RUTGERS Center for Gambling Studies
Treating Sub-Groups of Problem Gamblers with a Pathways Framework
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Section 1977

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Introduction

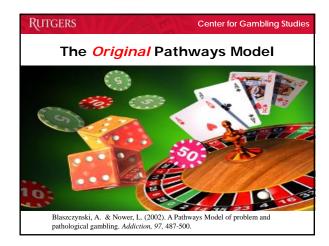
- The Pathways Model is a popular model of the etiology of problem and disordered gambling
- The model proposes there are three (or more) pathways to problem gambling.
- Each pathway entails different risk & protective factors.
- The Gambling Pathways Questionnaire (GPQ) is a comprehensive instrument that sorts problem gamblers into subtypes based on risk factors.
- This should help to inform targeted screening, intervention and prevention efforts and assist counselors in individualizing treatment.

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Learning Objectives of this Presentation

- To understand the Pathways Model and recent revisions
- To utilize the Gambling Pathways Questionnaire (GPQ: Nower & Blaszczynski, 2017) to assign clients to subgroups with implications for treatment
- To use information from the GPQ to develop targeted treatment strategies for individual gamblers



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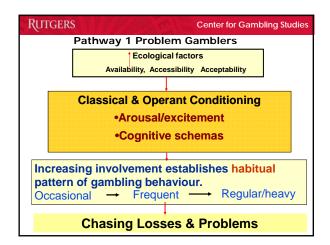
Pathways Model proposes that...

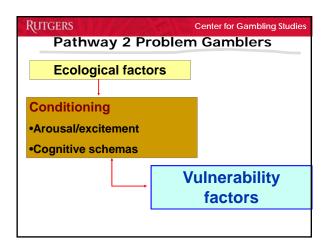
All problem gamblers not alike:

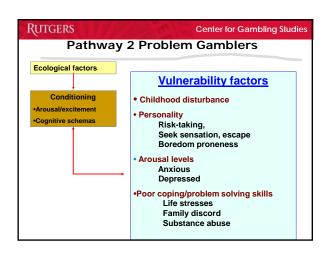
- Three (or more) distinct pathways to problem gambling
- Gamblers in each pathway differ by presence or absence of psycho-social, biological factors & behavioral manifestations
- Gamblers in different pathways require different treatment strategies for success

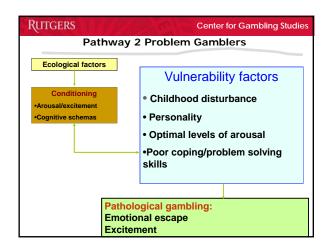
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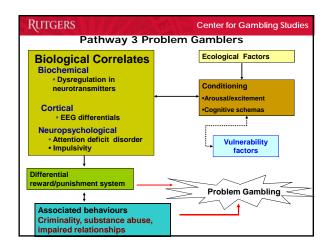
Pathway 1 Problem Gamblers Ecological factors Availability Accessibility Acceptability Acceptability Classical & Operant Conditioning Arousal/excitement Subjective excitement Physiological arousal Erroneous Cognitions Irrational Beliefs Illusions of control Biased evaluations

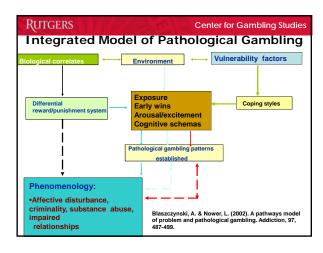














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Advances in Etiology Since 2002

Researchers have identified a number of potentially significant predictors:

- Autonomic arousal
- Anger
- Shame, guilt
- Self-loathing/self-hatred

- Steress-coping styles
 Social support
 Gambling motivations
 Eating patterns
- Erroneous cognitions alone

What was **unknown** is whether these factors are common across types or specific by subtype.

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GPQ Project

- Funded by the Ontario Problem Gambling Research Centre (now Gambling Research Exchange Ontario)
- · Multi-year, multi-site study with treatment-seeking
- Objectives were to:
 - Explore the etiological factors suggested by the Pathways Model and identify those that significantly differentiate among sub-

 - and identify those that significantly consumptions groups if any.

 Test an exhaustive list of potential etiological factors that may inform or otherwise alter the final model.

 Develop a reliable and valid etiological screening instrument for use in treatment settings internationally.

 Revise the Pathways Model to reflect findings from the empirical

RUTGERS **Center for Gambling Studies** Literature and Expert Review · Identified, obtained and reviewed available instruments purporting to tap facets of constructs in the model and emerging areas. Identified facets of key constructs and wrote several questions to tap each construct. • Submitted all questions to seasoned gambling counselors with 10 or more years experience for review, comments and suggestions. Added questions on health motivation, pain • Submitted revised questionnaire, along with four response format choices, to gamblers in recovery for review, comments and suggestions. Added questions on sexual risk taking, including paying for sex and risky sex. Added questions on binge eating, gambling as retaliation, unhealthy enmeshed relationships. Selected 6-point Likert with no middle category, verbal endpoints with numbers. RUTGERS Center for Gambling Studies **Participants** • Total participants = 1170 (750, development sample; 426 validation sample) • Treatment-seeking problem gamblers (1+ symptoms on PGSI) from: - 7 treatment centers/hospitals in Ontario - 12 facilities in five U.S. states - Three clinics in Sydney, Australia area · Gender breakdown: Development sample: 296 women (39.5%), 453 men (60.5%) Validation sample: 177 women (41.6%) and 248 men (58.4%) **RUTGERS Center for Gambling Studies** Exploratory Factor Analysis (EFA) · Principal axis factoring performed on development sample and 62 "core" items (nine subscales) suggested by the Pathways Model: Pre- and post- depression, anxiety, substance use (alcohol, prescription drugs, over-the-counter drugs, illicit drugs) - Child maltreatment (neglect, physical & sexual abuse, witnessing trauma) Parent/Caregiver addiction - Impulsivity - Risk-taking - Narcissistic traits - Anti-social traits/behavior ADHD symptoms

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Exploratory Factor Analysis (EFA)

- Items with low commonalty and low factor loading (under 0.55) and those with cross-loading were removed, leaving four factors and 33 items.
- 65 experimental items added to the model:
 - Health concerns
 - Anger
 - Overeating (binge eating)
 - Shame, self-hate, guilt
 - Sexual risk-taking
 - Social support
 - Motivation (meaning/purpose, emotion-focused, social, stress-coping, cognitive)
- EFA was rerun, yielding 6-factor model of 48 items, including both core and experimental items.

Final Factors Factor 1: Anti-social, impulsive risk-taker (13.15%) Factor 2: Stress coping (14.11%) Factor 3: Childhood maltreatment (6.71%) Factor 4: Emotional vulnerability pre-gambiling (5.20% Factor 5: Emotional vulnerability post-gambiling (3.32%) Factor 6: Meaning and Purpose (3.13%)

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Confirmatory Factor Analysis (CFA)

- CFA was performed on validation sample with the final EFA items.
- Fit indices (NFI, TLI, CFI, RMSEA) indicated good model fit.
- Final model had 48 items and six factors.

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Final Path Analysis	

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Scoring

- Factor analyses identified key etiological indicators and final questions.
- However, to assign clients to individual pathways requires differentiating among those factors and establishing clear cut-scores.
- Carried out cluster analysis using means of the nine subscale items and two stand-alone items for pre and post depressive symptoms.
- Identified a three-cluster solution to use in K-means cluster analysis.
- Using means and standard deviation data for variables by cluster, we established high/medium/low scoring for variables.
- Final solution correctly classified 88.6% of participants in the data.

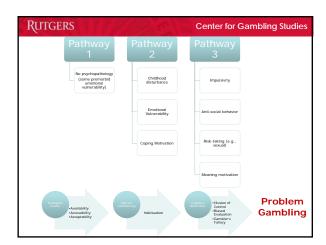
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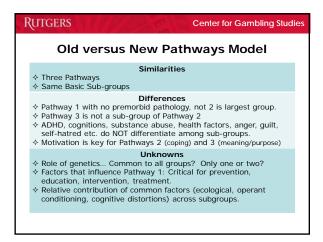
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Final Clusters

- Cluster 1 (n=506, 43.21%): Lower in all variables than Cluster 2; lower in everything but pre-gambling emotional vulnerability (anxiety, depression) than Cluster 3.
- Cluster 2 (n=477, 40.73%): Highest in pre- and postanxiety and depression as well as child maltreatment and coping motivation (ns with 3).
- Cluster 3 (n=188, 16.05%): Highest in anti-social traits, impulsivity, risk taking including sexual risktaking, and meaning motivation. Lowest in pregambling emotional vulnerability.



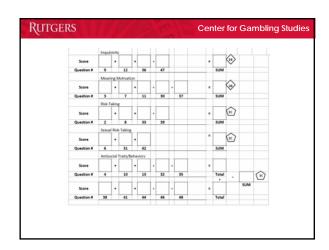


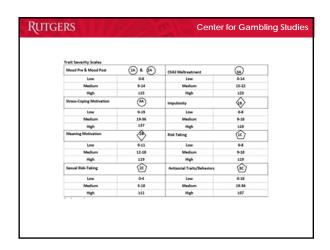


Using the GPQ with a Clinical Population	Center for Gambling Studies	
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Gambling Pathways Questionnaire	(GPQ)	
The following statements refer to your views about gambling and be Please check ONE box that best reflects how much you agree or dis	beliefs about yourself and your life.	
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CONTRACTOR	DISAGREE AGREE 1 2 3 4 5 6	
I gamble mainly to relieve tension, to "blow off steam."		
I like doing or saying crazy things just to shock others. Gambling gives me purpose in life.		
I often say mean and hurtful things when I'm angry.		
5. When I gamble, I can forget my responsibilities for a while,		
6. If I want sex, I am willing to pay for it.		
A big win at gambling would give my life meaning.		
Fill often take a dare, even if it's dangerous. 9. I frequently buy things on impulse, even if I can't afford them.		
When I'm angry, I always feel better if I can hit or throw		
something. 11. If I won at gambling, I wouldn't feel like such a failure.		
12. I am often impatient when standing in line or waiting for other		
people. 13. I only follow the rules if I think I could get caught.		
14. I gamble mainly to cope with the stress and pressures of life.		
The second second	Center for Gambling Studies	I
The next series of statements refer to feelings and behaviors you		
gambling became a problem for you. The questions will repeat, I depending on the time frame. Please check ONE box for each star		
"BEFORE gambling became a problem for me"	Strongly Strongly DISAGREE AGREE	
	1 2 3 4 5 6	
15. I often felt panicky.		
16. Foften felf tense and nervous.		
17. I worried a lot. 19. Letter felt and and down for pariods of time (letting at least).		
 I often felt sad and down for periods of time (lasting at least two weeks). 		
	Strongly Strongly	
"SINCE gambling became a problem for me"	DISAGREE AGREE 1 2 3 4 5 6	
19. I often feel panicky.		
20. I often feel tense and nervous.		
21. I worry a lot.		
 I often feel sad and down for periods of time (lasting at least two weeks). 		

Next, we would like to ask you about things you experienced as a child or teenager. Please check ONE box that best reflects to what extent you disagree or agree with each statement. "As a child or teenager, I was" "As a child or teenager, I was" "As a child or teenager, I was" DisAGREE 1 2 3 4 5 6 23. Hit, punched, or kicked at home. 24. Frequently teased or builled at school. 25. Often called hurtufu names like "vorthless," 'no good," or shabed. 26. Subjected to unwanded or inapprepriate sexual contact. 27. Abandoned emotionally or ignored by my caregivers. 28. Often left at home alone or without proper clothing, food, heat or other necessities. 29. Exposed to (witnessed) physical violence against someone else. Finally, a few more questions about your views on gambling and beliefs about yourself and your life. Please check ONE box that best reflects how much you disagree or agree with each statement. DisAGREE AGREE 30. The only time I feel important is when I'm gambling. 31. I will pick up someone just for sex. 32. Since childhood, I've always been prone to get in trouble. 33. I would bet on anything just for the excitement. 34. I gamble to distract myself from problems. 35. If necessary, I'll do illegal things unrelated to gambling.	## Strongly AGREE 1 2 3 4 5 6 6 1	Strongly Strongly Strongly Strongly Addition Strongly Addition Strongly Addition Addition	Strongly "As a child or teenager, I was" Strongly Strongly Strongly Strongly AGRE 23. Hit, punched, or kicked at home. 24. Frequently teased or bullied at school. 25. Often called hurtful names like "worthless," "no good," or stuped. 26. Subjected to unwanted or inappropriate sexual contact. 27. Abandoned emotionally or ignored by my caregivers. 28. Often left at home alone or without proper ciothing, food, heat or of their inclusions. 29. Exposed to (witnessed) physical violence against someone elice. Finally, a few more questions about your views on gambling and beliefs about yourself and your life. Please check ONE box that best reflects how much you disagree or agree with each statement □. Strongly DISAGRE 30. The only time I feel important is when I'm gambling. 31. I will pick up someone just for sex. 22. Since childhood, I've always been prone to get in trouble. 33. I would bet on anything just for the excitement. 34. I gamble to distract myself from problems.
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The number is (2) is greater than or equal to 22. SUBTRACT 2 from Seb-Total TOTAL No
If BOTH conditions, for Pathways 2 and 2 are met, easign to Pathway 2. If MERIER condition for Pathway 2 or 2 is met, easign to Pathway 2. Final Pathway: Pathway 1 Pathway 2 or 2 is met, easign to Pathway 1. Final Pathway: Pathway 1
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Example 1 "Hi, my name is William. I'm 54,
married, with two young children. I started gambling young – around 10 years old – with my Dad who loved the horses.
By high school, I was at the track after school and on weekends most
days. Now, I'm in debt about \$40,000 and can't pay my mortgage or car payments. It's not the first time, but I'm really depressed and
anxious now. I gamble when I'm supposed to be working. I'm worried my wife is going to find out about
this. We've been married nearly 30 years and this is going to kill her."
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What else would you want to ask William?
What was your home life growing up as a child (probe for abuse, neglect, parental addiction)
"What home life? My dad was always at the track and my mom sat on the couch and ate. My sister and I were on our own. I was
the oldest so I pretty much raised us both."

RUTGERS Center for Gambling Studies • History of depression/anxiety: any symptoms of mood disorders before his gambling became a problem. "I have always felt a little more down and, if I'm honest, a little more anxious than other people. Even as a kid. Maybe it's just low self-esteem but I never felt really happy. Never saw anyone for it though." RUTGERS Center for Gambling Studies · History of anti-social and impulsive acts "Nah. I was always the quiet, studious kid who never got in trouble. My dad was another story – always in and out of jail. Since gambling became a problem, I've written a couple of bad checks but never before." **RUTGERS** Center for Gambling Studies • Problems coping with stress (Avoidant or emotional venting rather than planning when faced with stress) "My job is a pressure cooker. I'm an air traffic controller. I used to deal with all the stress by zoning out in front of the TV or playing video games. Now I play slots online..."



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 Hx of child neglect, parental addiction, mood disorder, avoidant stress coping...



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Clinical Characteristics: Pathway 2 Problem Gamblers

- Dysfunctional/traumatic childhood, family
- · Situational stresses
- Poor stress-coping skills
- Anxiety or depression both before and after the onset of gambling problems.
- Gambles primarily for escape or to combat aversive mood states.

RUTGERS Center for Gambling Studies Example 2 "Hi, my name is Anna. I'm 84, and widowed. I always thought my life was happy... I raised five kids and had a nice, hardworking husband. We weren't rich, but we did alright and saved our money. Then my husband died. My kids are grown and all live in Different states. I used to play bingo at the church every week, but now I just take the bus to the casino. Love the slot machines. I've lost pretty much all my savings but my kids RUTGERS Center for Gambling Studies What else would you want to ask Anna? • History of mood disorder symptoms...

"Did I used to be sad or anxious? Never had any problems like that. I had a great life. Was a stay-at-home mom like my mother Then I watched my grandkids before

my daughter moved away..."



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· History of any other mental health or addiction counseling?

"I went to counseling with my daughter when my grandson got in trouble at school. The counselor thought it would help to have me there. But I never went for personal reasons. Never had a need to..."

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Main reasons for gambling

"Being alone in the house made me sad. So many memories. No one left to share them with. Going to bingo and playing machines are exciting – so much noise and hope. Like being young again. It makes me feel young again."



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Which Pathway would you choose for Anna?



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No Hx of mental health or addictive problems before gambling



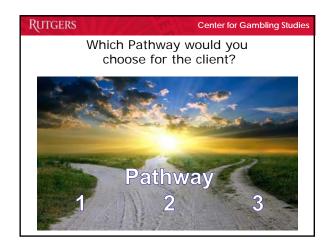
RUTGERS Center for Gambling Studies Example 3 I'm Antonio. I'm 27 and single with no kids I know about. My whole family gambles so I have no clue when I started. My mom and dad liked to drink. I started drinking about 12 and have to really watch it. I work as a mechanic – never did much in school. Got into fights and some juvi trouble. Got kicked out in 9th grade for starting a fire. Not much on relationships either - I mean, real relationships. I have a lot of sex but half the time don't remember who with because I'm wasted. I've had a few problems with the law and trouble keeping jobs because I'm not really a 9-5 guy. If I feel like doing something, I just do it. And I've done a ton of crazy things besides gambling. When I'm gambling I feel like I'm on top of the world. Never mind the next day. The next day's always a bummer...that's when I wake up and wonder why I'm still here...

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What	else would you want to ask
	Antonio?
"You name it nose. Left a j a lady who n	mpulsivity and risk-taking As a kid I jumped off a roof and broke my ob once by dumping a sundae in the lap of ade me mad. I kind of just go with the t of the time."

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History of abuse and neglect "My Dad? (Laughs) Yeah he was a come home and unload on my mom. more I'd protected her and he'd beal crap out of me. By the time I was in middle school, I could get him to back off. Wonder one of us isn't dead already"	The older I got, the

Other examples of risk-taking behavior "You name it. Unprotected sex, skydiving, riding the top of a subway train. If it gives me a rush, makes me feel something. If someone dares me, I'm gone."

• History of anti-social acts (recent, not just as a child) "Well... let's see... First arrest was for vandalism in school. Marijuana possession. Minor assault. Burglary... Most jail time I've ever done was 30 days but that's just because I'm lucky."



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 Impulsivity, risk-taking including sexual, other addictive behaviors, child abuse, meaning motivation



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Utility in Forensic Populations

- · Case Study: John is a 35yo day laborer.
- Father: Successful business owner in Chicago; constantly cheated on his mother and engaged in shady business practices; physically abusive to John.
- · John was raised with the best of everything.
- When John was 16, his father went to prison and he and his mother and younger brother moved to a small town to live with family.
- John started getting in trouble; was briefly suicidal.
- John's brother got on drugs.
- John was in and out of juvi for criminal mischief, theft, vandalism and assault.

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- John's friends drank and did drugs.
- John always worked and started his own business; successful and dependable.
- When John was 25, he went to a casino and discovered craps.
- · Early big win.
- Continued gambling from occasional to regularly to habitually.
- Spent everything on gambling, started neglecting his business.
- His best friends both died. His father got out of jail but back into bad business.
- John got mixed up in his father's business and was arrested.

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- John's fiancé left him and he began gambling day and night, borrowing from loan sharks, doing more drugs.
- · Contemplated suicide.
- Robbed a series of banks and, each time, went straight to the casino and blew through the money.

What pathway is John?
Based on that, where do you think you would target some of your efforts?

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