

# Evaluating the Impact of Solitary Confinement on Offenders with Mental Illness

Paula Smith, Ph.D.

*Associate Professor, University of Cincinnati*

Ryan Labrecque, Ph.D.

*Assistant Professor, Portland State University*

Paul Gendreau, O.C., Ph.D.

*Professor Emeritus, University of New Brunswick*

Presented at the XXXIVth International Congress of Law and Mental Health  
on July 2015 in Vienna, Austria



# Solitary Confinement Debate: Psychological Theories of Imprisonment

- **General and Specific Deterrence**
  - SC suppresses antisocial behavior and is an important tool for the management of safe prisons.
- **Schools of Crime/Cruel and Unusual Punishment**
  - The experience of SC causes undue psychological distress and increases criminal behavior.
- **Importation/Psychological Deep Freeze**
  - SC has little impact (depending on conditions of confinement and other moderators).
  - Prison crowding and institutional climate are relevant.

# Solitary Confinement Debate: Sensory Deprivation Literature

- **Original studies conducted between 1950 and 1975**
  - Cameron/Hebb & McGill
  - Zubek & Suedfeld
  
- **Failure to replicate early research findings**
  - Response bias and theoretical considerations
  - Orne & Scheibe
  
- **Applications within correctional settings**
  - Kingston and Millbrook studies

# Solitary Confinement Debate: Summary of Empirical Findings

- With few exceptions, previous research on SC has involved qualitative data and weaker methodological designs (see Gendreau & Labrecque, in press).
- The vast majority of studies have focused on psychological (rather than behavioral) outcomes.
- Most narrative reviews have concluded that SC is detrimental to the well-being of inmates (see Scharff-Smith, 2006).
- No deleterious effects associated with brief periods of SC (Gendreau et al., 1972; Walters et al., 1963).

# Solitary Confinement Debate: Summary of Empirical Findings

- Two recent meta-analyses summarized the empirical research on SC (see Morgan et al., forthcoming).
  - ES estimates were modest and imprecise.
  - Little information was available on moderators (e.g., gender, mental illness, risk).
  - Data on important situational variables was largely missing.
  - Weaker methodological designs produced larger ES estimates.

# Solitary Confinement Debate: Inmates with Mental Illness

- Alleged to cause psychological distress
  - Appetite and sleep disturbance
  - Anxiety and panic
  - Depression and hopelessness
  - Irritability
  - Anger and rage
  - Lethargy
  - Psychosis and cognitive rumination
  - Social withdrawal
  - Cognitive impairment
  - Suicidal ideation and self-injurious behaviors
- Constellation of symptoms has been previously referred to as *SHU Syndrome* (Grassian, 1983).

# Solitary Confinement Debate: Inmates with Mental Illness

- Use of SC has been controversial and litigious:
  - *Madrid v. Gomez*
  - *Desmarias v. Correctional Service of Canada*
- Minimal mental health deterioration reported for up to 60 days of SC (Zinger et al., 2001).
- General absence of negative effects reported in recent one-year longitudinal study (O'Keefe et al., 2010).

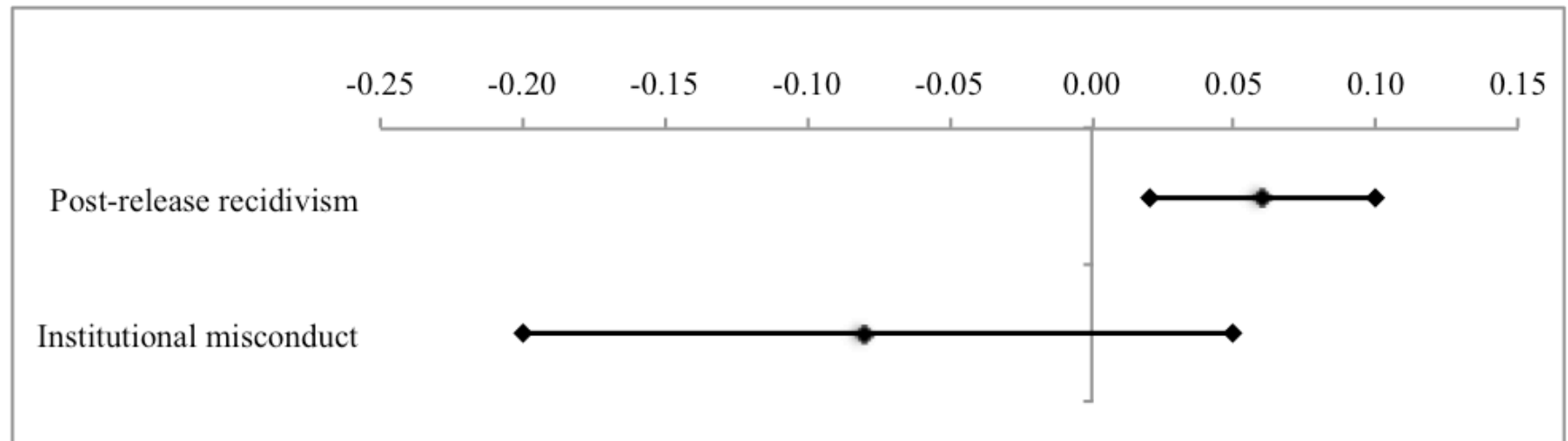


# Behavioral Outcome Measures

- In comparison with psychological outcomes, few studies have examined the impact on SC on institutional behavior and post-release recidivism.
- In a recent national survey (see Mears & Castro, 2006):
  - 97% of prison wardens identified safety, order and control as the main goal of SC.
  - Approximately 50% of prison wardens endorsed the notion that the role of SC was to rehabilitate or reduce recidivism.

# Behavioral Outcome Measures

	<b>r</b>	<b>95% CI</b>	<b>I<sup>2</sup></b>	<b>n</b>	<b>k</b>
Post-release recidivism	.06	.02 to .10	25%	4,636	7
Institutional misconduct	-.08	-.20 to .05	87%	1,904	2



# Behavioral Outcome Measures

- The limited empirical evidence suggests:
  - SC produces little or no impact on institutional misconducts.
  - SC is associated with a slight increase in recidivism.

# Current Research

- The primary goal of the current study is to examine the impact of SC on institutional misconducts in offenders with mental illness.
- It is expected that this research agenda will both inform policy decisions and have practical implications for the management of correctional institutions.

# Research Questions

1. Does the experience of SC reduce institutional misconducts in offenders with mental illness?
2. Does the length of time spent in SC influence subsequent institutional misconducts in offenders with mental illness?

# Data

- Data was obtained from the Ohio Department of Rehabilitation and Correction (ODRC).
- The sample included information on 108,549 inmates admitted into custody between 7/1/07 and 6/30/12.
- Demographic data and mental health diagnoses (de-identified) were also available.

# Method

- ODRC categorizes segregation into the following types:
  - Administrative Control
  - Local Control
  - Protective Custody
  - Security Control
  - **Disciplinary Control**

# Dependent Variable

- Institutional misconduct is defined as a finding of guilt for any violation of an ODRC rule of conduct.
- Consistent with previous research by Steiner and Wooldredge (2013), misconducts were further subdivided into three categories:
  - Violent/serious offenses (e.g., assault)
  - Non-violent/less serious offenses (e.g., damage to property, theft)
  - Drug/alcohol offenses



# Dependent Variable

- Inmate found guilty of a rule violation can be placed in disciplinary control.
- A single violation/event can result in up to 15 days.
- Two or more unrelated violations can be imposed consecutively.
- Rule violations while in disciplinary control can result in an additional 15 days.

# Dependent Variable

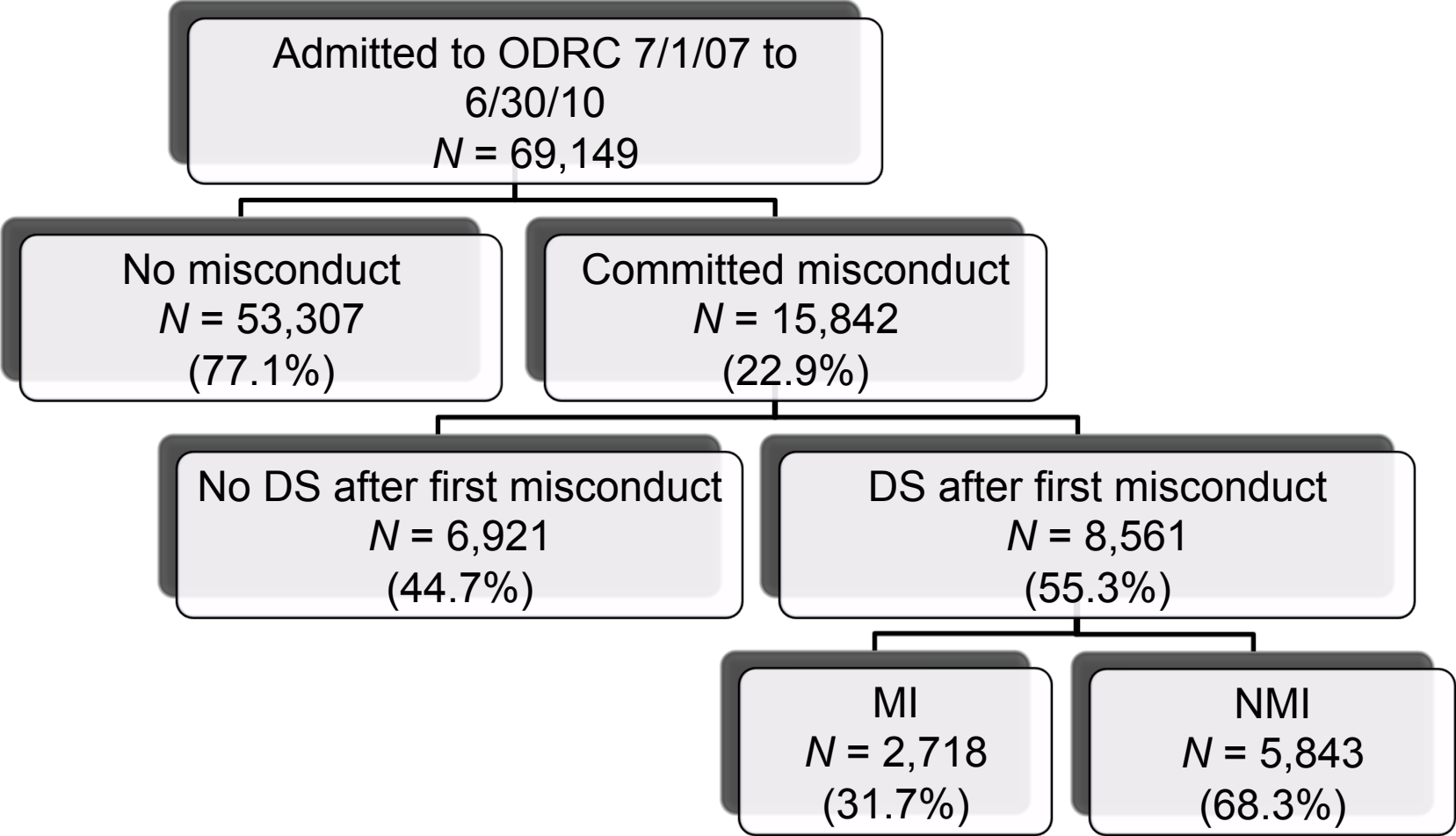
- According to ODRC policy, no combination shall require an inmate to serve more than 30 days continuously in disciplinary control.

# Dependent Variable

- Both the prevalence and incidence of institutional misconducts were examined.

# Method

- Propensity score matching (PSM) was used to match MI and NMI inmates who experienced DS within 30 days of being found guilty of an initial misconduct
- One-to-one nearest neighbor matching with a .01 tolerance level.
- PSM is useful because it reduces potential biases due to confounding variables (Rosenbaum & Rubin, 1983).



# Comparison of Characteristics (Full Sample)

	MI (N = 2,718)		NMI (N = 5,843)		<i>t</i>
	Mean	(SD)	Mean	(SD)	
Age at intake (in years)	31.95	(9.95)	28.95	(9.50)	13.16**
Black	.33	(.47)	.59	(.49)	-23.84**
Female	.13	(.33)	.03	(.17)	14.36**
Prior commitments	1.31	(1.77)	1.14	(1.61)	4.13**
Felony level (1–5)	2.57	(1.19)	2.52	(1.19)	2.05*
Risk score (-1–8)	2.38	(2.25)	2.15	(2.15)	4.47**
Natural log of time served (in months)	3.80	(.85)	3.70	(.83)	5.28**
Any initial violent misconduct	.34	(.47)	.34	(.47)	-0.05
Any initial nonviolent misconduct	.64	(.48)	.61	(.49)	2.64**
Any initial drug misconduct	.13	(.33)	.14	(.35)	-2.14*

Note. \*  $p \leq .05$ . \*\*  $p \leq .01$ .

# Comparison of Characteristics (Matched Sample)

	MI (N = 2,481)		NMI (N = 2,481)		<i>t</i>
	Mean	(SD)	Mean	(SD)	
Age at intake (in years)	31.55	(9.73)	30.50	(10.31)	-3.68*
Black	.34	(.48)	.33	(.47)	-1.11
Female	.08	(.27)	.06	(.24)	-1.72
Prior commitments	1.31	(1.76)	1.29	(1.76)	-0.45
Felony level (1–5)	2.56	(1.19)	2.52	(1.22)	-1.30
Risk score (-1–8)	2.33	(2.24)	2.35	(2.26)	0.31
Natural log of time served (in months)	3.80	(.85)	3.81	(.87)	0.46
Any initial violent misconduct	.34	(.47)	.33	(.47)	-.078
Any initial nonviolent misconduct	.63	(.48)	.64	(.48)	0.21
Any initial drug misconduct	.13	(.34)	.15	(.35)	1.51

Note. \*  $p \leq .01$ .

# Impact of DC on Institutional Misconducts by Mental Health Status

Misconduct	MI	NMI	Difference	Standard Error	<i>t</i>
<b>Violent</b>					
Prevalence	.41	.41	.00	.01	-0.03
Incidence	.97	.79	-.18	.04	-4.11*
<b>Nonviolent</b>					
Prevalence	.67	.71	.04	.01	3.35*
Incidence	4.24	3.53	-.71	.18	-4.06*
<b>Drug</b>					
Prevalence	.27	.30	.04	.01	2.89*
Incidence	.46	.49	.03	.03	0.93

Note. \*  $p \leq .01$ .



# Impact of DC on Incidence of Violent Misconducts by MI Diagnosis

MI Type	N	MI	NMI	Difference	t
Anxiety	274	.74	.97	.23	1.26
Childhood	62	1.39	1.13	-.26	-0.48
Mood	1,244	.83	.90	.07	0.79
Schizophrenia	262	1.15	.98	-.16	-0.74
Substance-related	200	.89	1.01	.12	0.51
Dual diagnosis	1,188	.74	.90	.15	1.85
Personality	78	1.67	1.21	-.46	-.076
Comorbid Axis 1	548	.99	.99	.00	0.00
Comorbid Axis 1 and 2	1,052	1.34	.92	-.43	-3.74*

Note. \*  $p \leq .01$ .

# Impact of DC on Incidence of Nonviolent Misconducts by MI Diagnosis

MI Type	N	MI	NMI	Difference	t
Anxiety	274	3.37	3.09	-.27	-0.45
Childhood	62	4.87	3.71	-1.16	-0.69
Mood	1,244	3.69	3.85	.16	0.48
Schizophrenia	262	4.18	3.06	-1.11	-1.62
Substance-related	200	3.45	3.12	-.33	-0.50
Dual diagnosis	1,188	3.77	3.86	.09	0.25
Personality	78	7.28	4.23	-3.05	-1.49
Comorbid Axis 1	548	3.64	3.78	.15	0.28
Comorbid Axis 1 and 2	1,052	5.82	3.75	-2.07	-4.77*

Note. \*  $p \leq .01$ .

# Summary of Results

- MI inmates in SC had a significantly lower prevalence of both nonviolent and drug misconducts compared to NMI inmates.
- MI inmates had a higher incidence of violent and nonviolent misconduct compared to NMI inmates.
- Taken together, these findings suggest that there might not be a larger proportion of MI inmates engaging in misconduct after DS.
- However, MI inmates who do engage in subsequent misconducts appear to do so at a much higher rate in comparison with NMI inmates.

# Limitations

- Findings may not be applicable to all SC settings and inmates.
- The current study is limited to adult inmates from Ohio who served one year or more in prison.
- Results were also limited to inmates who were placed in SC for disciplinary control.

# Implications for Research

- Similarities and differences between SC and SD settings
- Individual and situational factors
- Institutional climate
- SC as a punisher

# Implications for Clinical Practice

- Integration of “what works” literature into SC settings
- Assessment and classification tools
- Treatment interventions
- Inmate and staff monitoring

# Implications for Prison Management

- Prevention of Institutional Misconducts
  - Treatments (see French & Gendreau, 2006)
  - Contingency management and ABA
  - Prison design
  - Policies and procedures for the use of SC
  - Incentives to leave SC (see Gendreau et al., 2014)

# Contact Information

Paula Smith, Ph.D.  
Associate Professor  
School of Criminal Justice  
University of Cincinnati

Telephone: +001 513 652 4419

Email: [paula.smith@uc.edu](mailto:paula.smith@uc.edu)