




**Tailoring Gambling Treatment using
the Pathways Model**




David M. Ledgerwood, Ph.D.
Department of Psychiatry & Behavioral Neurosciences
Wayne State School of Medicine
dledgerw@med.wayne.edu

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Dept. Psychiatry and Behavioral
Neurosciences
Wayne State School of Medicine
Detroit, MI

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Objectives

-  Learners will understand the pathways of developing gambling disorders according to the Pathways Model
-  Learners will become aware of recent research on the Pathways Model
-  Learners will know how to apply the Pathways Model in the context of gambling treatment

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WAYNE STATE The Pathways Model

What is IT?

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WAYNE STATE How do people develop a gambling disorder?

- How do we make sense of the various problems gamblers present with?

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REVIEW

A pathways model of problem and pathological gambling

Alex Blaszczynski¹ & Lisa Newer²

Department of Psychology, University of Saskatchewan, Saskatoon, Saskatchewan, Canada and Department of Social Work, University of Missouri-Columbia, Columbia, Missouri, USA

ADDICTION

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ABSTRACT

At the moment, there is no single conceptual theoretical model of gambling that adequately accounts for the multiple biological, psychological and sociological variables contributing to the development of pathological gambling. Advances in this area are hampered by improper definitions of pathological gambling, failure to distinguish between gambling problems and problem gambling and a tendency to assume that pathological gamblers form one, homogeneous population with similar psychological principles applying equally to all members of the class. The purpose of this paper is to advance a pathway model that integrates the complex array of biological, personality, developmental, cognitive, learning theory and ecological determinants of problem and pathological gambling. It is proposed that three distinct subgroups of gamblers manifested historical control over their behaviour over the identified "three

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Wayne State Pathway Model

- Three types of gamblers – Blaszczynski’s model
 - Behaviourally conditioned gamblers
 - Absence of premorbid psychopathology.
 - Gambling problems maintained by environmental contingencies.
 - Emotionally vulnerable or Escape oriented gamblers
 - Characterized by anxiety and depression, poor coping and negative early family experiences.
 - Antisocial-Impulsive gamblers
 - Characterized by high impulsivity and ASP.
 - Higher levels of general psychopathology.

Blaszczynski & Nower (2002) Addiction, 97, 487-499.

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Wayne State Behaviourally Conditioned

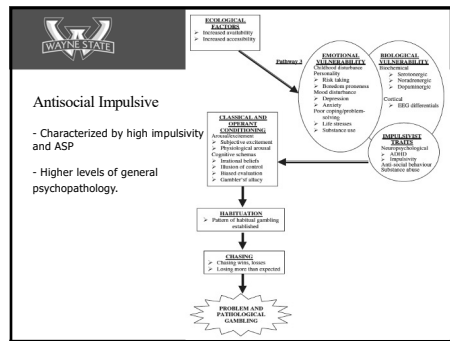
- Absence of premorbid psychopathology
- Gambling problems maintained by environmental contingencies.

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Wayne State Emotionally Vulnerable

- Characterized by anxiety and depression, poor coping and negative early family experiences


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Research Addressing Co-occurring Pathology and GD Using the Pathways Model

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The subtyping of pathological gambling: A comprehensive review
 Aleks Milesevic ^{a,*}, David M. Ledgerwood ^b

^a University of Windsor, Department of Psychology, 173 Chrysler Hall South, 401 Sunset Ave., Windsor, ON, Canada N9B 3P4
^b Wayne State University School of Medicine, Department of Psychiatry and Behavioral Neuroscience, 4202 E. John R. Ave., Detroit, MI 48207, USA



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Milosevic & Ledgerwood

- Several ways of subtyping individuals with GD
 - Moran (1970) – Subcultural, Neurotic, Impulsive, Psychopathic, Symptomatic
 - Graham & Lowenfeld (1986) – Personality disordered, Paranoid, Depressive/Anxious, Passive aggressive/unstable
 - Steel & Blaszczynski (1986) – Psych. Distress, Sensation seeking, Crime and liveliness, Impulsive antisocial

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Gambling disorder subtypes: an updated systematic review
ShayLin Excell, Clara N. Cannoy, Danishi K. Bedi, Mannat K. Bedi, Yasir Mehmood, Leslie H. Lundahl and David M. Ledgerwood

Department of Psychiatry and Behavioral Neurosciences, Wayne State University, Detroit, Michigan

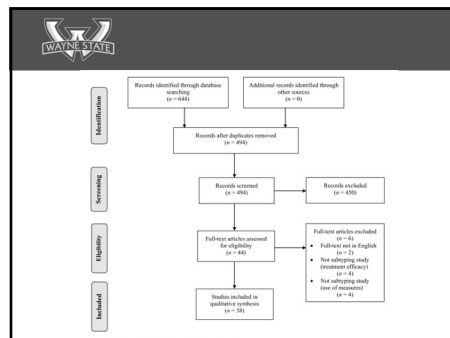
ABSTRACT
Blaszczynski and Nowak established the Pathways model as an integrative theoretical framework for subtyping GD. Within this framework, they propose three etiological subtypes of problem gamblers: (a) behaviorally conditioned, (b) emotionally vulnerable, and (c) antisocial/impulsivist gamblers. The current systematic review was conducted to evaluate the validity and clinical utility of the Pathways model and other subtyping models, providing an update to a previous systematic review. A literature search was conducted using the R-AMM, PsycINFO, and Web of Science databases.

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KEYWORDS
gambling disorder; pathways model; gam subtypes; pathological gambling; literature review



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ORIGINAL PAPER

Subtyping Non-treatment-seeking Problem Gamblers Using the Pathways Model

Miea Moon^{1,2} · Jamey J. Lister^{1,3} · Aleks Milosevic^{2,4} · David M. Ledgerwood^{1,2}




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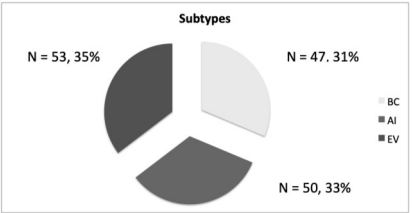
 **Community Gamblers**

- N = 150 individuals with GD (50% women, 39% college students)
- Categorized into subtypes based on Impulsivity, Boredom Proneness, Coping Motives, ADHD Symptoms, Childhood Trauma, Risk-taking, ASPD Symptoms
- Cluster analysis to assign participants to specific subtypes

Moon, Lister, Milosevic & Ledgerwood, 2017

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 **Proportion per subtype**



Subtype	N	Percentage
BC	53	35%
AI	47	31%
EV	50	33%

Moon, Lister, Milosevic & Ledgerwood, 2017

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WV STATE Breakdown by Cluster Variables

Cluster Variable	BC (n = 47)	AI (n = 50)	EV (n = 53)
Impulsivity	0.24(0.24)	<u>0.15(0.18)</u>	0.38(0.30)
Boredom Proneness	0.70(0.66)	2.01(0.81)	1.95(0.62)
Gambling to Cope	7.87(2.41)	11.9(4.37)	<u>14.0(3.52)</u>
ADHD Symptoms	14.9(0.68)	<u>27.6(1.19)</u>	18.2(1.20)
Child Trauma	38.7(13.0)	<u>55.6(21.5)</u>	<u>51.2(19.3)</u>
Harm Avoidance (vs. Risk-Taking)	15.7(5.86)	13.6(4.17)	<u>20.1(3.84)</u>
ASPD	0.51(0.93)	<u>2.12(2.02)</u>	0.96(1.31)

Moon, Lister, Milosevic & Ledgerwood, 2017

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WV STATE Validity Analyses - Demographics

Cluster Variable	BC (n = 47)	AI (n = 50)	EV (n = 53)
Age, M(SD)	<u>32.0(15.4)</u>	<u>33.3(14.9)</u>	42.0(14.0)
Sex, n(%) female	<u>17(36.2)</u>	25(50.0)	<u>33(62.3)</u>
Married, n(%)	14(29.8)	14(28.0)	14.(26.4)
Employed, n(%)	35(74.5)	33(66.0)	<u>27(50.9)</u>
Income, median	\$40,000	<u>\$21,500</u>	\$35,000
University Recruited	<u>27(57.4)</u>	22(44.0)	<u>10(18.9)</u>

EV significantly older than BC and AI
 More EV gamblers were women; More BC gamblers were men
 EV gamblers were less likely to be employed than BC; AI lower income than EV, BC
 BC were most likely, and EV least likely to be university students

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WV STATE Validity Analyses - Gambling

Cluster Variable	BC (n = 47)	AI (n = 50)	EV (n = 53)
Past Year NODS	<u>4.9(2.5)</u>	6.1(2.5)	7.0(2.5)
Age First Gambling	22.1(9.6)	21.9(10.8)	<u>29.8(14.6)</u>
Interest in Treatment	4(8.5)	<u>16(32.0)</u>	<u>16(30.2)</u>
Family Hx Gambling	13(27.7)	<u>25(50.0)</u>	<u>31(58.5)</u>
Family Hx Subst.	26(55.3)	32(64.0)	39(73.6)
Gambling-Rel Suic.	1(2.1)	5(10.0)	<u>15(28.0)</u>

BC lower past year NODS than AI, EV; EV started gambling a later age than BC, AI
 More AI, EV interested in treatment than BC
 AI, EV gamblers more likely to have family history of gambling
 EV most likely to have history of gambling-related suicidal ideation/attempt

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Validity Analyses - Psychiatric

Cluster Variable	BC (n = 47)	AI (n = 50)	EV (n = 53)
LT Mood Disorder	16(34.0)	<u>28(56.0)</u>	<u>33(62.0)</u>
LT Anxiety Disorder	4(8.5)	<u>14(28.0)</u>	<u>15(28.3)</u>
LT Subst. Dep.	11(23.4)	<u>24(48.0)</u>	<u>22(41.5)</u>
LT Alc. Dep.	<u>30(63.8)</u>	<u>35(70.0)</u>	25(47.2)

AI and EV gamblers were more likely to have histories of mood, anxiety, and substance use disorders
 BC and AI gamblers were more likely to have history of alcohol dependence

Moon, Lister, Milosevic & Ledgerwood, 2017

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- Conclusions**
- Individuals with GD can be sub-grouped based on the Pathways Model
 - These subgroups make sense in terms of other demographic, gambling-related and psychiatric factors
 - Individuals with GD in different subtypes have different treatment needs

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EDITORIAL

Introduction to the Special Issue "20 years of the Pathways Model: understanding disordered gambling and other behavioural addictions"

Luke Clark^{a,b}, Joel Billieux^{c,d} and David M. Ledgerwood^e

^aCentre for Gambling Research at UBC, Department of Psychology, University of British Columbia, Vancouver, British Columbia, Canada; ^bDavid Mondragón Centre for Brain Health, University of British Columbia, Vancouver, British Columbia, Canada; ^cInstitute of Psychology, University of Lausanne, Lausanne, Switzerland; ^dCentre for Executive Gambling, Addiction Medicine, Lausanne University Hospital (CHUV), Lausanne, Switzerland; ^eDepartment of Psychiatry and Behavioral Neurosciences, Wayne State University, Detroit, Michigan, USA

ABSTRACT
 The Pathways Model of problem gambling has become a highly influential framework in the field of gambling studies. This special issue commemorates 20 years since the publication of the original paper, highlighting the sustained impact of the Pathways Model across the broader and emergent field of behavioral addictions. As a framework, the Pathways Model set out two distinct objectives: first, to synthesize an array of risk factors and psychological processes that have been implicated in the etiology of gambling

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KEYWORDS
 Problem gambling;
 Behavioral addictions;
 Heterogeneity; Cognitive processes

Introduction to Gambling Studies

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W **WAYNE STATE** Highlights from the Special Issue

- Pathways in a clinical population (Mestre-Bach et al.)
- Opioid use disorder (Lister et al.)
- Conceptual and methodological issues (Delfabbro & King)
- Process analysis through case formulations (Bonnaire & Billieux)
- Italian version of the GPQ (Primi et al.)
- Problem video gaming in teens (Marchica et al.)
- Focus on slot machine gambling (Ferrari et al.)






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Check for updates

Exploring the pathways model in a sample of patients with gambling disorder

Gemma Mestre-Bach , Roser Granero , Fernando Fernández-Aranda , Marc N. Potenza  and Susana Jiménez-Murcia 

^aFacultat de ciències de la salut, Universidad Internacional de La Rioja, La Rioja, Spain; ^bDepartment of Psychobiology and Methodology, Autonomous University of Barcelona, and CIBERSaB, Barcelona, Spain; ^cDepartment of Psychiatry, University Hospital of Bellvitge-IDIBELL and CIBERSaB; ^dDepartment of Clinical Sciences, School of Medicine and Health Sciences, University of Barcelona, Spain; ^eDepartment of psychiatry, Yale School of Medicine, Connecticut Mental Health Center and Connecticut Council on Problem Gambling

N=241 in treatment for GD in Spain
Explored primarily EV and AI pathways

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W **WAYNE STATE** Mestre-Bach et al. 2022

Figure 2. Pathway 2 standardized coefficients. Note. Continuous line: significant coefficient; Dash line: non-significant coefficient.

Figure 3. Pathway 3 standardized coefficients. Note. Continuous line: significant coefficient; Dash line: non-significant coefficient.

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[Check for updates](#)

Conceptual and methodological issues in pathways model research
Paul Delfabbro^a and Daniel King^b

^aSchool of Psychology, University of Adelaide, Adelaide, Australia; ^bCollege of Education, Psychological and Social Work, Flinders University, Adelaide, Australia


- Dispositional vs. exposure characteristics
- PG severity and co-morbid severity
- Use of sub-clinical or non-problem gamblers
- Cause and Effect/Chicken and Egg problem
- Long-term stability of subtypes

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Implications for Assessment and Treatment

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0893-3200/22/\$12.00 https://doi.org/10.1037/abn0000523

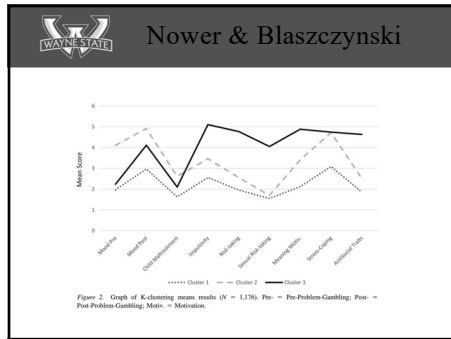
Development and Validation of the Gambling Pathways Questionnaire (GPQ)

Lia Nowor
Rutgers University

Alex Blaszczynski
University of Sydney

- N = 1,176 individuals in treatment for GD (from Canada, US and Australia)
- Final measure was 48 items on 9 domains
- Domains: Mood-pre; mood-post; child abuse, neglect and trauma; stress-coping motivation; impulsivity; meaning motivation; risk taking; sexual risk taking; antisocial traits/behaviors

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Subtyping and Assessment


- Individuals with GD will come to treatment with a variety of co-occurring problems
- Co-occurring disorders is the rule rather than the exception

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Issues to Assess


- Problems to assess:
 - Depression and Anxiety
 - Suicide Risk
 - Substance Abuse and Alcoholism
 - Impulsivity (e.g., Barratt Impulsiveness Scale)
 - ASPD
 - ADHD
 - PTSD/Trauma

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 **Issues to Assess**


- It may be useful to assess how gambling problems began
 - Gambling at an early age vs. later in life
 - Parental gambling, substance abuse and/or mental health
 - Related to life events, stressors or trauma (e.g., bereavement)
 - Related to gambling, itself (e.g., big win)

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 **Subtyping and Treatment**

- BC gamblers may have less severe gambling and co-occurring problems, and this might lead them to take their recovery less seriously, and be less motivated for change
- Unfortunately, there are very few studies exploring the utility of the Pathways Model for tailoring treatment

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 **Subtyping Pathological Gamblers Based on Impulsivity, Depression, and Anxiety**


David M. Ledgerwood
Wayne State School of Medicine

Nancy M. Petry
University of Connecticut Health Center

This study examined positive subtypes of pathological gamblers (PGs) based on the Pathways model, and it also evaluated whether the subtypes would benefit differentially from treatment. Treatment-seeking PGs (N = 220) were categorized into Pathways subtypes based on scores from questionnaires assessing anxiety, depression, and impulsivity. The Addiction Severity Index—rating assessed severity of gambling problems at baseline, posttreatment, and 12-month follow-up. Compared with behaviorally conditioned (BC) gamblers, emotionally vulnerable (EV) gamblers had higher psychiatric and gambling severity, and were more likely to have a parent with a psychiatric history. Antisocial Impulsive (AI) gamblers also had elevated gambling and psychiatric severity relative to BC gamblers. They were more likely to have antisocial personality disorder and had the highest legal and financial severity scores. They were also more likely to have a history of substance abuse treatment, history of repeated psychiatric treatment, and a parent with a substance use or gambling problem. AI and EV gamblers experienced greater gambling severity throughout treatment than BC gamblers, but all three subtypes demonstrated similar patterns of treatment response. Thus, the three Pathways subtypes differ on some baseline characteristics, but subtyping did not predict treatment outcomes beyond a simple association with problem gambling severity.


Keywords: pathological gambling, Pathways model, depression, impulsivity, gambling subtype

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 Analysis of the Pathway Model


- From Petry et al. 2005.
- 229 participants; completed baseline, 1-month, 2-month and 6-month assessments.
- Questionnaires included the SOGS, BSI, ASI, Eysenck Impulsiveness Scale, SCID-ASPD measure.

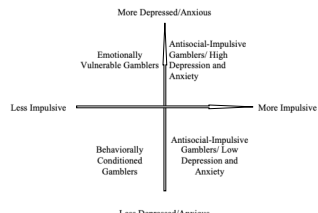
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 Analysis of the Pathway Model

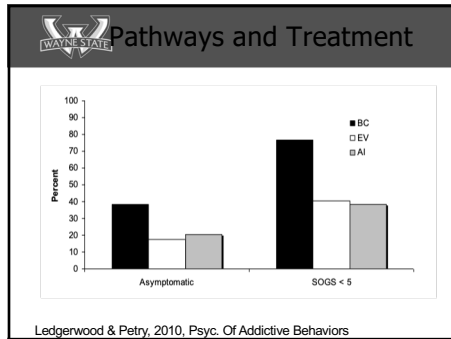
- Based on BSI and Eysenck scale scores, participants were divided into one of four groups:
Behaviourally Conditioned: Low impulsivity and low depression/anxiety.
Emotionally Vulnerable: Low impulsivity and high depression or anxiety.
Antisocial-Impulsive: High impulsivity and high depression or anxiety.

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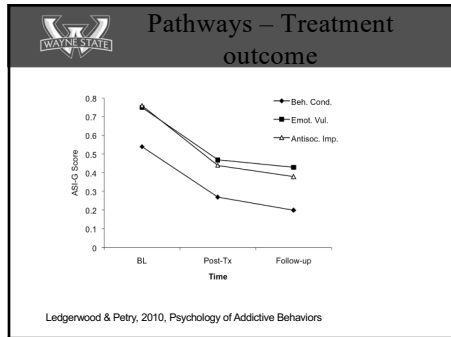
 Pathways Groups



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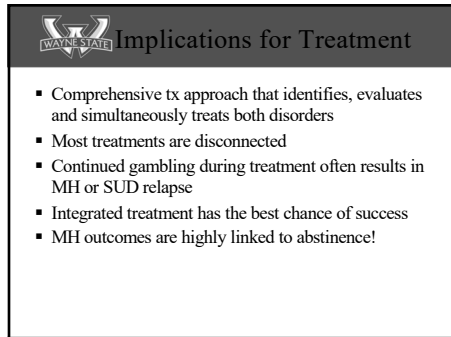
Implications

- Extent of impulse control and co-occurring psychiatric problems vary across individuals with GD
- All individuals with GD can respond to treatment
- Some individuals with GD may need more treatment or more intensive treatment than others
- Co-occurring disorders need not mean that an individual with GD cannot be successful in treatment

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