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MINISTÈRE  
DES SOLIDARITÉS  
ET DE LA SANTÉ

# Promotion de la santé et prévention en alcoologie

Apports des recherches internationales

Dr. Arnaud **CARRE** – MCU-HDR – Psychologue – Univ. Savoie Mont Blanc / Univ. Grenoble Alpes – LIP/PC2S (EA4145)

# Identité, contexte, déclaration de conflits

## ► Psychologue

- ▶ Neuropsychologie et psychopathologie cognitive (Univ. Reims Champagne-Ardenne)
- ▶ Psychothérapies comportementales et cognitives (Univ. Claude Bernard Lyon I)
- ▶ Responsable de l'Unité Activité, Santé, Bien-Être et intervenant Troubles Emotionnels et Développementaux (Univ. Savoie Mont Blanc)

## ► Enseignant-chercheur

- ▶ Maître de conférences à l'Université Savoie Mont Blanc
  - ▶ Psychopathologie développementale et cognitive, Neurosciences affectives, Psychologie de la prévention
- ▶ Membre du Laboratoire Inter-universitaire de Psychologie, Personnalité, Cognition, Changement Social (LIP/PC2S, Université Grenoble Alpes, Université Savoie Mont Blanc)
  - ▶ Axe principal : Psychologie de la Prévention
  - ▶ Axes secondaires : Psychologie clinique et processus cognitifs, Cognition sociale

**Je n'ai pas de conflit d'intérêt en lien avec cette présentation**

# Sommaire de la présentation

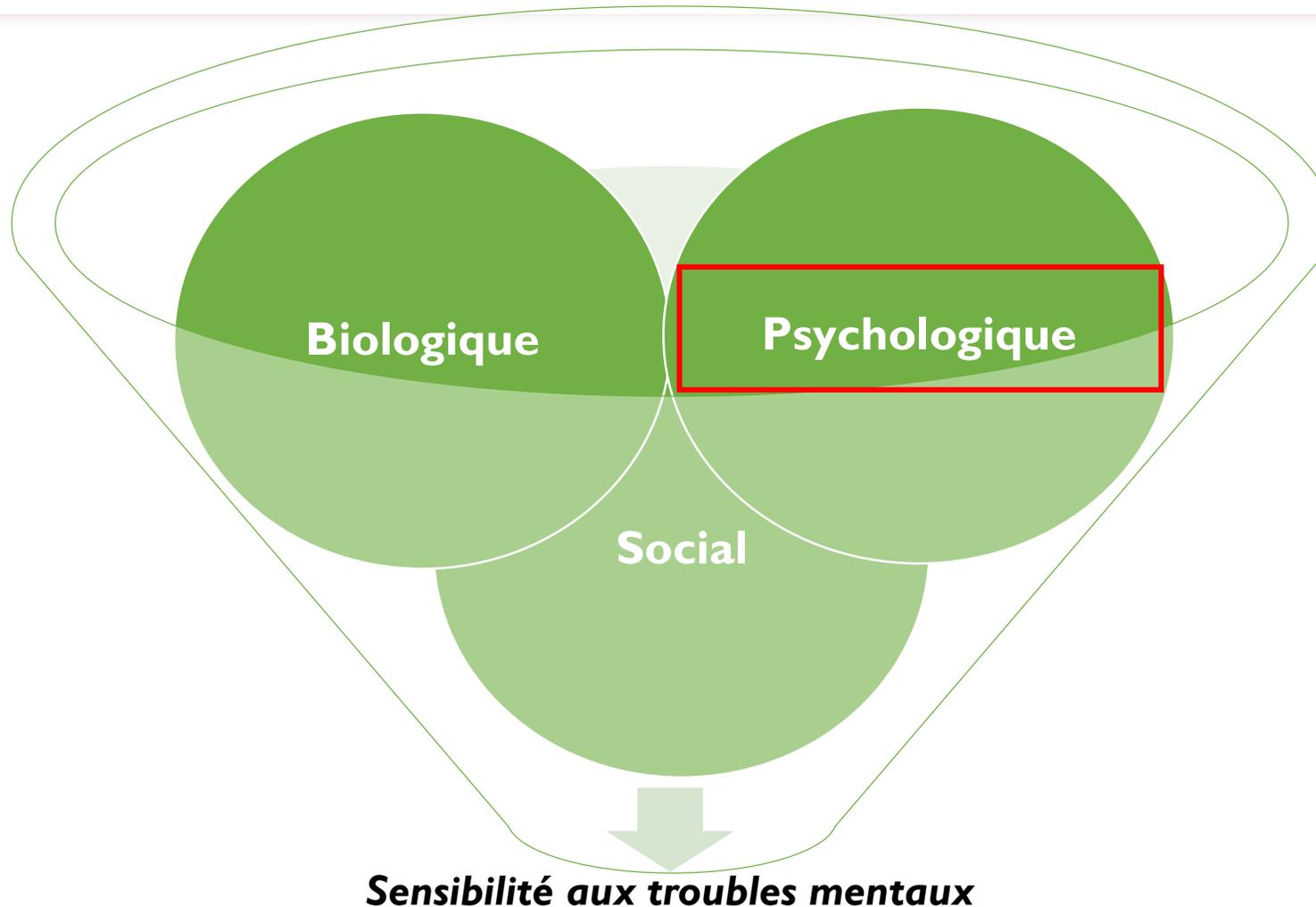
1 Est-il possible de considérer la prévention comme une science ?

2 Est-ce que la prévention fonctionne ?

- *Primaire*
- *Secondaire*
- *Tertiaire*

3 Quelles structurations pour (la psychologie de) la prévention ?

# La recherche d'une démarche clinique intégrative



Inspiré par Engel (1978)

## Addiction Is a Complex Brain Disease, Says Volkow

BY ERIC BOCK

Advances in medical imaging have revealed that addiction is a complex disease of the brain, said NIDA director Dr. Nora Volkow.

"By understanding how addiction affects different neuronal processes, we can gather insights that give us a better understanding of why the behaviors of people who are addicted are so disruptive to their lives and frequently that of others," said Volkow at the Clinical Center's Contemporary Clinical

Medicine: Great Teachers Grand Rounds Lecture held recently in Lipssett Amphitheater.

What nearly every abused drug that results in addiction—whether it be cocaine, alcohol, opioids or

nicotine—has in common is not only that they activate the reward circuit of the brain but also that their repeated use modifies the function of the prefrontal cortex. The prefrontal cortex, which is necessary to exert self-regulation and to assign saliency value to stimuli in the environment, doesn't develop fully until the mid-twenties. The prefrontal cortex, in coordination with the reward circuit, fuels behaviors "that are indispensable for survival." If a person is hungry, procuring food becomes a salient motivating behavior and eating is experienced as rewarding. Normally, people stop thinking about food once they've eaten and food loses its incentive value, which is assigned by the ventral component of the prefrontal cortex (orbitofrontal cortex).

Addiction, however, changes how the prefrontal cortex assigns incentive values to behaviors associated with drug-taking, fixating them. Volkow noted that people who are addicted cannot degrade the intense motivation to take the drug once they have consumed it, which results in compulsive drug-taking behavior. People with addictions often report they can no longer control their behavior, even when taking the drug is no longer pleasurable.

Most drug experimentation occurs before people reach their mid-twenties, Volkow said this reflects the normal development of the human brain. When people are younger, they are learning about the world and experimenting with different things. For many, this might include experimenting with drugs. During this time, adolescents' brains are

rapidly developing and their experiences, including drug-taking, influence some of these developmental changes.

Marijuana, for example, interferes with the endogenous cannabinoid system. Cannabinoids are neurotransmitters that play an important role in nervous system function and in brain development. The consequences of altering a developing brain's endogenous cannabinoid system during brain development aren't well-studied but are believed to contribute to future susceptibility to substance use disorders.

In the U.S., the majority of adolescents are exposed to alcohol, about half are exposed to marijuana and another 30 percent are exposed to vaping devices at least once in their lives, she reported.

During childhood and adolescence, the brain is "particularly sensitive to deprivation, social stressors and the effects of drugs," Volkow said. The environment people grow up in, if adverse, can make them more likely to become addicted to drugs as they transition to adulthood. If the environment is supportive, it can provide them with resilience and protect them against addiction. This explains why adverse environments during childhood and adolescence increase the odds of many diseases and other negative outcomes. Social deprivation, for instance, is one of the worst things that can happen to brain development in children.

"Maximizing that understanding provides us an opportunity to intervene with those children who have been brought up in adverse conditions and to tailor prevention interventions," Volkow said.

...  
*"If we want to prevent people from taking drugs, we have to ensure that there are social support systems that provide them with opportunities to grow and develop."*

-DR. NORA VOLKOW

...

She said researchers are trying to understand why some people exposed to drugs become addicted and others do not.

"There are people [whose genetic susceptibility is] so powerful [that it] can overpower resilient environments, making them liable to addiction," Volkow said. "There are environments that are so stressful and adverse that [they] can make people vulnerable to become addicted, even though they don't have the genetic [susceptibility]."

While all drugs activate the dopamine reward neurocircuitry, which in turn modulates the

prefrontal cortex, they also have very distinct effects on the brain. Understanding how drugs affect the brain gives researchers the opportunity to develop general as well as drug-specific treatments, Volkow said.

Right now, medications are the most effective treatments for addiction to opioids, nicotine and alcohol. Even though medicine-based treatments work, Volkow said their use is not widespread. The public and medical institutions still see addiction as a choice, rather than a disease.

"If we want to prevent people from taking drugs, we have to ensure that there are social support systems that provide them with opportunities to grow and develop," Volkow concluded. "If we want to get people to go and stay in treatment and to recover, we need to integrate them into meaningful social environments that respect and accept them. If we don't, they'll relapse." R



Dr. Nora Volkow  
PHOTO: LESLIE KOSSOFF



ON THE COVER: Repurposing and Robots. The National Center for Advancing Translational Research supports repurposing approved drugs for new therapeutic uses, a strategy that can accelerate translation from bench to bedside.

IMAGE: NCATS

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# La prévention : une science

THE LANCET  
Public Health

Comment

The fatal outcomes of failed prevention



*Most premature deaths can be attributed to a failure of prevention, especially in wealthy nations that have high-quality educational, social service, and health-care systems (...).*

# La prévention : une science

Communiquer



Informer



Eduquer



**Modifier  
(positivement)  
des  
comportements**



**Distinction  
à opérer entre  
l'intention et l'action**

*Effet positif*

*Absence d'effet spécifique*

*Effet délétère (contagion, réactance,...)*



**Biais de publications, pratiques de recherche douteuses (QRP),  
non-réplication ou difficultés de réplication,...**

# La prévention primaire

Received: 25 November 2017 | Revised: 16 January 2018 | Accepted: 21 January 2018  
DOI: 10.1111/cch.12558

REVIEW ARTICLE

WILEY

**Does integrated academic and health education prevent substance use? Systematic review and meta-analyses**

G. J. Melendez-Torres<sup>1</sup> | T. Tancred<sup>2</sup> | A. Fletcher<sup>3</sup> | J. Thomas<sup>4</sup> | R. Campbell<sup>5</sup> | C. Bonell<sup>2</sup>

**Implémentations en milieu scolaire de la prévention**

Méta-analyse sur 7 essais contrôlés aléatoires  
*Efficacité d'interventions d'éducation à la santé*

I<sup>re</sup> étude à examiner les tailles  
d'effets des interventions

Effets faibles (mais significatifs)  
en termes de réduction de l'usage de substances

# La prévention primaire

Drug and Alcohol REVIEW



Drug and Alcohol Review (April 2018), 37 (Suppl. 1), S435-S469  
DOI: 10.1111/dar.12694

REVIEW

**Universal prevention of alcohol and drug use: An overview of reviews in an Australian context**

LOUISE MEWTON , RACHEL VISONTAY, CATH CHAPMAN, NICOLA NEWTON, TIM SLADE, FRANCES KAY-LAMBKIN & MAREE TESSON

**Quel recul sur ce qui fonctionne en prévention universelle ?**

Revue des effets des interventions de prévention primaire dans différents secteurs (e.g. famille, scolaire, travail, médias)  
N=54 études



Effets positifs  
notamment des interventions à destination  
des familles, des écoles

Absence d'effet des interventions  
massives par les médias

# La prévention secondaire

Journal of Rural Mental Health  
2017, Vol. 41, No. 2, 162-173

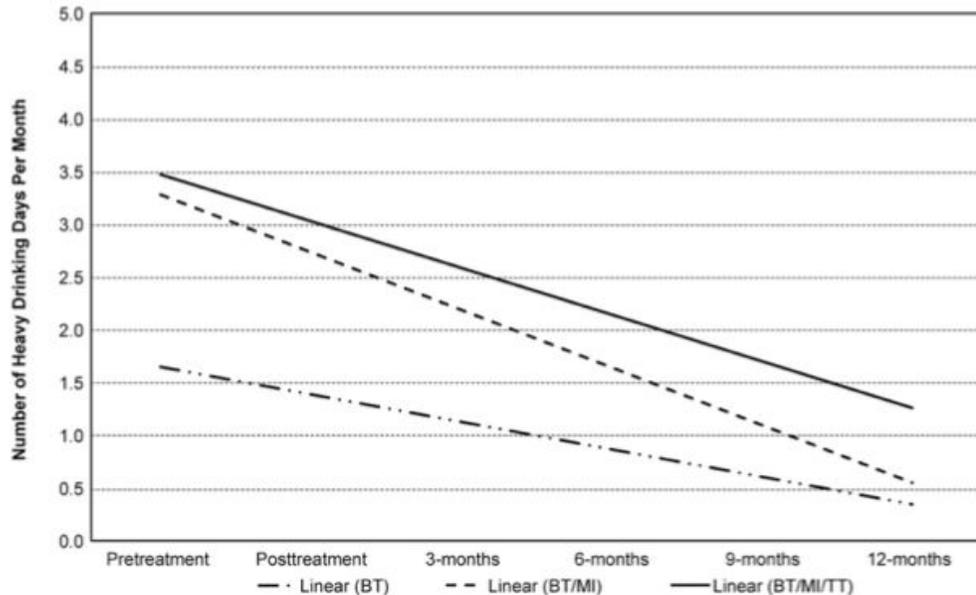
© 2017 American Psychological Association  
1935-942X/17/\$12.00 <http://dx.doi.org/10.1037/rmh0000073>

## Secondary Prevention of Alcohol Problems in Rural Areas Using a Bibliotherapy-Based Approach

Gerard J. Connors  
and Kimberly S. Walitzer  
University at Buffalo

Mark A. Prince  
Colorado State University

Audrey Kubiak  
University at Buffalo



## Réduction de la consommation chez des consommateurs non-cliniques

Intérêt de l'approche « *self-help* » :  
recours à la bibliothérapie (BT) durant 12 semaines

Bibliothérapie (BT)  
seule

BT  
+ 1 entretien  
motivationnel  
au téléphone

BT  
+ 1 entretien  
motivationnel  
au téléphone  
+ 6 sessions  
thérapeutiques au  
téléphone

Diminutions des consommations à risques & augmentation de l'abstinence (toutes conditions), observées jusqu'à 12 mois

# La prévention tertiaire



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ISSN: 0022-006X

Journal of Consulting and Clinical Psychology

2019, Vol. 87, No. 12, 1093–1105  
<http://dx.doi.org/10.1037/ccp0000447>

## A Meta-Analysis of Cognitive-Behavioral Therapy for Alcohol or Other Drug Use Disorders: Treatment Efficacy by Contrast Condition

Molly Magill  
Brown University

Brian Kiluk  
Yale School of Medicine

J. Scott Tonigan  
University of New Mexico

Lara Ray  
University of California, Los Angeles

Ariel Hoadley and Michael Bernstein  
Brown University

Kathleen Carroll  
Yale School of Medicine

## Prévenir la rechute par les Thérapies Comportementales et Cognitives (TCC)

Méta-analyse de 30 essais contrôlés aléatoires  
*Maintien de l'effet sur la quantité et fréquence de consommation*

Thérapies minimales

*Psychoéducation brève*

Thérapies non spécifiques

*Thérapie de soutien*

Thérapies spécifiques

*Thérapies motivationnelles*

Effet modéré et durable sur le fonctionnement et l'abstinence à LT.

# La prévention : une science

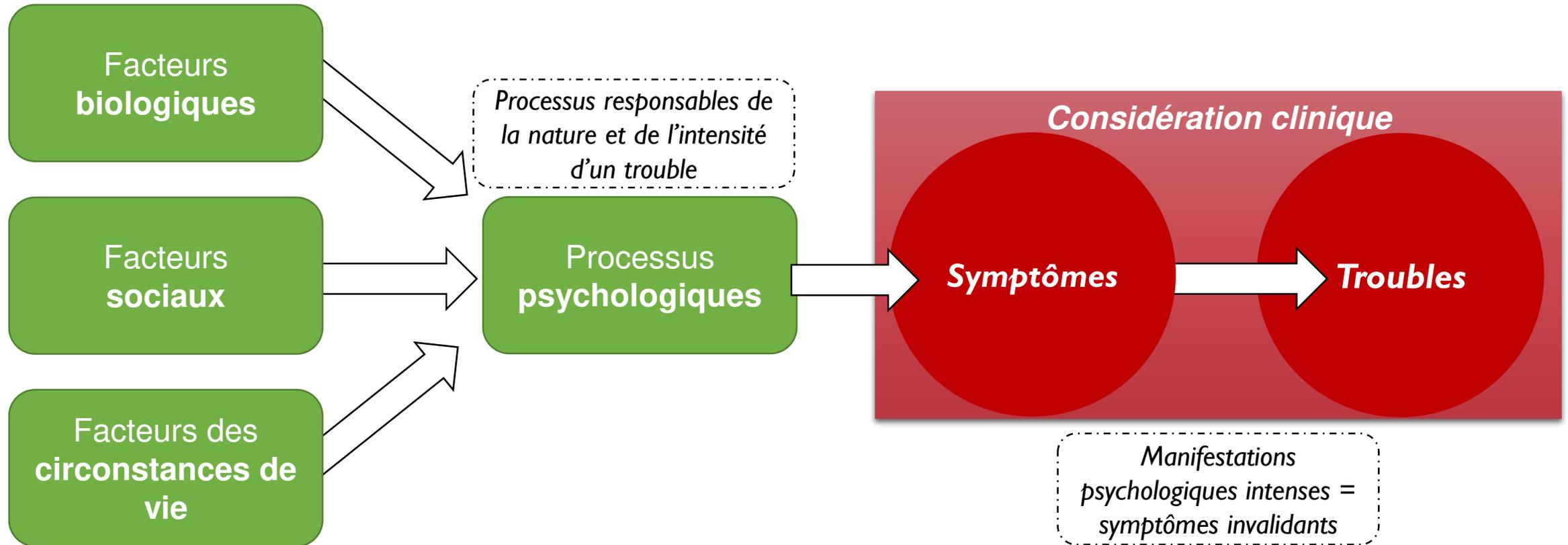
**Bonnes nouvelles :**

***Une volonté d'évaluation,  
Une recherche de la preuve,  
Une efficacité qui est parfois attestée,  
Un adossement des actions publiques***

**Un point d'amélioration à traiter :**

***Quel est le principe actif de la prévention ?  
Quels processus sont en œuvre ?  
Quelle spécificité ?***

# Quelle démarche générale de promotion et de prévention ?



# Quel paradigme de prévention en santé mentale ?

THE LANCET  
Psychiatry

Review

## Preventive strategies for mental health

Celso Arango, Covadonga M Díaz-Caneja, Patrick D McGorry, Judith Rapoport, Iris E Sommer, Jacob A Vorstman, David McDaid, Oscar Marin, Elena Serrano-Drozdzowskyj, Robert Freedman, William Carpenter



Available treatment methods have shown little effect on the burden associated with mental health disorders. We review promising universal, selective, and indicated preventive mental health strategies that might reduce the incidence of mental health disorders, or shift expected trajectories to less debilitating outcomes. Some of these interventions also seem to be cost-effective. In the transition to mental illness, the cumulative lifetime multiple small effect size risk factors progressively increases vulnerability to mental health disorders. This might inform different levels and stages of tailored interventions to lessen risk, or increase protective factors, especially during sensitive developmental periods. Gaps between knowledge, policy, and practice need to be bridged. Future steps should emphasise mental health promotion, and improvement of early detection and interventions in clinical settings, schools, and the community, with essential support from society and policy makers.

Lancet Psychiatry 2018  
Published Online  
May 14, 2018

Interventions à visée de...

**promotion de la santé mentale**

**prévention primaire universelle**

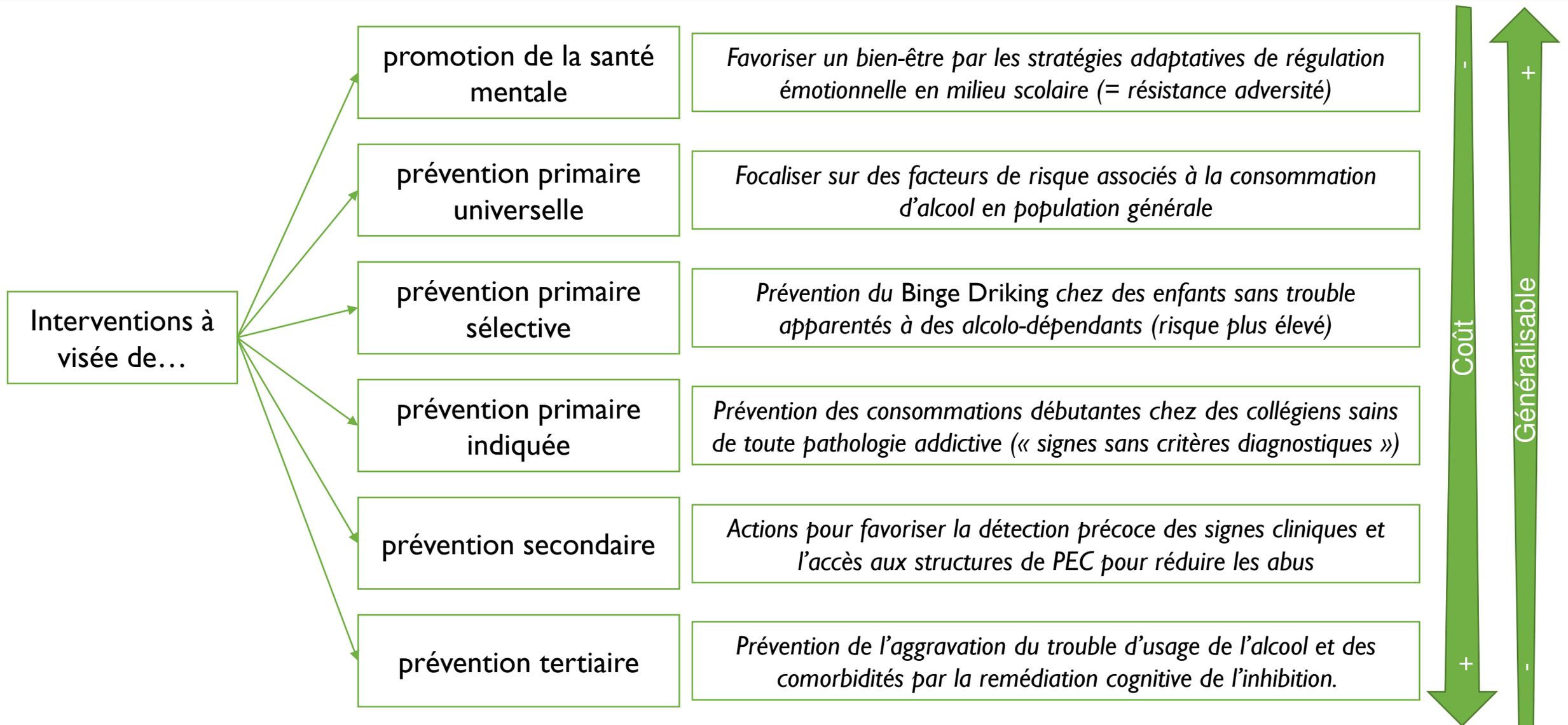
**prévention primaire sélective**

**prévention primaire indiquée**

**prévention secondaire**

**prévention tertiaire**

# Vers 6 niveaux d'interventions préventives ?



# Un cadre théorico-méthodologique ?

CLINICAL PSYCHOLOGY  
SCIENCE AND PRACTICE

## Conducting Psychopathology Prevention Research in the RDoC Era

Alyson K. Zalta, Departments of Behavioral Sciences and Psychiatry, Rush University Medical Center

Stewart A. Shankman, Department of Psychology, University of Illinois at Chicago

CLINICAL PSYCHOLOGY: SCIENCE AND PRACTICE • V23 N1, MARCH 2016



The **Research Domain Criteria (RDoC)** initiative promoted by the National Institute of Mental Health emphasizes a **dimensional approach** to psychopathology that is agnostic to *DSM* diagnosis. The RDoC project offers exciting possibilities for advancing research aimed at preventing psychopathology. However, prevention has historically been defined using diagnostic status, requiring the field to redefine what constitutes prevention using an RDoC approach. This article outlines new criteria for prevention in the RDoC context and provides guidance for implementing these criteria. We also **describe the role of prevention-mechanism trials that examine whether preventive interventions change proximal etiological mechanisms known to be associated with psychopathology.** We hope that these modified criteria and recommendations will stimulate new possibilities for prevention research that will advance the field.

**Key words:** mental health, mental illness, prevention, Research Domain Criteria, risk factor. [*Clin Psychol Sci Prac* 23: 94–104, 2016]

# Un cadre théorico-méthodologique ?

CLINICAL PSYCHOLOGY  
SCIENCE AND PRACTICE

Conducting Psychopathology Prevention Research in the

The **Research Domain Criteria (RDoC)** initiative promoted by the National Institute of Mental Health emphasizes a **dimensional approach** to psychopathology that is agnostic to *DSM* diagnosis. The RDoC project

**Table 2 Research domain criteria, October 2012 (constructs are listed within each domain)**

Negative valence domain	Positive valence systems	Cognitive systems	Systems for social processes	Arousal/modulatory systems
Acute threat ('fear')	Approach motivation	Attention	Affiliation and attachment	Arousal
Potential threat ('anxiety')	Initial responsiveness to reward	Perception	Social communication	Biological rhythms
Sustained threat	Sustained responsiveness to reward	Working memory	Perception and understanding of self	Sleep-wake
Loss	Reward learning	Declarative memory	Perception and understanding of others	
Frustrative nonreward	Habit	Language behavior		
		Cognitive (effortful) control		

→ **Evaluations / mesures croisées à différents niveaux : du moléculaire au déclaratif**

Cuthbert & Kozak (2013); Insel et al. (2010); Zalta & Shankman (2016)

Promotion de la santé et prévention en alcoologie

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***Merci pour votre attention***