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People can listen to the presentation on the UCLA Gambling Studies YouTube channel: https://www.youtube.com/watch?v=DYYrZ6G7oW0&t=1457s

Rory C. Reid, Ph.D., LCSW, ICGC

Asst Professor of Psychiatry

Rory Reid

Research Psychologist

UCLA Department of Psychiatry

# Mindfulness Applications for Problem Gambling

Dr. Rory C. Reid, Ph.D., LCSW, ICGC-II

Asst Professor of Psychiatry, Research Psychologist Licensed Clinical Social Worker International Certified Gambling Counselor

Department of Psychiatry and Biobehavioral Sciences
Resnick Neuropsychiatric Hospital
University of California Los Angeles

Email: roryreid@ucla.edu





# What is Mindfulness?





- Mindfulness is a philosophy and a practice of cultivating increased awareness of our moment-to moment experience in a non-judgmental way.
- The practice of mindfulness, although based on many principles of Buddhism, was medicalized by Dr. Jon Kabat-Zin and has been applied to a variety of psychological and medical issues.



### **Attention**

1. Self-regulation of <u>attention</u> so that it is maintained on <u>immediate experience</u>, thereby allowing for increased recognition of mental events in the present moment.

### Attitude

 Adopting a particular orientation toward one's experiences in the present moment, characterized by curiosity, openness, and <u>acceptance</u>.

Bishop, et al, 2004., Clinical Psychology: Science and Practice, 11(3), 230-241.

- Mindfulness is often cultivated through meditation practices.
- Meditation is a vehicle to cultivate a wide array of mindful moments that enhance our ability to regulate attention and reorganize our experience with the present moment in a way that often leads to increased insight and awareness.
- Strengthening by straining, stressing, and stretching muscles.
- Enhancing attention creates mental stress...it wouldn't be rare to find a lot of grunting or groaning during the process. Encourage patients to believe in themselves and search for "hidden tigers"

Mindfulness is often cultivated through meditation practices. Don't get confused. People often say mindfulness <u>is</u> meditation. This would be like saying taking a road trip as part of a vacation is synonymous with <u>just</u> traveling in a car. While a car is the vehicle through which one is able to visit various destinations that contribute to the overall vacation experience, we would be amiss to limit the description of a vacation to simply just riding in a car.

Anyone whose been on a road trip knows there are a 1000 small breath-taking moments where we experience majestic views. Similarly, meditation is a vehicle to cultivate a wide array of mindful moments, experiences, and increased levels of new awareness.

# Mindfulness is Often Cultivated through Meditation Practices



### Mindfulness is Had in the Experience of Being Present with the Present



# Generalizing Mindfulness Principles to Problem Gambling: Lessons from Karate Kid



# Problem Gambling

### Mindfulness

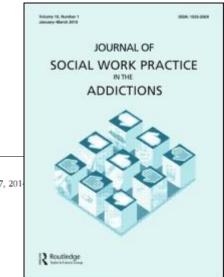
Shame ————————————————————————————————————	Self-Compassion
Boredom —	Awareness
Stress Proneness —	→ Letting Go of Stories
Impulsivity —	Noticing, Curiosity
Entitled, Ungrateful	Gratitude, Humility
Emotionally Reactive————————————————————————————————————	→ Emotionally Present, Curiosity
Intolerance for Discomfort	Reorganize Relationship with Suffering
Critical, Judgmental	→ Open, Non-Judgmental
Rumination	→ Reflection
Anxiety/Depression ————————————————————————————————————	Letting Go, Being Present
Tug of War with Cravings ————————————————————————————————————	Non-Judgmental Acceptance
Special Status to Thoughts	Thought is Just a Thought, Letting Go
Thought Suppression, Compartmentalizing — Disconnecting, Inattentive, Dissociative	Open, Integration  Attentive, Present

- Increases tolerance for uncomfortable feelings; learning to be present, curious, open, and non-judgmental of emotions
- 2. Stress coping through letting go of the stories that give rise to stress and regulating breathing helps reduce stress
- **3. Reorganizing relationships with cravings**; letting go of thoughts about cravings, being present in the body, curious about cravings, open, nonjudgmental

- **4. Enhances ability to regulate attention**, sustained focus on whatever is happening at the moment; letting go of distracting thoughts and refocusing attention again and again
- **5. Reduces impulsivity** through helping people be present with the "**space**", increasing levels of self-control, and reducing the effect of emotional dysregulation on impulsive responses

"Gambling-disordered patients exhibited significantly lower levels of mindfulness, emotional regulation, stress coping, and impulse control compared to the non-gambling-disordered group. Overall, gambling severity was negatively associated with higher levels of mindfulness and positively linked to indices of emotional dysregulation, stress proneness, and impulsivity. Correlations between mindfulness and emotional dysregulation and impulsivity were much stronger than those between mindfulness and the severity of disordered gambling behaviors."

"Gambling-disordered patients exhibited significantly lower levels of mindfulness, emotional regulation, stress coping, and impulse control compared to the non-gambling-disordered group. Overall, gambling severity was negatively associated with higher levels of mindfulness and positively linked to indices of emotional dysregulation, stress proneness, and impulsivity. Correlations between mindfulness and emotional dysregulation and impulsivity were much stronger than those between mindfulness and the severity of disordered gambling behaviors."



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### ARTICLES

### Mindfulness in Patients With Gambling Disorders

### RORY C. REID, PHD, LCSW

Clinical Research Psychologist, Department of Psychiatry, University of California, Los Angeles, Los Angeles, California, USA; Harvard Medical School, Harvard University, Boston, Massachusetts, USA

### CHLOE DI TIRRO, BS

Research Assistant, Department of Psychiatry, University of California, Los Angeles, Los Angeles, California, USA

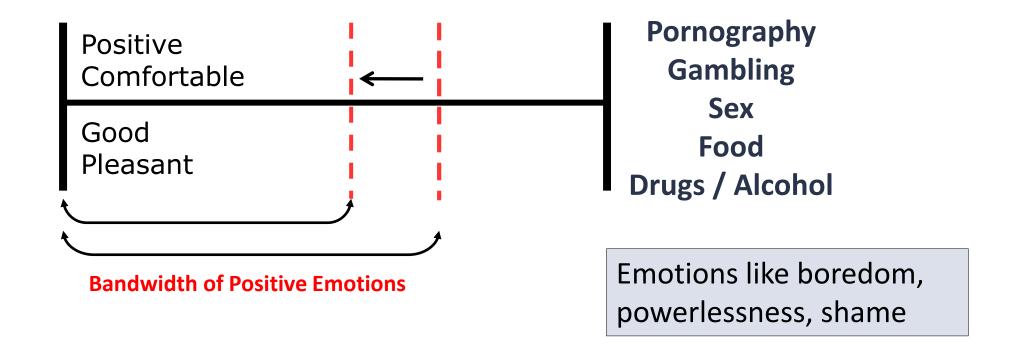
### TIMOTHY W. FONG, MD

Associate Professor, Department of Psychiatry, University of California, Los Angeles, Los Angeles, California, USA

This study explored facets of mindfulness between patients diagnosed with a gambling disorder (n = 26) and a community sample of non-nambling disordered individuals (n = 33). Multivariate

Increases tolerance for uncomfortable feelings; learning to be present, curious, open, and non-judgmental of emotions, self-awareness

### Increasing Tolerance for Unpleasant Experiences

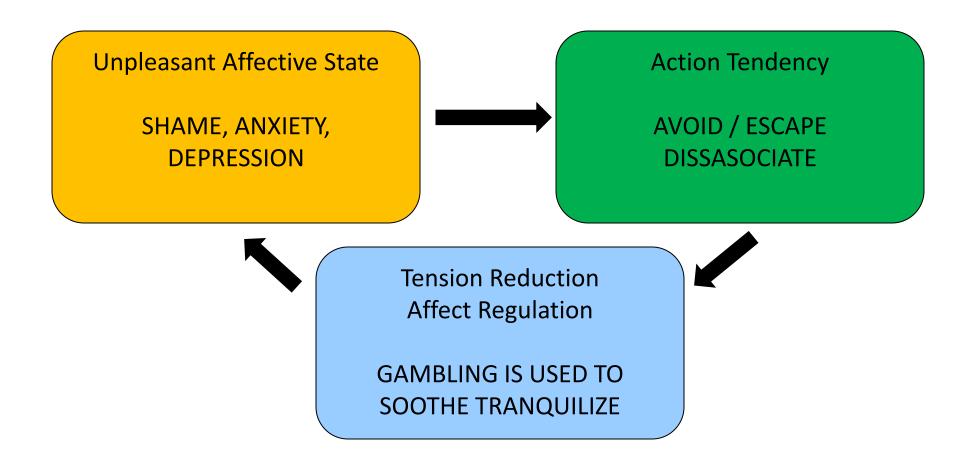


Emotionally avoidant people become numb and detached from both good and bad feelings. True, they've avoided pain and negative emotion, but they've also diminished or extinguished their ability to feel positive emotions.

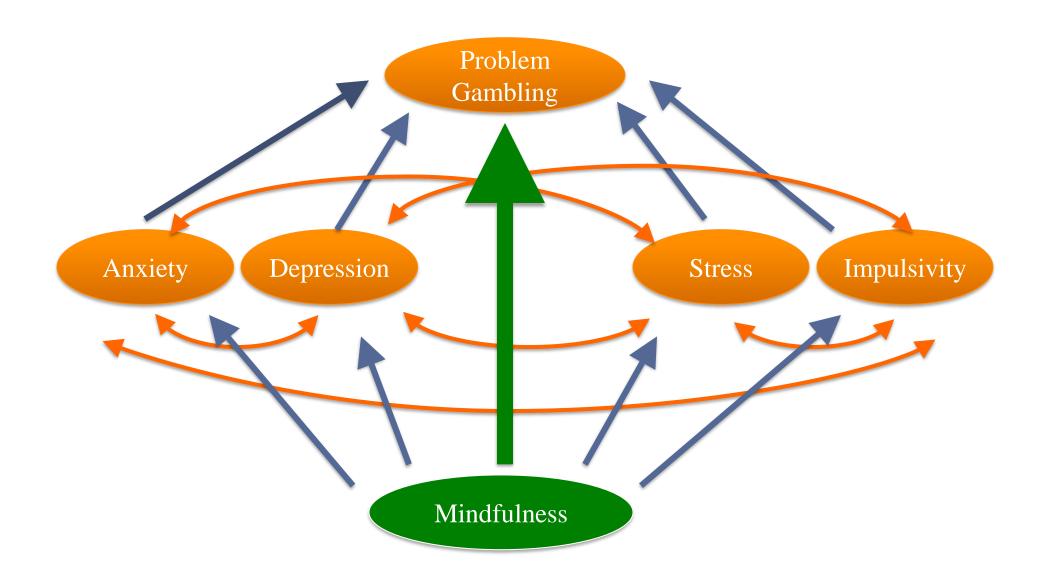
# Contrast Helps Us Appreciate Differences through Comparisons



### Affect Regulation or Tension Reduction Model



### Affect Regulation, Mindfulness, and Problem Gambling



**Stress coping** through letting go of the stories that give rise to stress and regulating breathing helps reduce stress

### Mindfulness, Problem Gambling, and Stress

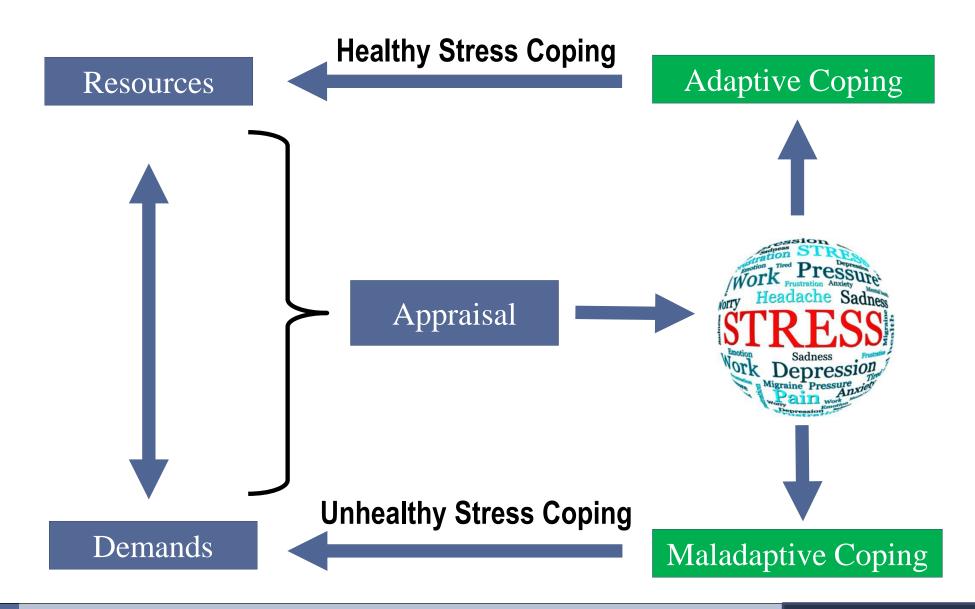
Persistent and recurring problematic gambling behavior leading to clinically significant impairment or distress...



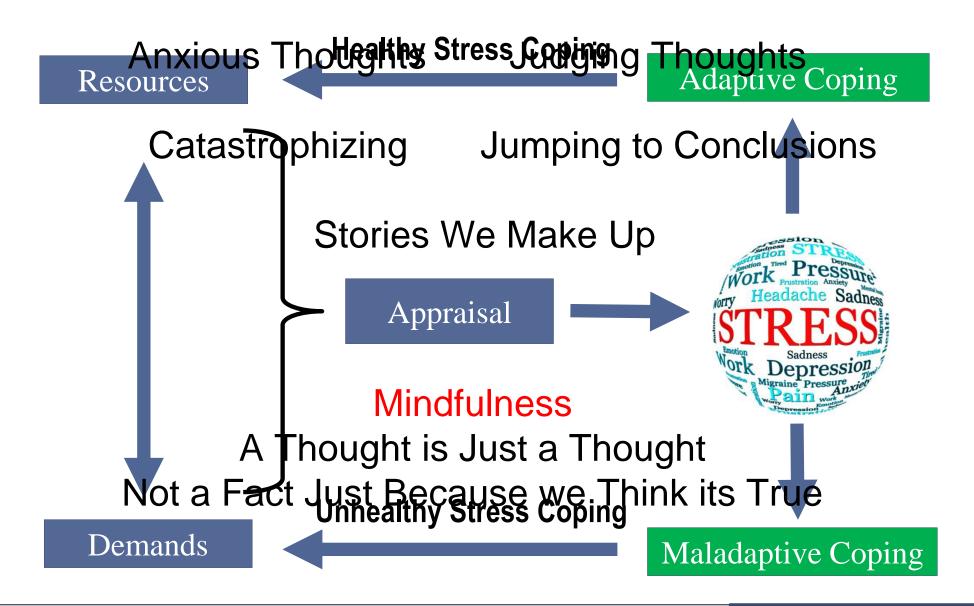
# **CIRCULARITY**

Often gambles when feeling distressed

### Mindfulness and Stress

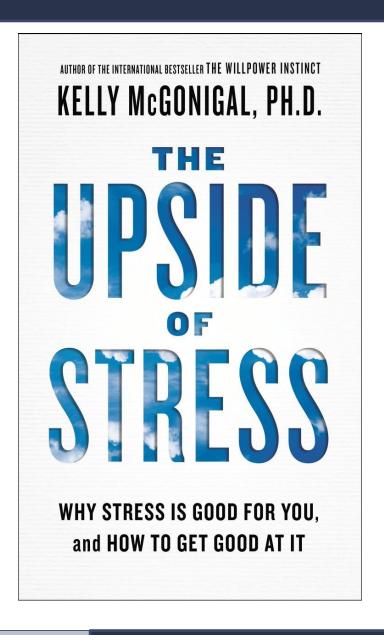


### Mindfulness and Stress



### Dr. Kelly McGonigal: Making Stress Your Friend





Reorganizing relationships with cravings; letting go of thoughts about cravings, being present in the body, curious about cravings, open, non-judgmental

# Reorganizing Relationships with Cravings









### Reorganizing Relationships with Cravings

"...acceptance was found to reduce the extent to which participants experienced loss of control when exposed to food cues. This finding is not only practically relevant, but interesting from a theoretical point of view as well. After all, acceptance requires one *not* to control cravings, which paradoxically leads to higher levels of perceived control."



Hugo J.E.M. Alberts \*, Sandra Mulkens, Maud Smeets, Roy Thewissen

ARTICLE INFO

Received 23 March 2010

The present study examined whether mindfulness-based strategies can effectively reduce food craving in an overweight and obese adult population. Individuals participating in a dietary group treatment for overweight received an additional 7-week manual based training that aimed to promote regulation of cravings by means of acceptance. The control group did not receive this additional training program. The results showed that participants in the experimental group reported significantly lower cravings for food after the intervention compared to the control group. The findings are discussed in terms of possible mechanisms like prevention of goal frustration, disengagement of obsessive thinking and reduction of automatic relations between urge and reaction.

pathological, but can nevertheless lead to a diverse range of without acting upon it.

Food cravings, defined as an intense desire or urge to eat a between current and goal state. Instead, acceptance is aimed at specific food (Weingarten & Elston, 1990) are not essentially promoting willingness to experience the current state, the craving

negative outcomes. For instance, past research has demonstrated a Recently, a treatment study by Tapper et al. (2009) illustrated

Alberts, Mulkens, Smeets, & Thewissen (2010). Coping with food cravings. Investigating the potential of a mindfulness-based intervention. *Appetite*, 55, 160-163.

### Dr. Hedy Kober, Yale University: Mindfulness and Urges, Cravings







### Reorganizing Relationships with Cravings

- Addictive cravings are powerful and can be intense
- Patients often get into a tug-of-war with cravings
- Patients often give special status to cravings
- Patients have an adversarial relationship with cravings



Reorganize relationship with craving to co-exist: Neither <u>avoiding</u> nor <u>indulging</u>, just being present in a non-judgmental, curious manner.

Mindfulness may recruit brain religions not implicated in executive deficits



### Numerous Studies Investigating Cravings and Mindfulness



Published in final edited form as:

Psychol Addict Behav. 2013 June; 27(2): 366-379. doi:10.1037/a002

Craving to Quit: psychological models and mechanisms of mindfulness training as tre

Judson A. Brewer<sup>1,\*</sup>, Hani M. Elwafi<sup>1</sup>, and Jake H. Davis<sup>2</sup>

<sup>1</sup>Department of Psychiatry, Yale University School of Medicine, N

iatry, Yale University School of Medicine, N

Clinical Psychology Review

Volume 59, February 2018, Pages 101-117

Review

Mindfulness and craving: effects and mechanisms

Katy Tanner 🖾

<u>Drug Alcohol Depend</u>. Author manuscript; available in PMC 2014 Jun 1. Published in final edited form as:

Drug Alcohol Depend. 2013 Jun 1; 130(0): 222-229.

Published online 2012 Dec 21. doi: 10.1016/j.drugalcdep.2012.11.015

PMCID: PMC3619004 NIHMSID: NIHMS430593 PMID: 23265088

Mindfulness training for smoking cessation: moderation of the relationship between craving and cigarette use

Hani M. Elwafi, 1 Katie Witkiewitz, 2 Sarah Mallik, 1 Thomas A. Thornhill, IV, 1 and Judson A. Brewer 1,\*

Author information - Copyright and License information <u>Disclaimer</u>

The publisher's final edited version of this article is available at <u>Drug Alcohol Depend</u> See other articles in PMC that <u>cite</u> the published article.

Abstract Go to: ♥

### Background

Randomized

doi: 10.1080/

Therap

Recove

Smoking is the leading cause of preventable death in the US, while abstinence rates remain modest. Smoking has been shown to be perpetuated by operant conditioning, notably negative reinforcement (e.g., smoking to relieve negative affective states). Mindfulness training (MT) shows promise for smoking cessation, by potentially altering an individual's tendency to smoke in response to craving. The purpose of

)/10550887.2018.1442617

isorder (IGD) is characterized by signs and symptoms similar to isorders, and associated with psychosocial impairments. Research ning-related cognitions and coping may be implicated in IGD; therefore, arget these underlying mechanisms. Mindfulness-based treatment is

NIH-PA Author Manuscript

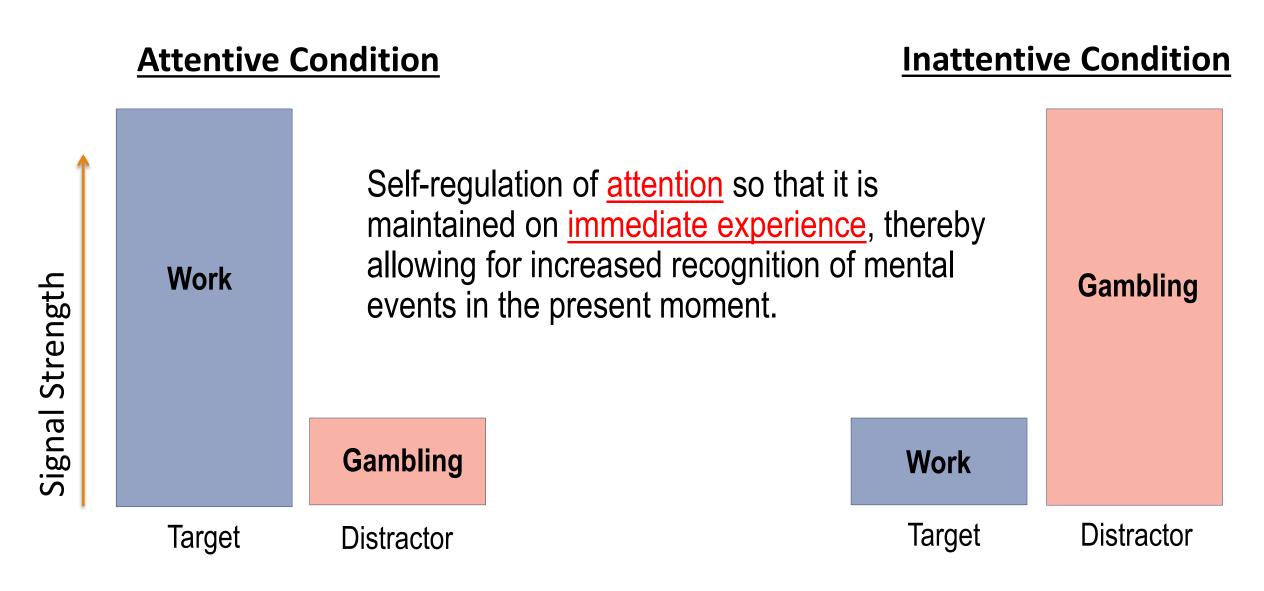
Enhances ability to regulate attention, sustained focus on whatever is happening at the moment; letting go of distracting thoughts and refocusing attention again and again

### Gambling Disorder as an Attentional Problem

Inability to sustain attention and vigilance on the target stimuli, and inhibit focused attention to the distractor stimuli.



# Problem Gambling: Attention Model of Addiction





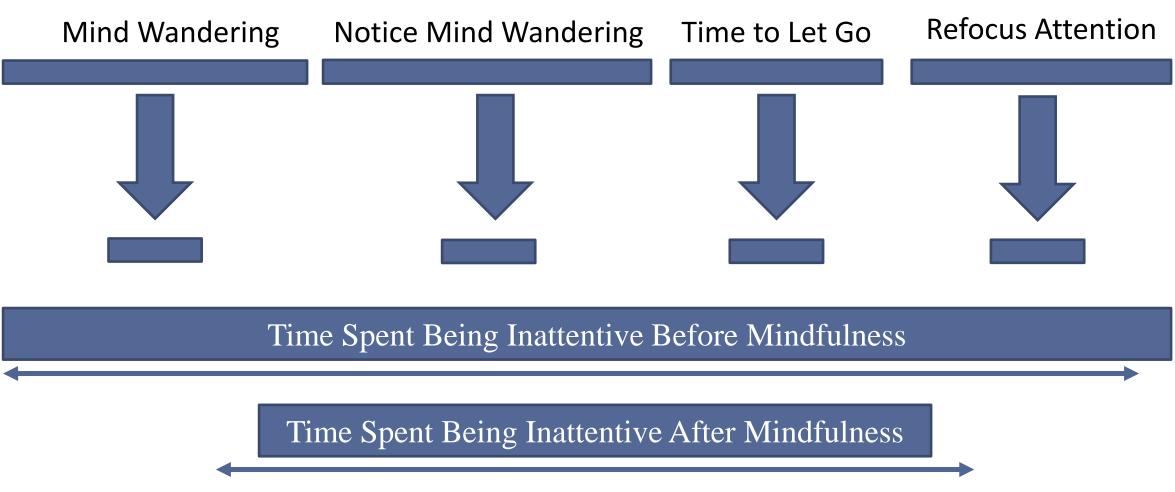
# Self-Regulating the Ability to Focus and Sustain Attention



What if mindfulness could help us focus attention on things that matter and disinhibit their attention from thoughts, feelings, or urges they may have to engage in problematic gambling behavior?

# Mindfulness and Attention: Self-Regulation of Attention

Decreases the amount of time spent mind wandering and increasing the speed in which we return to being present and focusing our attention

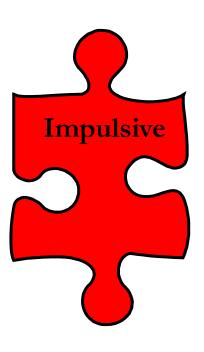




Reduces impulsivity through helping people be present with the space, increasing levels of self-control, and reducing the effect of emotional dysregulation on impulsive responses

Impulsivity: tendency to act rashly without forethought...

- 1. Negative Urgency
- 2. Positive Urgency
- 3. Sensation Seeking
- 4. Lack of Premeditation
- 5. Lack of Perseverance



**Negative Urgency**: Tendency to act rashly in response to negative affective experiences or impulsivity when experiencing unpleasant emotions (e.g. feeling bad, upset, rejected etc...). A few items on this scale capture difficulty resisting cravings and feelings.

Positive Urgency: Tendency to exhibit diminished control in the wake of positive emotions (e.g. excited, happy).

**Sensation Seeking**: Items on this subscale measure tendencies to engage in excitement-seeking, novelty, or thrilling experiences. Correlated with greater risk-taking.

Lack of Premeditation: Paucity of future directed thinking about consequences prior to making decisions leading to careless choices without purposefully thinking about the ramifications of decisions or weighing the advantages/disadvantages of their actions.

Lack of Perseverance: A lack of diligence, persistence, and the ability to follow tasks through completion often manifest by tendencies to quit prematurely, become distracted, difficulties with task completion and are positively correlated with boredom proneness and procrastination.

Addictive Behaviors 39 (2014) 1640-1645



Contents lists available at Science Direct

### **Addictive Behaviors**



Psychometric properties of the Barratt Impulsiveness Scale in patients with gambling disorders, hypersexuality, and methamphetamine dependence



Rory C. Reid a,\*, Melissa A. Cyders b, Jacquelene F. Moghaddam a, Timothy W. Fong a

- <sup>a</sup> Department of Psychiatry and Biobehavioral Sciences, University of California, Los Angeles, United States
- Department of Psychology, Indiana University-Purdue University, Indianapolis, United States

### HIGHLIGHTS

- · Barratt Impulsiveness Scale factor structure is assessed in three clinical samples
- . Modifications to the BIS resulted in a goodness of fit for a 3-factor model
- · Minor variations in impulsivity exist between our three populations
- · Approximately half of patients in each group exhibited high impulsivity
- · Future studies with addictive populations should consider this modified BIS

### ARTICLE INFO

Available online 19 November 2013

Keywords:
Barratt Impulsiveness Scale
Gambling disorder
Hypersexual behavior
Substance-abuse
Impulsivity
Addiction

### ABSTRACT

Although the Barratt Impulsiveness Scale (BIS; Patton, Stanford, & Barratt, 1995) is a widely-used self-report measure of impulsivity, there have been numerous questions about the invariance of the factor structure across clinical populations (Haden & Shiva, 2008, 2009; Ireland & Archer, 2008). The goal of this article is to examine the factor structure of the BIS among a sample consisting of three populations exhibiting addictive behaviors and impulsivity: pathological gamblers, hypersexual patients, and individuals seeking treatment for methamphetamine dependence to determine if modification to the existing factors might improve the psychometric properties of the BIS. The current study found that the factor structure of the BIS does not replicate in this sample and instead produces a 12-tiem three-factor solution consisting of motor-impulsiveness (5 items), non-planning impulsiveness (3 items), and immediacy impulsiveness (4 items). The clinical utility of the BIS in this population is questionable. The authors suggest future studies to investigate comparisons with this modified version of the BIS and other impulsivity scales such as the UPPS-P Impulsive Behavior Scale in clinical populations when assessing disposition toward rash action.

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# Clinical Levels of Impulsivity

Gamblers 48.8%

Hypersexuals 48.0%

Meth Abusers 44.4%

Those with addictions constitute a heterogeneous population!

SUGGESTS SUBTYPES

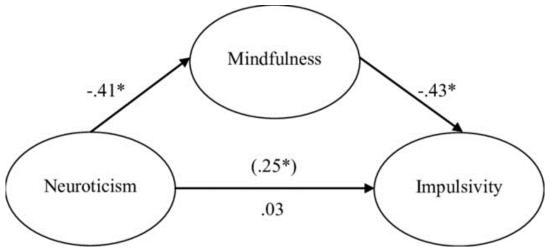
# Mindfulness and Problem Gambling

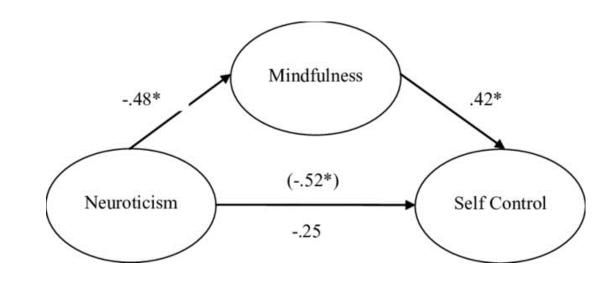
# NEUROTICISM AS A RISK FACTOR FOR BEHAVIORAL DYSREGULATION: A MINDFULNESS-MEDIATION PERSPECTIVE

ADAM K. FETTERMAN, MICHAEL D. ROBINSON, SCOTT ODE, AND KATHRYN H. GORDON North Dakota State University

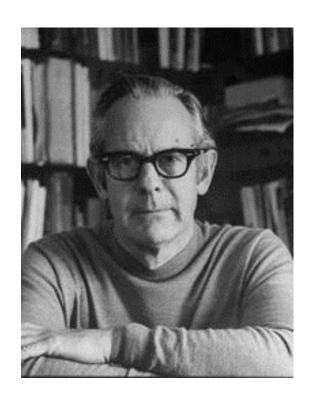
Neuroticism is an individual difference variable reflecting proneness to negative emotional experiences. High levels of neuroticism are often associated with impulsivity and behavioral dysregulation. Three studies, involving a total of 226 undergraduate participants, were conducted in an effort to better understand the relationship between neuroticism and behavioral dysregulation. Based on relevant theory, it was hypothesized that relations between neuroticism and behavioral dysregulation would be mediated by individual differences in mindfulness. As hypothesized, neuroticism was an inverse predictor of mindfulness and higher levels of mindfulness were associated with (a) lower levels of impulsivity and (b) higher levels of self-control, both assessed in dispositional terms. Furthermore,







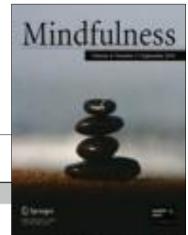
Between the stimulus and response there is a space...



Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.

—Dr. Rollo May (1963), Freedom and Responsibility Re-Examined

Mindfulness helps us pay attention to, be present with, and connect with this "space", and by being aware of the moment in a curious non-judgmental manner, we are more likely to respond in a healthy way to whatever stimuli's may arise. This is the antithesis of responding impulsively where we react to a sudden urge or stimulus without forethought. It's helping us slow down and give pause!



A Preliminary Investigation of the Relationships Between Dispositional Mindfulness and Impulsivity

Jessica R. Peters • Shannon M. Erisman • Brian T. Unton • Ruth A. Baer • Lizabeth Roemer

DOI 10.1007/s12671-011-0065-2

© Springer Science+Business Media, LLC 2011

Abstract Two studies examined the correlational relationships between self-reported mindfulness and impulsively in samples of 347 and 227 university students. Using multifurnesional measures of both mindfulness and impulsivity, results from both studies indicate that several aspects of mindfulness are negatively correlated with elements of future consequences; Barmat 1995; Patton et al. 1995), Am

# Mechanisms of Action: How Does Mindfulness Exert an Effect on Problem Gambling?

# **Summary Review**

- 1. Increases tolerance for uncomfortable feelings; learning to be present, curious, open, and non-judgmental of emotions
- 2. Stress coping through letting go of the stories that give rise to stress and regulating breathing helps reduce stress
- 3. Reorganizing relationships with cravings; letting go of thoughts about cravings, being present in the body, curious about cravings, open, non-judgmental

# Mechanisms of Action: How Does Mindfulness Exert an Effect on Problem Gambling?

- 4. Enhances ability to regulate attention, sustained focus on whatever is happening at the moment; letting go of distracting thoughts and refocusing attention again and again
- 5. Reduces impulsivity through helping people be present with the "space", increasing levels of self-control, and reducing the effect of emotional dysregulation on impulsive responses

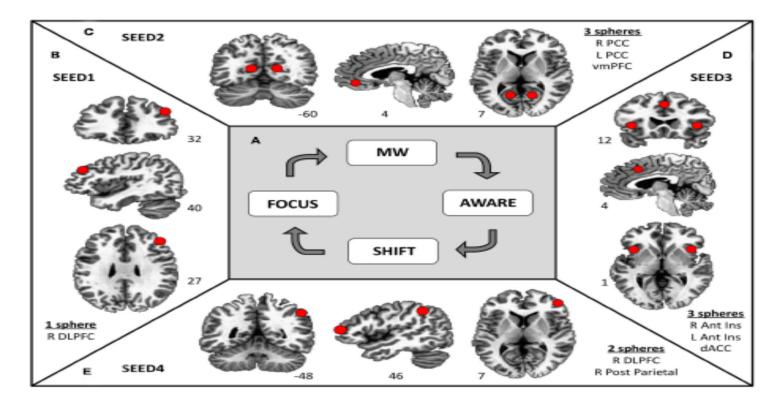
### frontiers in HUMAN NEUROSCIENCE



# Effects of meditation experience on functional connectivity of distributed brain networks

### Wendy Hasenkamp\* and Lawrence W. Barsalou

Department of Psychology, Emory University, Atlanta, GA, USA



Being aware of mind wandering: This is the practice of being attentive, alert, and aware of moments when your thoughts wander from the target stimuli (e.g. breathing). The more we practice being aware, the better we become in being aware sooner when thoughts wander and thus we are able to intervene in a more timely fashion. This reduces the amount of time spend being unaware and entertaining wandering thoughts. The moment we become aware of wandering thoughts is a mindful moment.

**Noticing where the mind has wandered**: Mind wandering can involve a variety of thoughts including planning thoughts, worrying thoughts, temptations, judging thoughts, making up stories in our minds, daydreaming, self-critical thoughts, etc... The practice of "noting" involves simply noticing where our mind has wandered. We don't judge mind wandering, it is neither good nor bad. We simply just note the process with openness and curiosity.

Letting go of tangential thoughts: Once we note where the mind has wandered, we let go of the wandering thoughts whatever they may be. This practice of letting go is important, especially when our wandering thoughts might lure us to follow them, or make up narratives about them. We must remember, that mind wandering is the antithesis of being mindful. The more we practice letting go and refocusing our attention, the more proficient we will become in our ability to "let go" in real world situations.

Refocusing attention: This is the process of refocusing our attention on being present, moment by moment, and sustaining our attention on whatever target stimuli we have chosen. It is this practice of refocusing that we do again, and again throughout the process of being mindful.



# Helping Patients Adopt a Spirit of Mindfulness



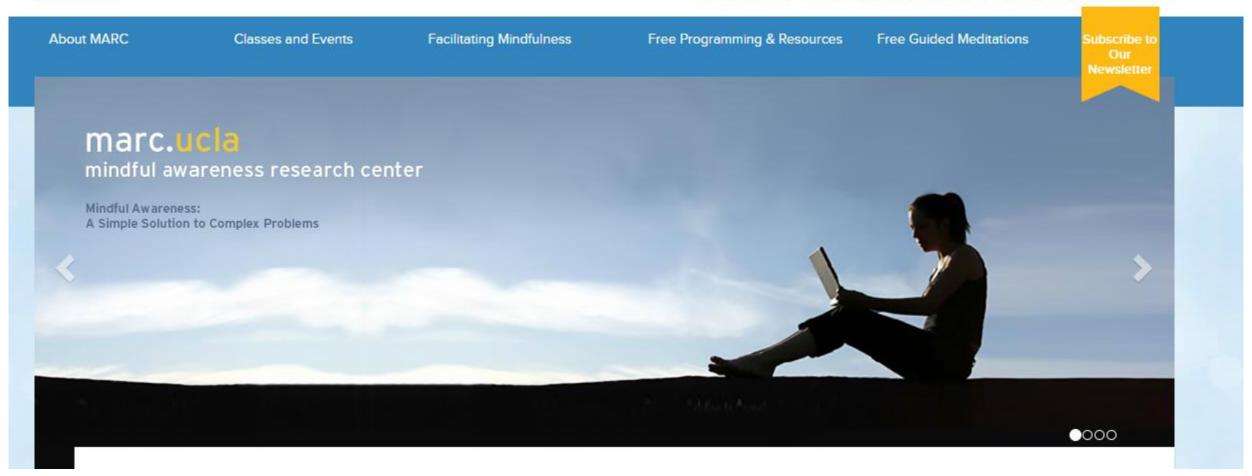
# Helping Patients Adopt a Spirit of Mindfulness



# Mindfulness and Problem Gambling



### UCLA Mindful Awareness Research Center



# Mindfulness and Problem Gambling ✓ CONTACT US ✓ GIVE A FACILITY REVIEW → ADD A REHAB FACILITY → PRO TALK → BLOG → AM I ADDICTED? → INTERVENTION SERVICES PRO TALK → PRO TALK → BLOG → AM I ADDICTED? → INTERVENTION SERVICES

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Search topics...

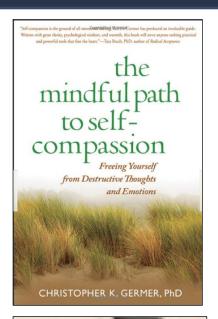
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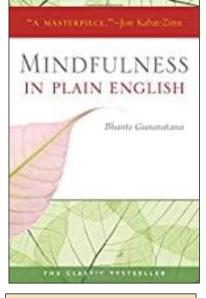
SEARCH

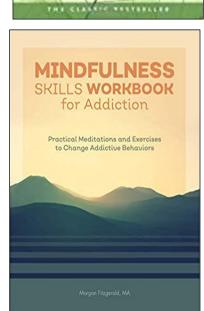
# Mindfulness for Gambling Addictions: Does it Work?

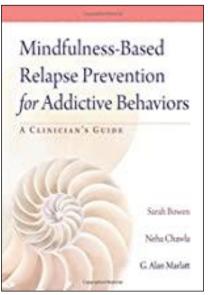
Posted November 5, 2014 in Addiction Treatment Methods, Behavioral Health by Rory C. Reid

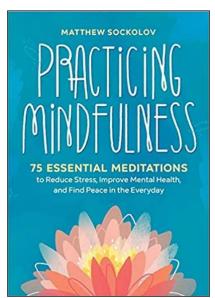
# Mindfulness Awareness Research Center

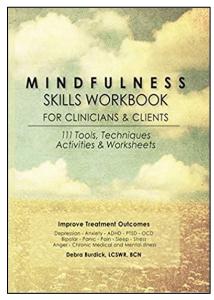


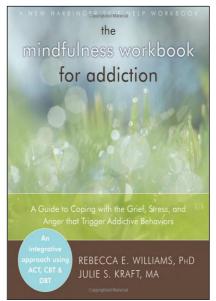


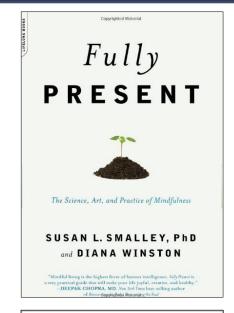


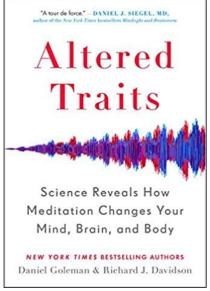


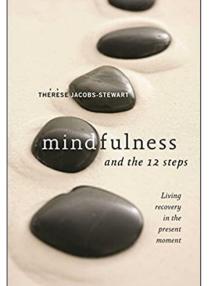












# Mindfulness Applications for Problem Gambling

Dr. Rory C. Reid, Ph.D., LCSW, ICGC-II

Asst Professor of Psychiatry, Research Psychologist Licensed Clinical Social Worker International Certified Gambling Counselor

Department of Psychiatry and Biobehavioral Sciences
Resnick Neuropsychiatric Hospital
University of California Los Angeles

Email: roryreid@ucla.edu



