Risk Assessment

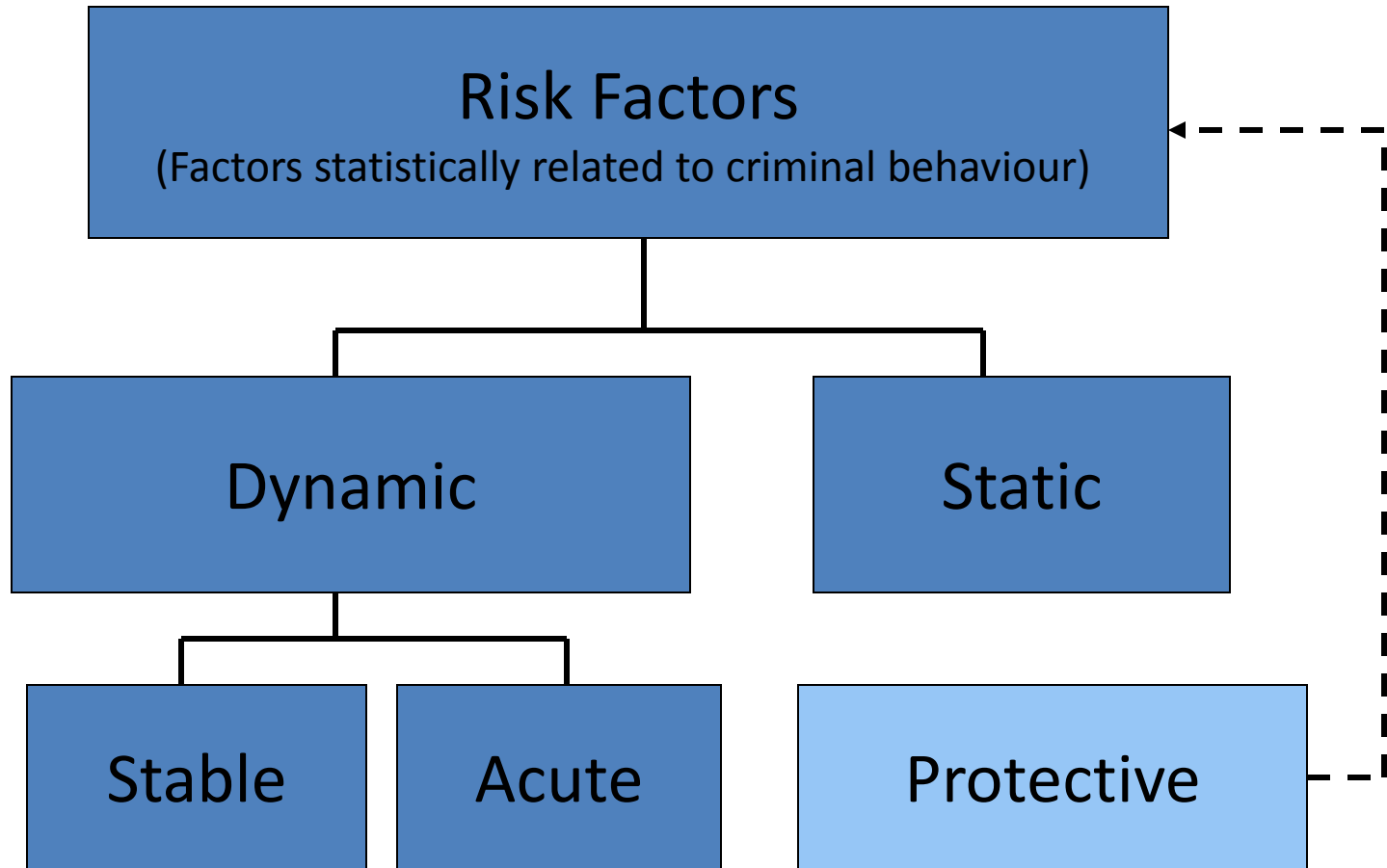
- Review dynamic factors (Acute 2007, Stable 2007)
- LSI-R
- Dynamic risk incrementally predicts recidivism (just barely)

Dynamic Risk Assessment

- Need for standardized measure that considers risk state
- Critical for effective community supervision
- Guides parole/probation interviews
- Informs conditions & decisions
- Should include risk and protective factors

Distinguishing between risk status and risk state

**How to use dynamic risk assessment
in community supervision**



Protective Factors

- Those characteristics or assets of an individual that buffer risk.
- Literature abundant in youth mental health.
- Very few efforts have been made to extend that literature into understanding adult criminal behavior.
- Structured activities and strong family relations potentially important factors in understanding protection from criminal behavior (DeMatteo et al., 2005).

Dynamic Risk Assessment for Offender Reentry

STABLE	ACUTE	PROTECTIVE
Peer associations	Substance abuse	Responsive to advice
Attitudes towards authority	Anger/Hostility	Prosocial identity
Self-regulation	Opportunity/Access to victims	High expectations
Problem solving	Negative Mood	Costs/Benefits
Sense of entitlement	Employment	Social support
Attachment with others	Interpersonal Relationships	Social control
	Living situation	

Overview of DRAOR

- In essence, the stable factors address criminal orientation and impulsivity concerns; the acute factors address disinhibitors and lifestyle stressors; and, the protective factors address social support and prosocial identity changes.

New Zealand Pilot (N=239)

Initial Findings

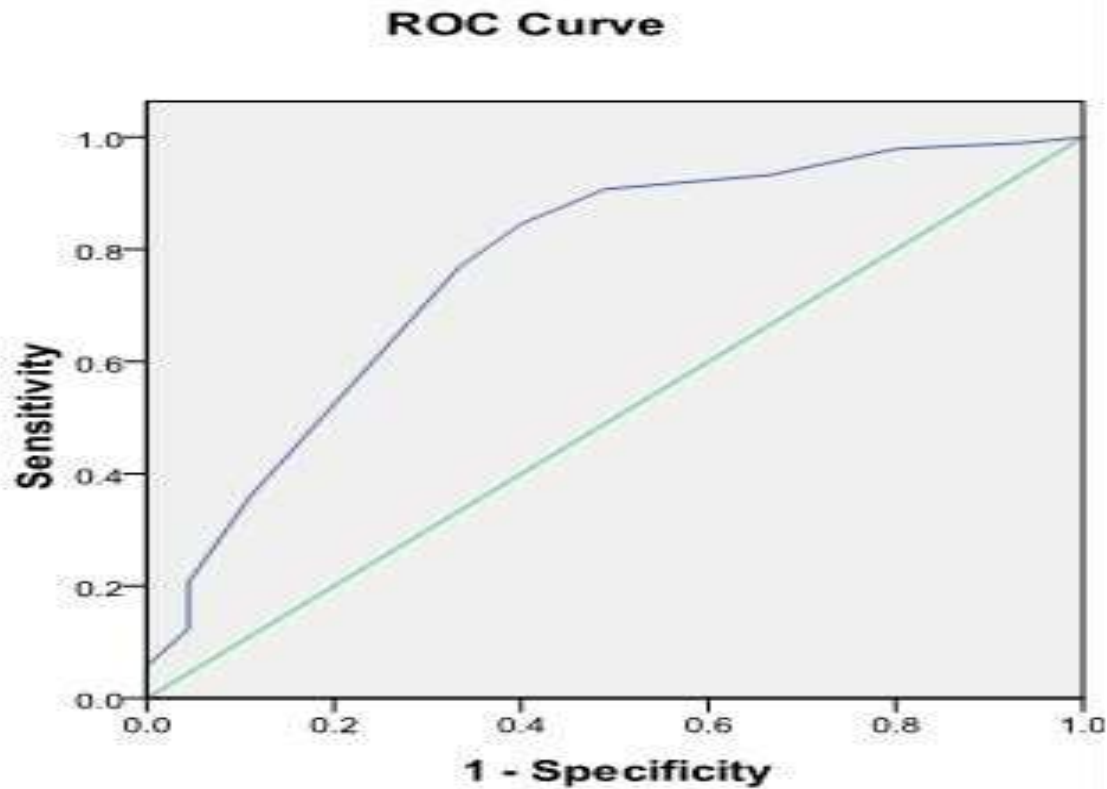
- Comparison of those recalled or reconvicted (reoffending) and crime desistance groups (non-recidivist) revealed these significant predictors of parole success:
 - older offender age
 - lower Acute risk on the DRAOR
 - higher Protective scores on the DRAOR

Summary of NZ Pilot

- The scores from the DRAOR were found to have a significant relationship with a validated static risk measure, RoC*RoI.
- The DRAOR dynamic risk variables, in particular, the Protective variable subscale demonstrated predictive validity with regard to post-release recidivism and desistance from crime.

Any Re-offending (n=239 men & women; 6 month follow-up; any reconviction)

AUC = .77



Diagonal segments are produced by ties.

Iowa Department of Corrections Pilot (N=563)

Iowa Pilot: DRAOR Scores at T1 & T2

(N = 563)

- **Days between Time 1 and Time 2 DRAOR Assessments**

M = 65.6, SD = 28.5 (Range 6 – 128)

- **DRAOR Total Score Change**

M = .29, SD = 4.66 (Range -16 – 17)

- **Direction of Change**

42.7% Up, 42.7% Down, 14.6% Same

Recidivism

Any violation/revocation N = 163 (28.9%)

Any serious violations N = 122 (21.7%)

Any new crime N = 71 (12.6%)

DRAOR (T1) Item Correlations & Outcome

Any violations

- Protective $-.18$ to $-.27$ $(-.28$ overall)
- Acute $.06$ to $.19$ $(.25$ overall)
- Stable $.08$ to $.24$ $(.23$ overall)

Predictive Validity (Any violations)

<u>Measure</u>	<u>AUC</u>
LSI-R total score*	.56
DRAOR total score	.66
Stable total score	.60
Acute total score	.65
Protective total score	.67

* small N

Summary

- **Order of predictive accuracy**
 - Stable < Acute < Protective
 - Overall score (Protective – (Stable + Acute) predictive
- **High scores vs. low scores**
 - Overall Base rate = 16% (Revocations, 3 months)
 - Low scores = 8 %
 - Moderate = 16%
 - Moderate – High = 28%
 - High Scores = 36%

Iowa Sex Offender Study (n=203)

- Maximum follow-up period was 105 months ($M = 21.61$, $SD = 13.80$).
- Average time to first technical violation was 17 months ($SD = 14.23$).
- Average time to first sexual re-offense was 21 months ($SD = 13.73$).

Recidivism Rates

Recidivism Type	Whole Sample	Rapists	Child Molesters
Parole Violations	36.3 %	14.3%	16.7 %
Sexual Recidivism	4.4 %	2.5%	1.0%

Predictive Accuracy

					Asymptotic 95% CI	
Variable	r	d	AUC	SE	Lower	Upper
			Parole Violations			
Static-99R	.24**	.51	.64***	.04	.56	.72
DRAOR						
Stable Total	.33**	.70	.69***	.04	.62	.78
Acute Total	.27**	.54	.65***	.04	.57	.74
Protective Total	-.18*	.40	.61***	.04	.52	.69
Total	.31**	.66	.68***	.04	.60	.76

* $p < .05$. ** $p < .01$. *** $p < .001$

NZ Implementation

National implementation; 2 year
follow-up; n=3498

Predictive Accuracy of the DRAOR (N = 3498)

Type of Failure DRAOR Measure	AUC
Any Parole Failure (n = 1478)	
RoC*RoI	.75
DRAOR Total	.75
Stable	.72
Acute	.72
Protective	.72
Revised Total	.75
Stable/Acute	.73
Criminal Parole Failure (n = 994)	
RoC*RoI	.74
DRAOR Total	.70
Stable	.68
Acute	.70
Protective	.67
Revised Total	.70
Stable/Acute	.69

Conclusion

DRAOR provides structure for constantly revising assessment of risk and for management of risk and complements static risk instruments

DRAOR & Case Planning

- Use high Stable and Acute scores for case planning
- Prioritize case needs by offense chain or functional analysis

Decision Rules

- Use DRAOR scores to refine supervision level
 - Increase in acute score increases FOC
 - Increase in protective factors decreases FOC

7. What's Next?

Final Thoughts

Linking CCP and Desistance

- NIC initiative for DFE
- Bridging RNR & desistance
- Increasing focus on protective factors to enhance client success
- Recognition that community corrections staff are vital agents of change

Thank You!

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