

STRESS ET RÉSILIENCE CHEZ LA COMMUNAUTÉ D'HOMME GAIE, BISEXUELLE, ET TRANSGENRE

ROBERT-PAUL JUSTER, PHD

ROBERT-PAUL.JUSTER@UMONTREAL.CA

Département de psychiatrie
et d'addictologie
Faculté de médecine

Université 
de Montréal



**CENTRE
DE RECHERCHE
DE L'IUSMM**

CENTRE AFFILIÉ À
L'UNIVERSITÉ DE MONTRÉAL



CESAR

CENTRE D'ÉTUDES SUR LE SEXE*GENRE, L'ALLOSTASIE, ET LA RÉSILIENCE
CENTER ON SEX*GENDER, ALLOSTASIS, AND RESILIENCE

8^{IÈME} COLLOQUE RÉGIONAL MONTRÉALAIS EN SANTÉ ET BIEN-ÊTRE DES HOMMES
CENTRE ST. PIERRE – 16/11/2023



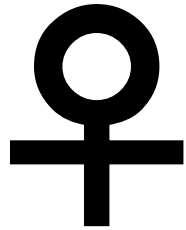
Regroupement des Organismes
pour Hommes de l'Île de Montréal

Objectifs d'apprentissage

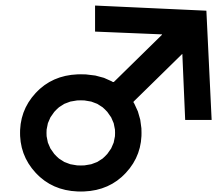
- 1) Comprendre les bases du stress en lien avec l'orientation sexuelle et l'identité de genre
- 2) Définir la charge allostatique comme «l'usure» laissée par le stress chronique
- 3) Thème spécial sur la biologie du stress et résilience au sein de la communauté LGBTQ+



Différences pathogéniques hommes/femmes



- ✓ Troubles de l'humeur
- ✓ Stress post-traumatique
- ✓ Troubles bipolaire II
- ✓ Troubles somatiques
- ✓ Troubles de sommeil
- ✓ Trouble de la personnalité borderline
- ✓ Maladies auto-immunitaires



- ✓ Toxicomanie
- ✓ Schizophrénie
- ✓ Troubles du spectre de l'autisme
- ✓ Troubles antisociaux
- ✓ Trouble d'hyperactivité avec déficit de l'attention
- ✓ Syndrome de Tourette
- ✓ Maladie de Parkinson
- ✓ Mortalité prématurée

*

GENRE

Rôles, comportements, expressions et identités des filles, des femmes, des garçons, des hommes et des personnes de diverses identités de genre



SEXE

Attributs biologiques retrouvés chez les humains et les animaux, par exemple les caractéristiques physiques, les chromosomes, l'expression génique, les hormones et l'anatomie



Avez-vous envisagé les possibilités?

En savoir plus: www.irsc-cih.gc.ca/faconnerlascience.html



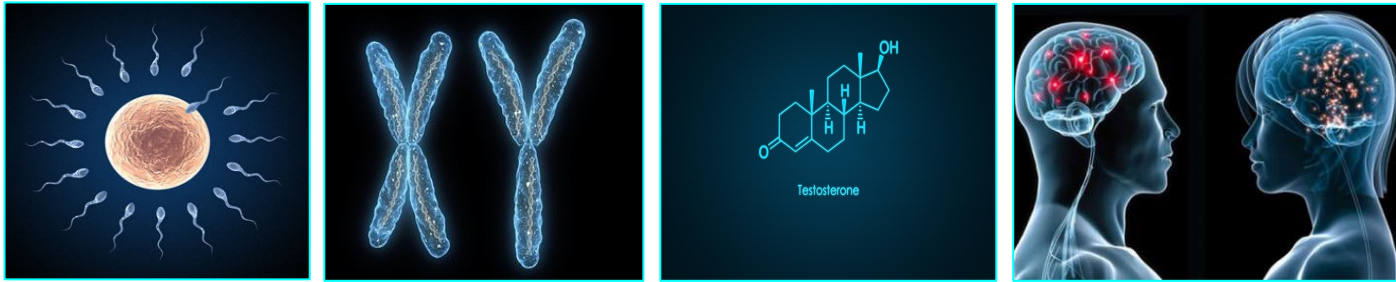
Institute de recherche
en santé du Canada

Canadian Institute
of Health Research

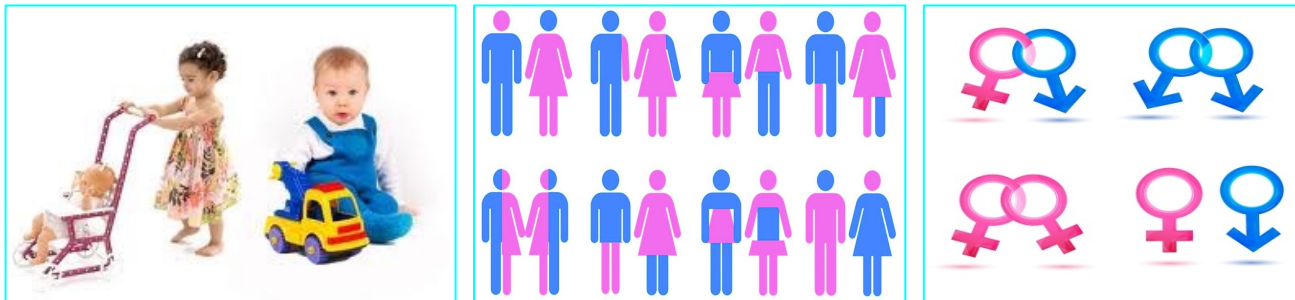
Canada



CHAQUE CELLULE EST SEXUÉE,



CHAQUE PERSONNE A SON GENRE,



ET CHAQUE ORGANISME EST STRESSÉ



Qu'est-ce que le stress ?



and for the
for the
stress
on a new
of



***Définition du stress (Bruce McEwen)**

Le stress est une menace (réelle ou interprétée) à l'intégrité physiologique ou psychologique d'un individu qui entraîne des réactions biologiques et comportementales adaptatives



*Mesurer le « stress »

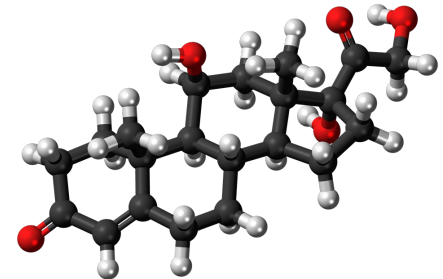
Environnemental: *stresseur* objectif



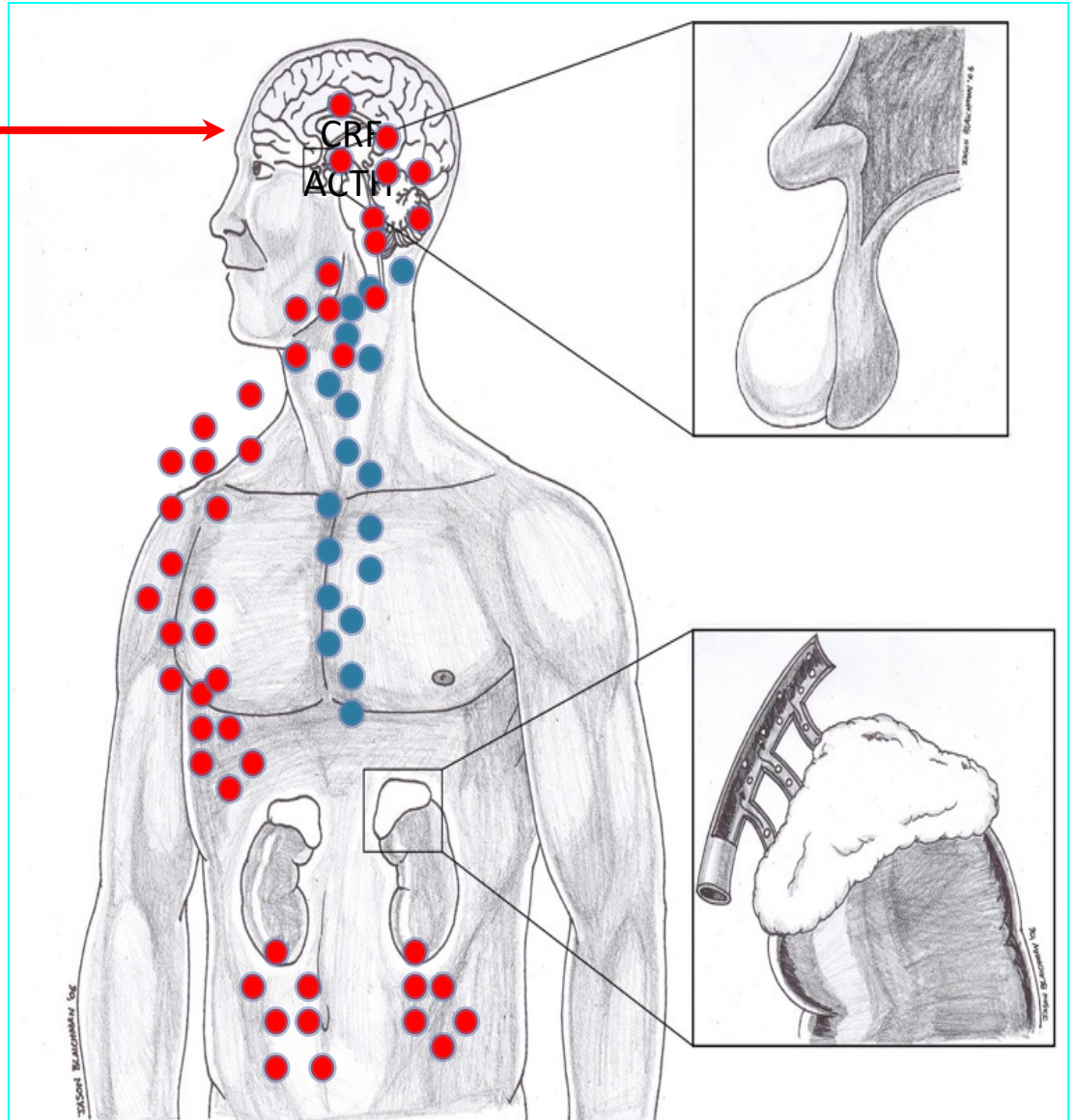
Psychologique: *détresse* subjective

1 2 3 4 5

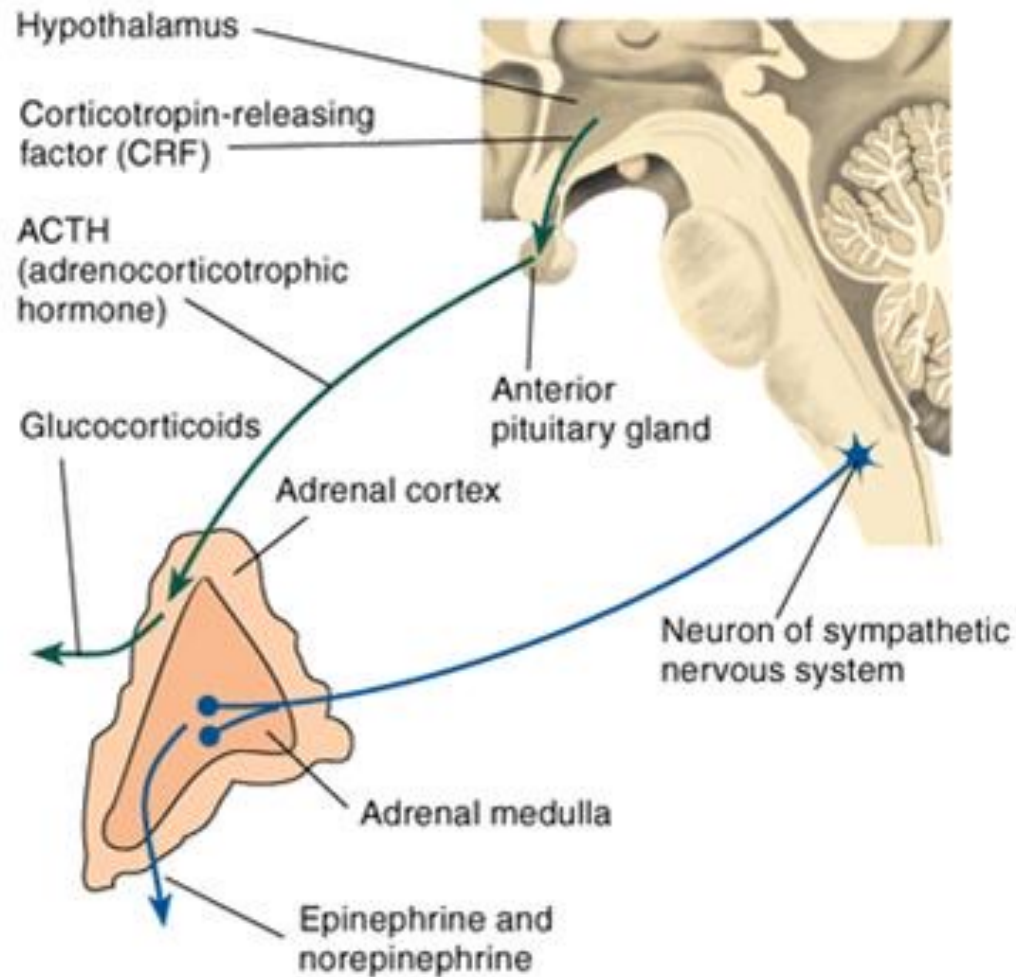
Biologique: *biomarqueur* objectif



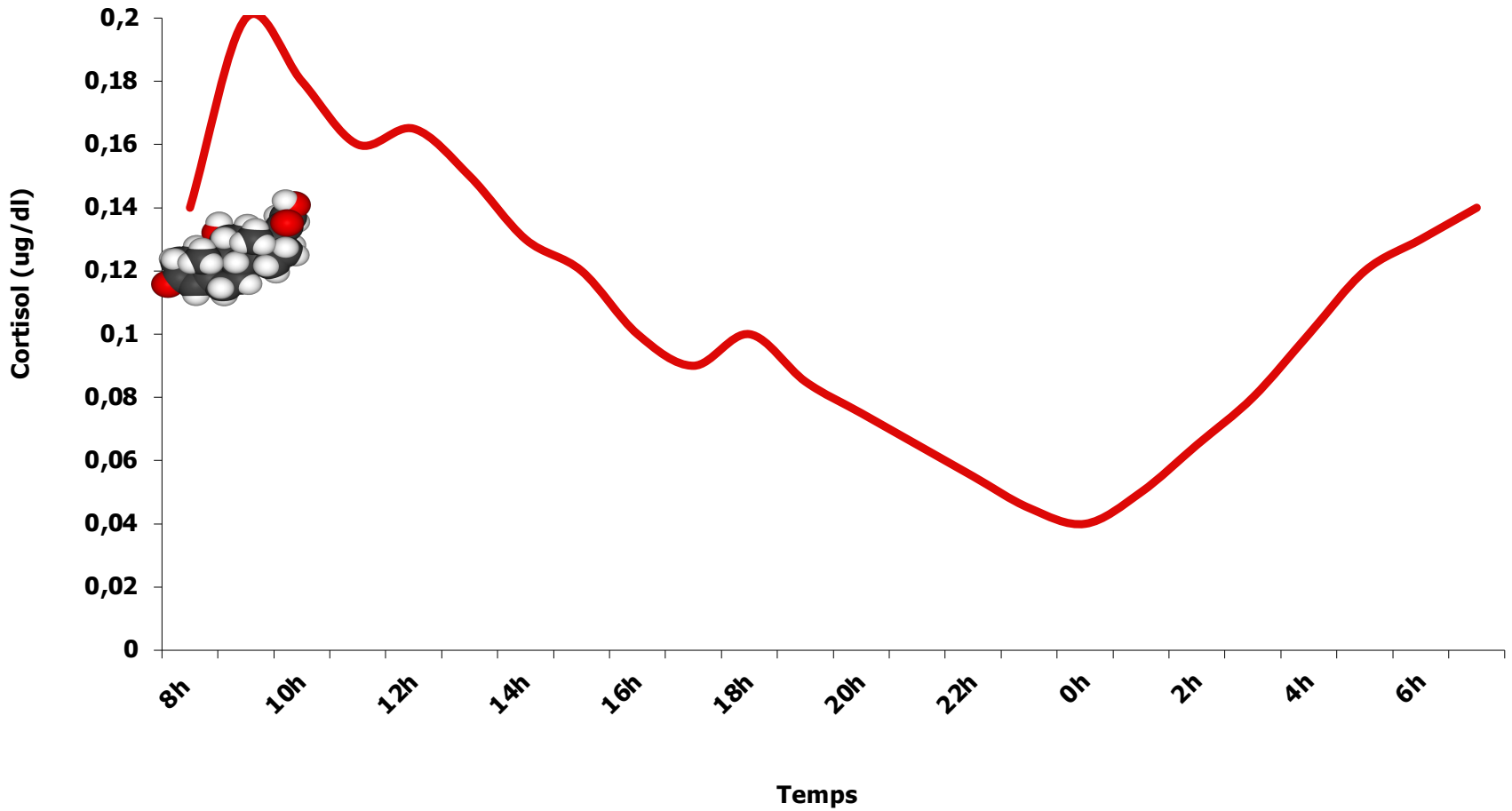
Biologie du stress



► **Control of the Secretion of Glucocorticoids by the Adrenal Cortex and of Catecholamines by the Adrenal Medulla**

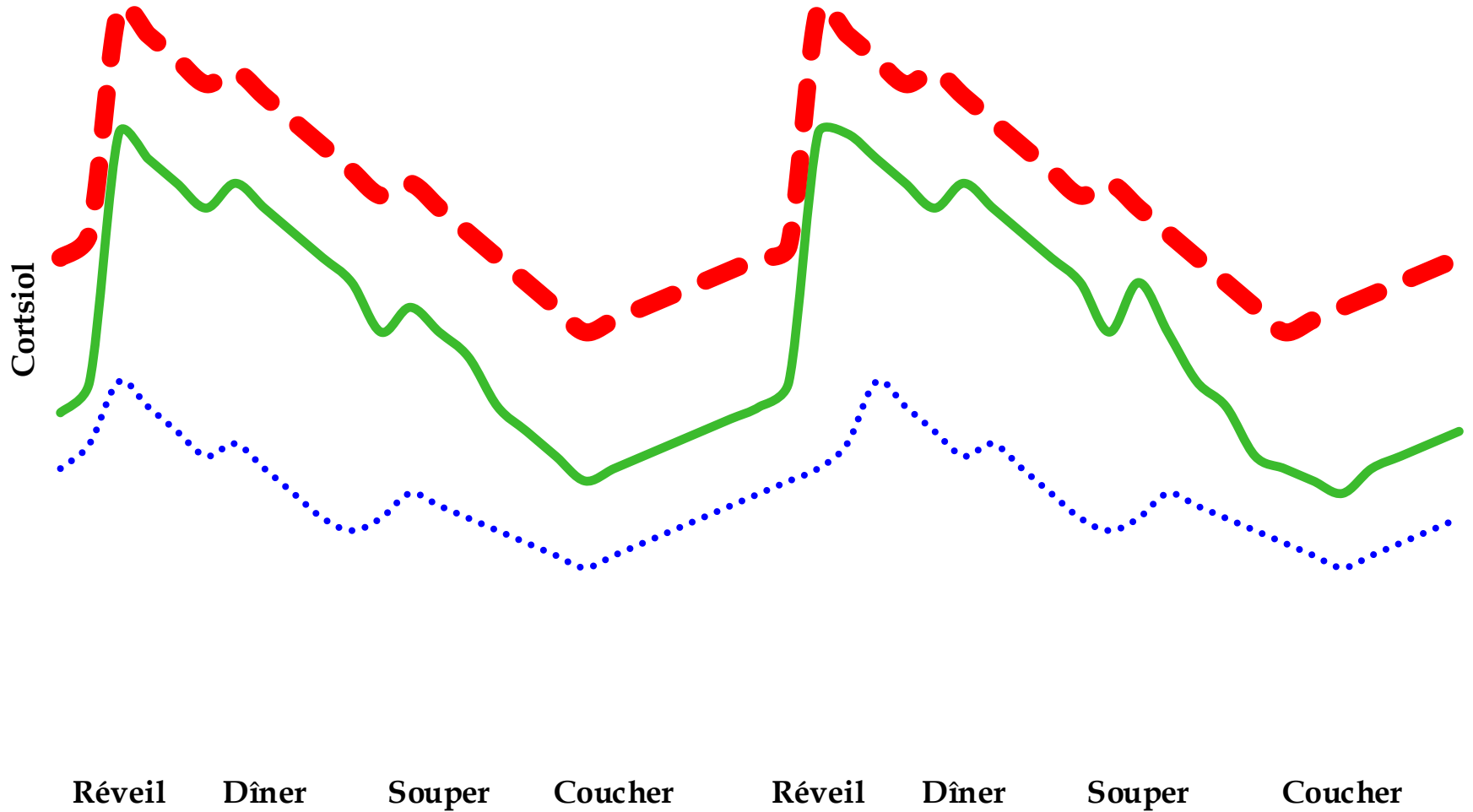


Cortisol diurne



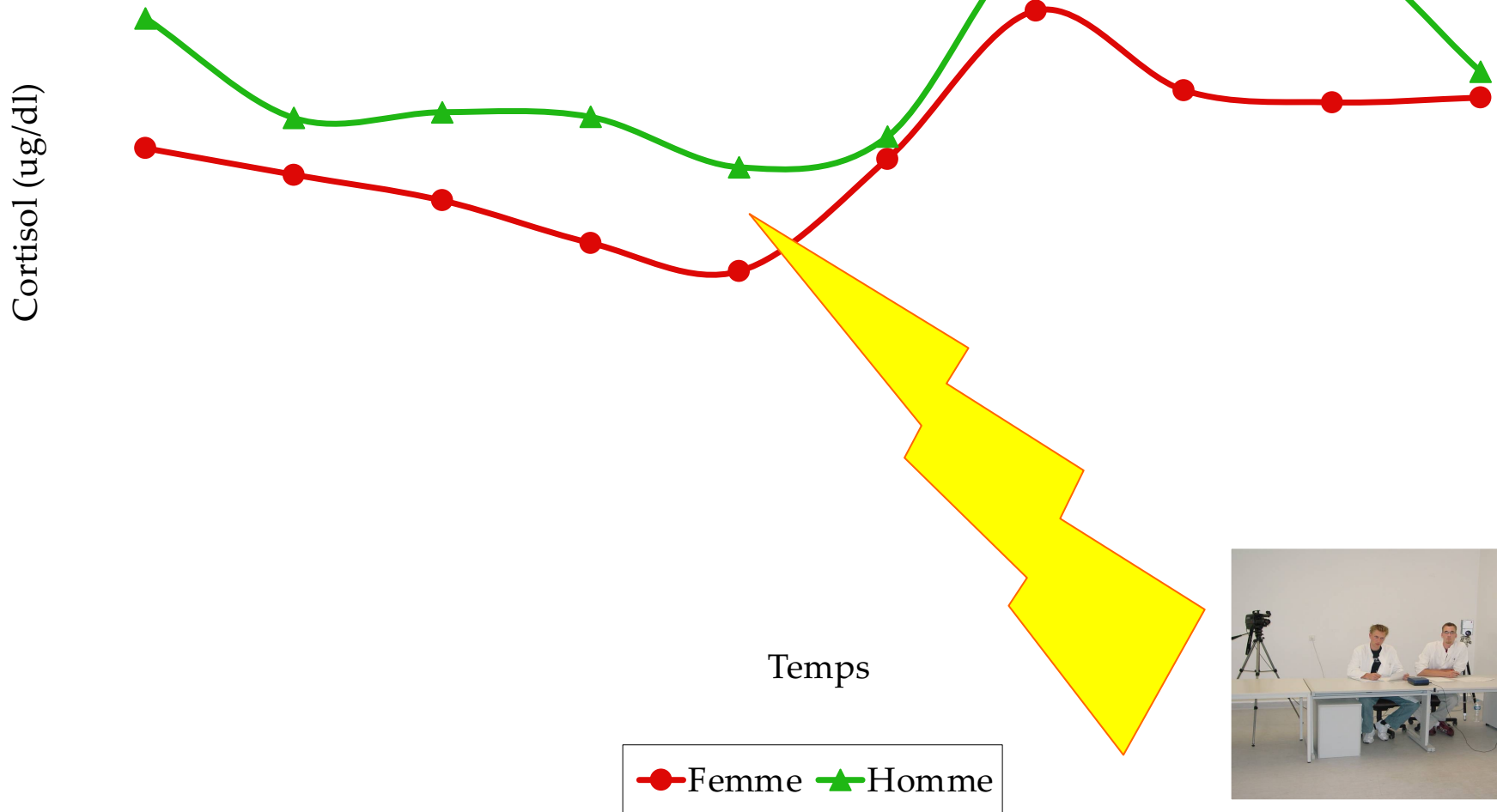
Cortisol diurne et les maladies liées au stress

— Normale - - - Dépression ···· Épuisement professionnel



Données fictives basées sur une recension systématique des écrits (Chida & Steptoe, 2009)

Cortisol réactif

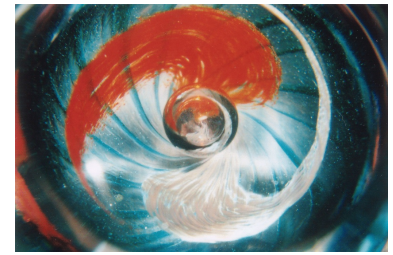


Homéostasie

- Le terme *homéostasie* a été introduit par Walter Cannon (1932) afin de décrire la régulation biologique du milieu interne à l'intérieur d'un écart normatif
- Feedback négatif

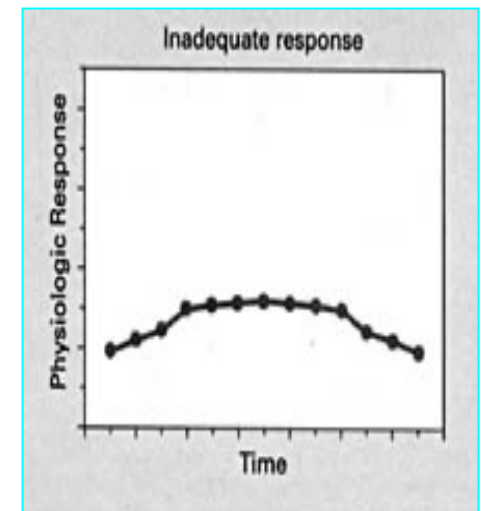
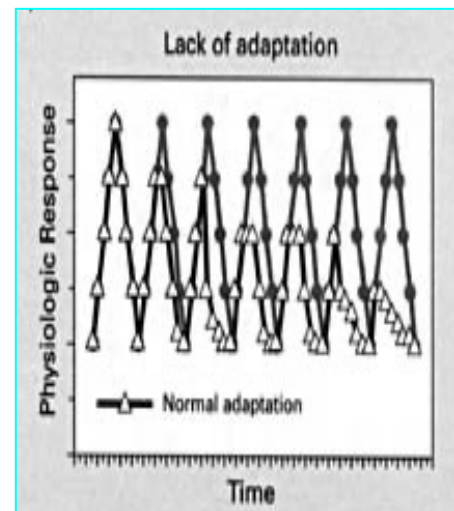
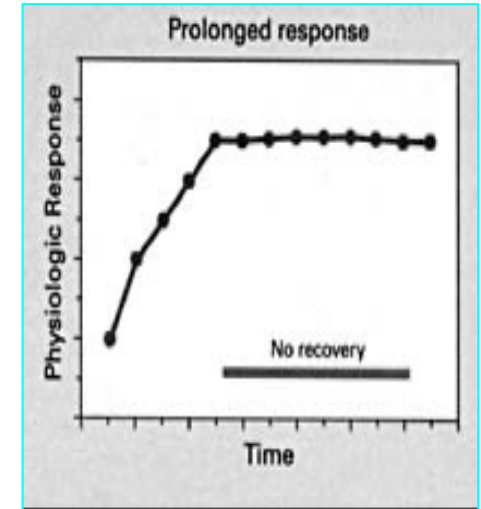
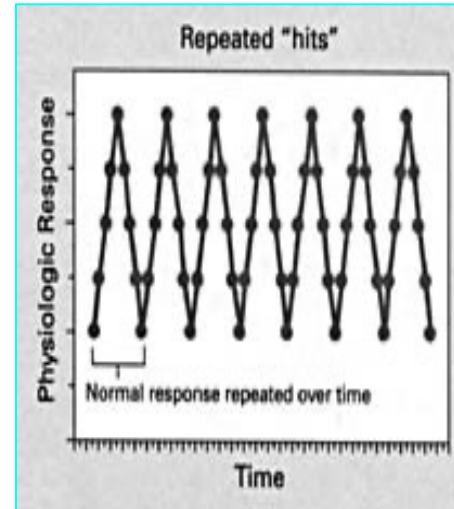
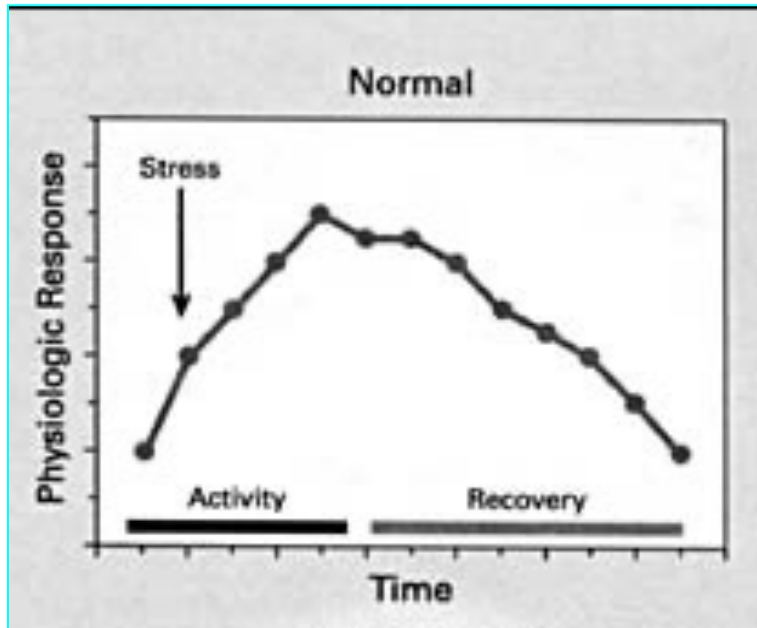


Allostasie



- Allostasie: « *Pour maintenir la stabilité, un organisme doit varier tous les paramètres de son milieu interne et les accorder proprement aux demandes de l'environnement* » (Sterling & Eyer, 1988)
- L'allostasie est de la stabilité dynamique
- Les réponses allostatiques, comme la réponse de stress, sont adaptatives si elles ne sont pas surchargées par des activations chroniques

États allostatique et états physiologiques anormaux

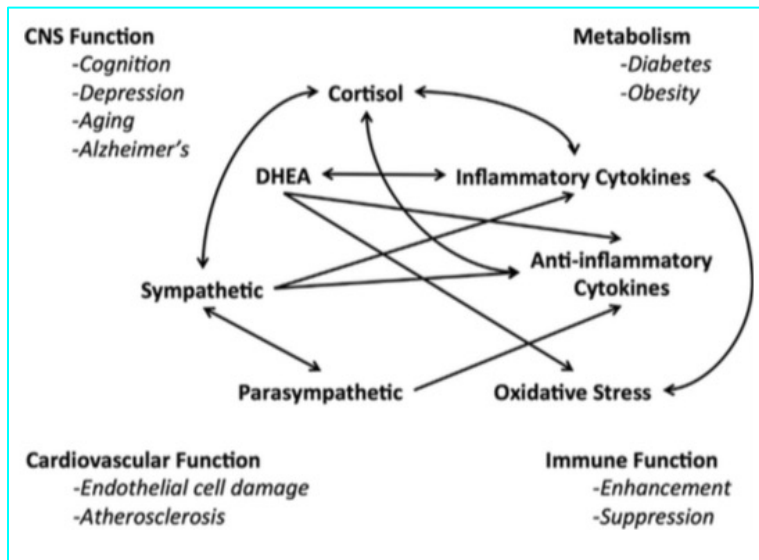


Koob & LeMoal (2001) *Neuropsychopharmacology*

McEwen (1998) *Annals of the New York Academy of Sciences*

Charge allostatique (CA)

- La charge allostatique concerne le déséquilibre des systèmes qui servent à l'adaptation



McEwen & Stellar (1993) *Archives of Internal Medicine*; McEwen (1998) *New England Journal of Medicine*



Index pour mesurer la charge allostatique

MacArthur Studies of Successful Aging

- (1) Cortisol (≥ 25.7 mg)
- (2) Noradrénaline (≥ 48 mg)
- (3) Adrénaline (≥ 5 mg)
- (4) DHEA-S (≤ 2.5 $\mu\text{mol/L}$)
- (5) Pression artérielle systolique (≥ 148 mmHg)
- (6) Pression artérielle diastolique (≥ 83 mmHg)
- (7) Ratio taille-hanches (≥ 0.94)
- (8) Ratio cholestérol total-HDL (≥ 5.9)
- (9) Cholestérol HDL (≤ 1.45 mmol/L)
- (10) Hémoglobine glycosylée ($\geq 7.1\%$)

ORIGINAL INVESTIGATION

Price of Adaptation—Allostatic Load and Its Health Consequences

MacArthur Studies of Successful Aging

Teresa E. Seeman, PhD; Burton H. Singer, PhD; John W. Rowe, MD; Ralph I. Horwitz, MD; Bruce S. McEwen, PhD

Backgrounds: Exponential growth in the population of older adults presents clinicians with special concerns about factors affecting risks for declines in cognitive and physical functioning.

Objectives: To examine the hypothesis that risks for such declines and for disease outcomes, such as cardiovascular disease, are related to differences in allostatic load, the cumulative physiologic toll exacted on the body over time by efforts to adapt to life experiences. To present an operational definition of allostatic load, along with preliminary evidence of its predictive validity in relation to salient outcomes of aging.

Methods: Data from a longitudinal, community-based study of successful aging were used to develop a measure of allostatic load based on 10 parameters reflecting levels of physiologic activity across a range of important regulatory systems. Allostatic load is the sum of the number of parameters for which the subject was rated in the highest-risk quartile.

Results: Higher allostatic load scores were associated with poorer cognitive and physical functioning and predicted larger decrements in cognitive and physical functioning as well as being associated with an increased risk for the incidence of cardiovascular disease, independent of sociodemographic and health status risk factors.

Conclusions: Findings are consistent with the conceptualization of allostatic load as an index of wear and tear on the body, with elevations in allostatic load predicting an increased risk for a decline in cognitive and physical functioning as well as cardiovascular disease in a cohort of older men and women. From a clinical perspective, the concept of allostatic load may provide the basis for a more comprehensive assessment of major risks in the aging process.

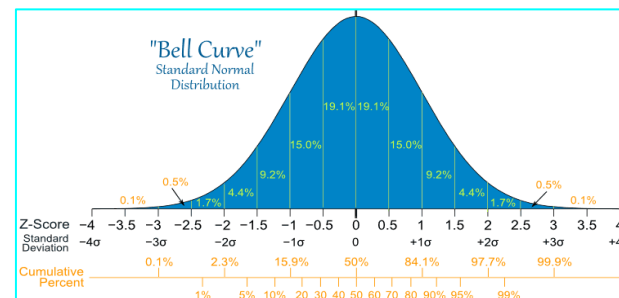
Arch Intern Med. 1997;157:2259-2268

WITH THE ongoing and exponential growth of the population of older adults, clinicians are faced with important questions regarding risk profiles not only for traditional disease outcomes, such as cardiovascular disease (CVD), but also for declines in cognitive and physical functioning more generally. Understanding the factors that contribute to differential risks for declines in these critical domains of functioning are important to patients and clinicians alike, since such declines are associated with increased health care needs and a decline in the quality of life. One factor that has been hypothesized to influence risks for these various age-related outcomes is the extent of wear and tear exacted on the body over time from repeated fluctuations of various physiologic systems (eg, in response to perceived stressors) and/or more long-term exposures to elevated levels of physiologic activity.

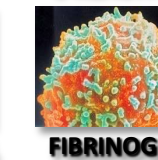
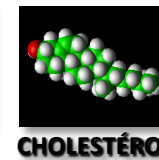
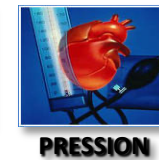
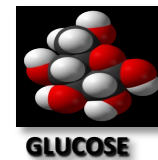
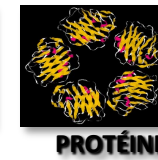
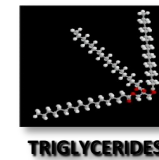
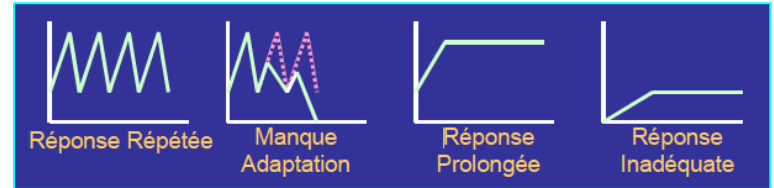
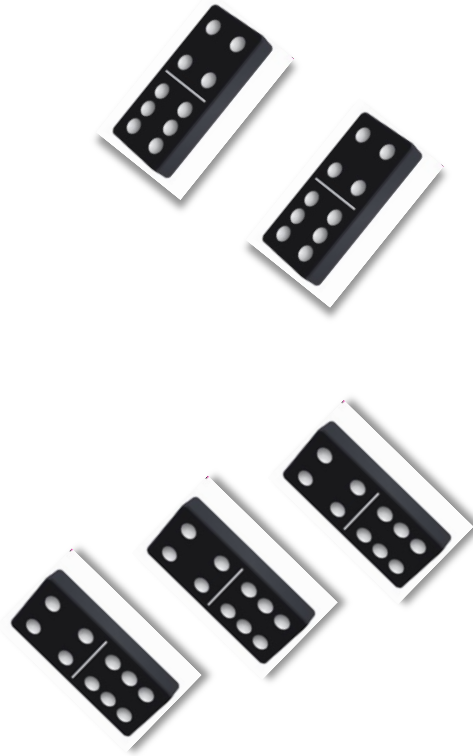
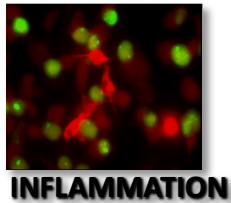
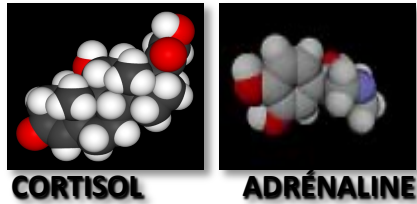
The idea that cumulative levels of stress may have deleterious effects on health and longevity has long intrigued investigators, dating from early work on homeostasis^{1,2} and continuing with the work of Selye³ and others⁴ on the pathologic consequences of excessive physiologic activation. However, much of the early and recent work has focused on the effects of stress on specific, individual biologic parameters and the associated health consequences.⁵⁻¹⁴ Recently, however, McEwen and Stellar¹⁵ introduced the term *allostatic load* to refer to a more cumulative, multi-system view of the physiologic toll that may be exacted on the body through attempts at adaptation, defining allostatic load as the strain on the body produced by repeated ups and downs of physiologic response, as well as by the elevated activity of physiologic systems under challenge, and changes in metabolism . . . that can predispose the organism to disease.^{15(p206)}

ARCH INTERN MED VOL 157, OCT 27, 1997
Downloaded from www.archinternmed.com at McGill University Libraries, on June 19, 2009

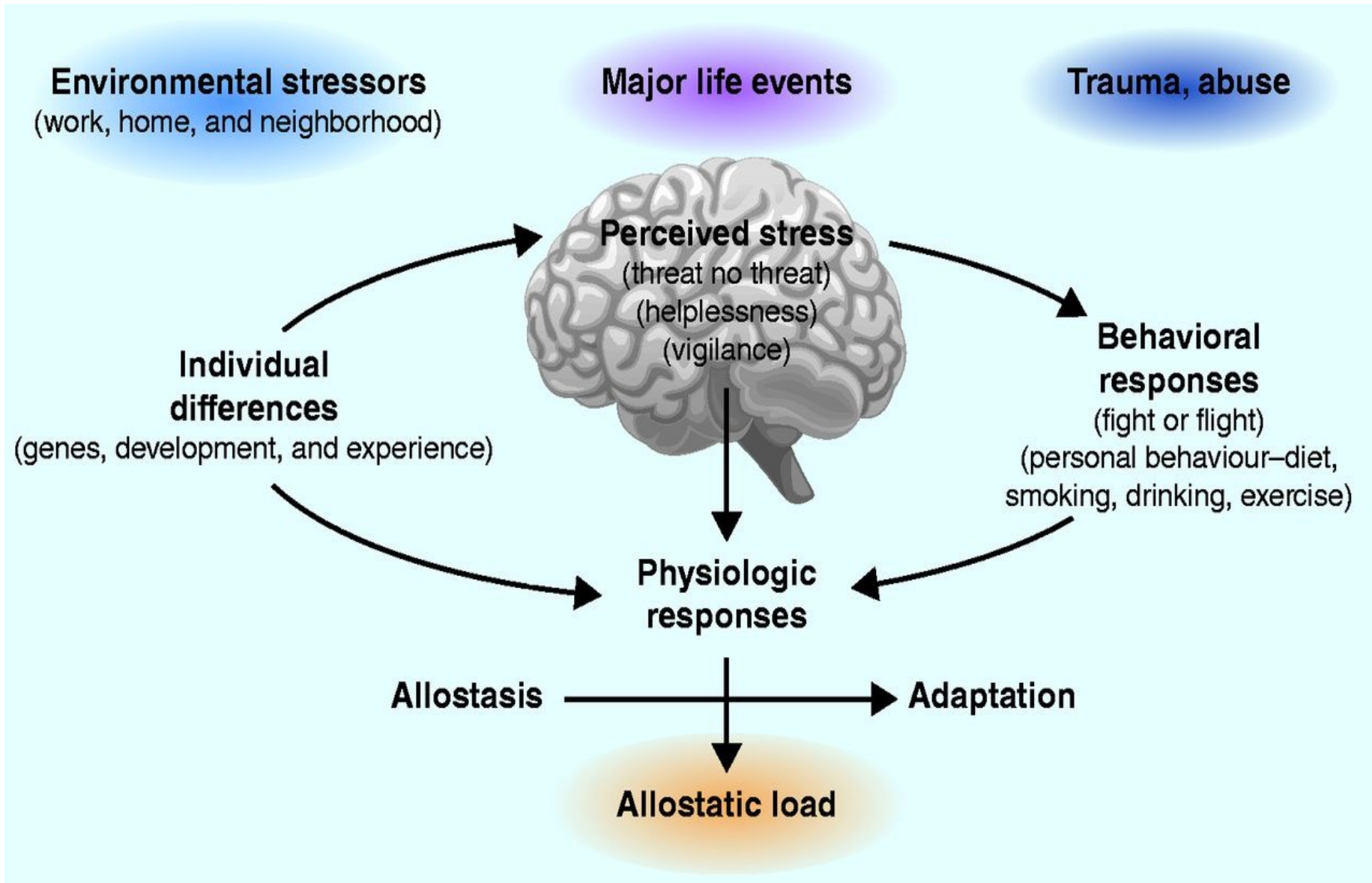
Seeman et al. (1997) *Archives of Internal Medicine*

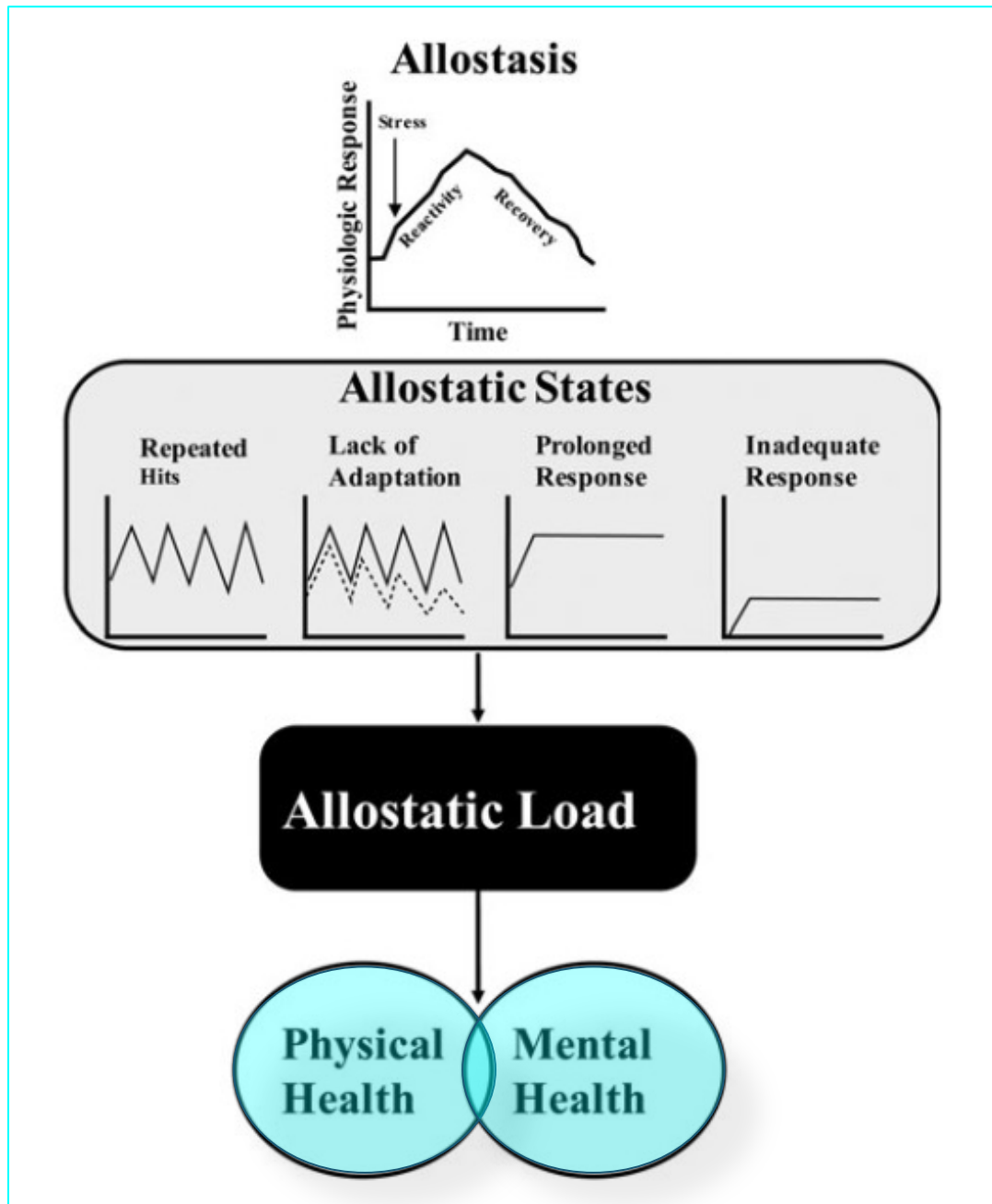


L'effet « Domino » du stress chronique



Allostase adaptée & charge allostatique inadaptée

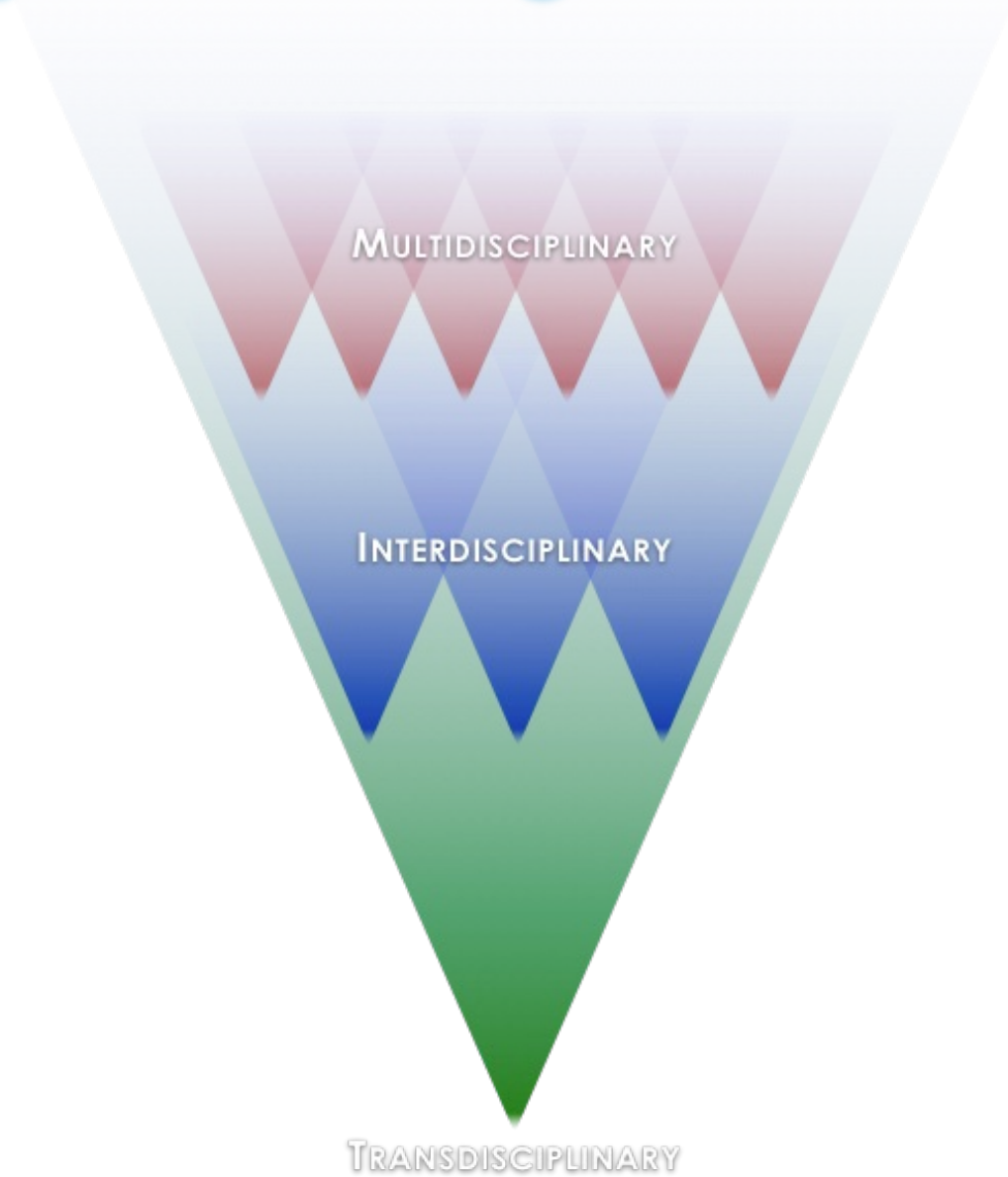




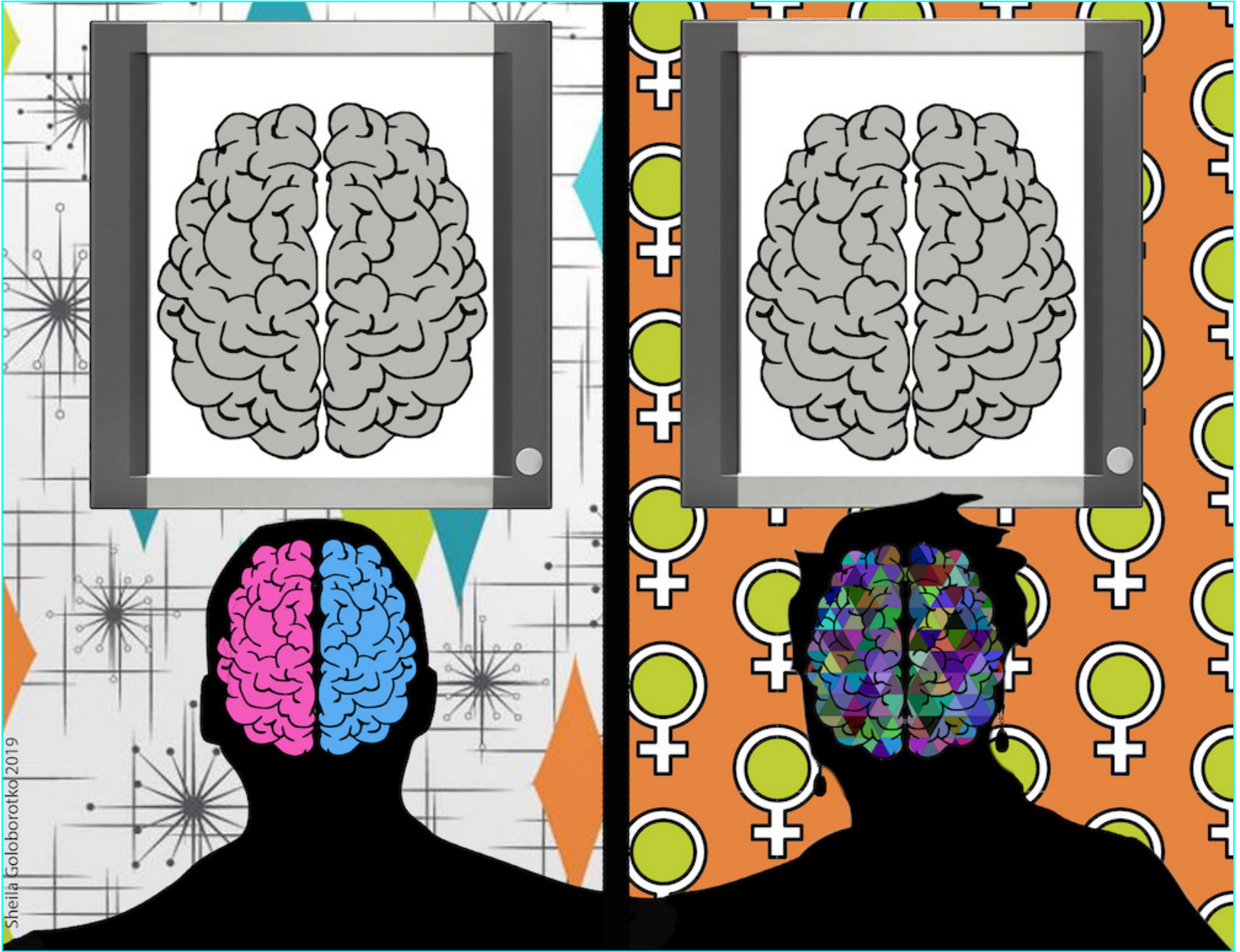
Causes et conséquences de la charge allostatique



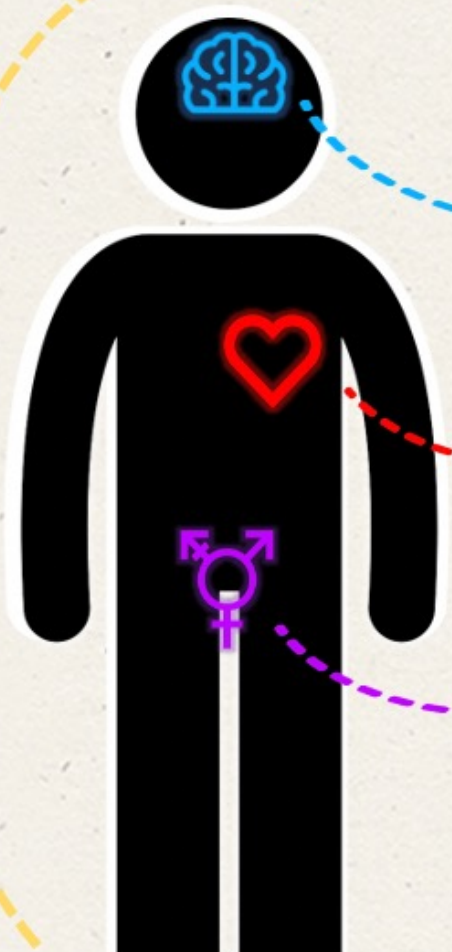
Transdisciplinarité et triangulation méthodologique



TRANSDISCIPLINARY



Les composants de l'identité



L'expression de genre

- Féminine
- Masculine



L'identité de genre

- Femme
- Homme
- Fluide



L'orientation sexuelle

- Femmes et/ou personnes féminines
- Hommes et/ou personnes masculines

L'orientation romantique

- Femmes et/ou personnes féminines
- Hommes et/ou personnes masculines



Le sexe assigné à la naissance

- Femme
- Intersexe
- Homme

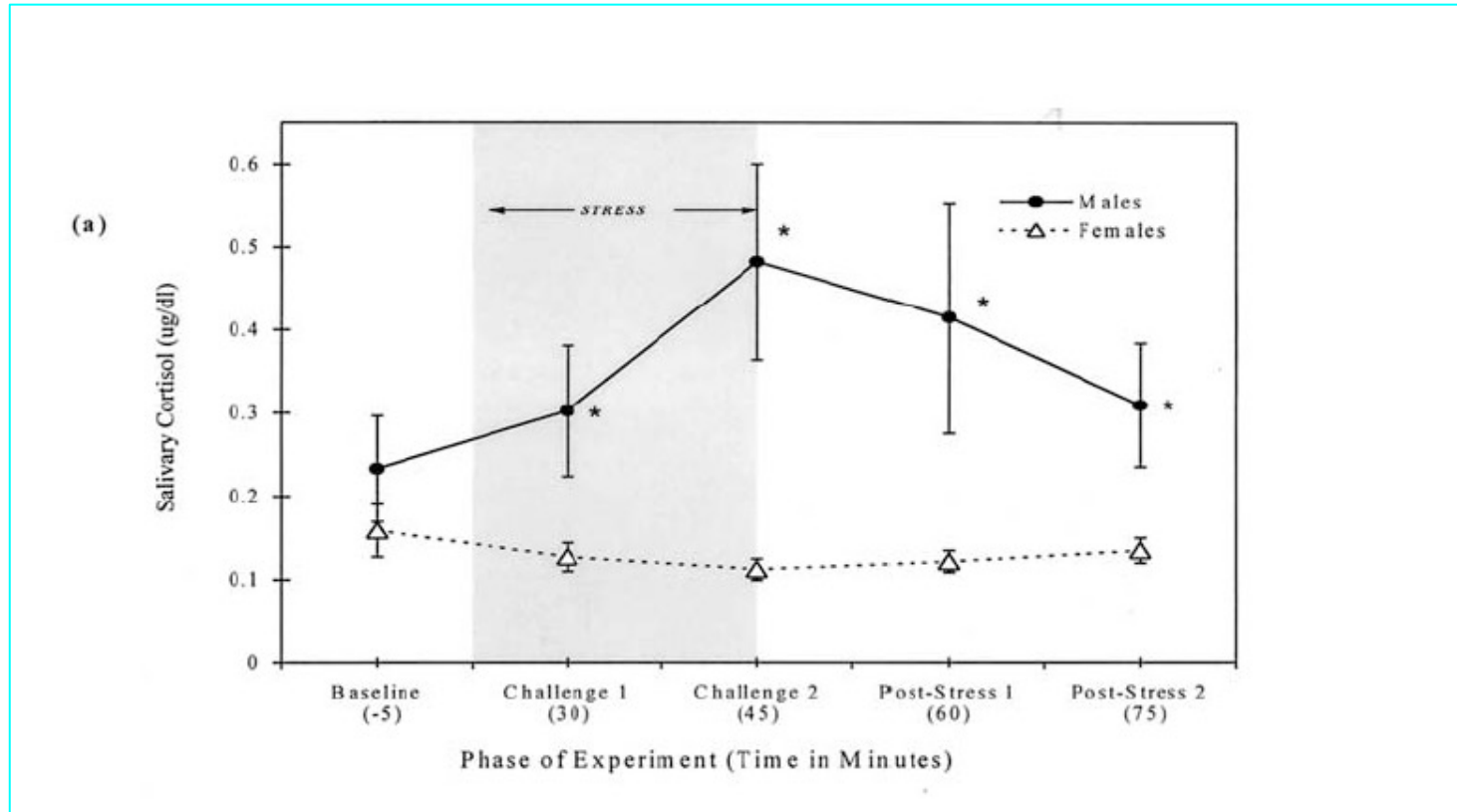
Le sexe anatomique

- Femelle
- Mâle



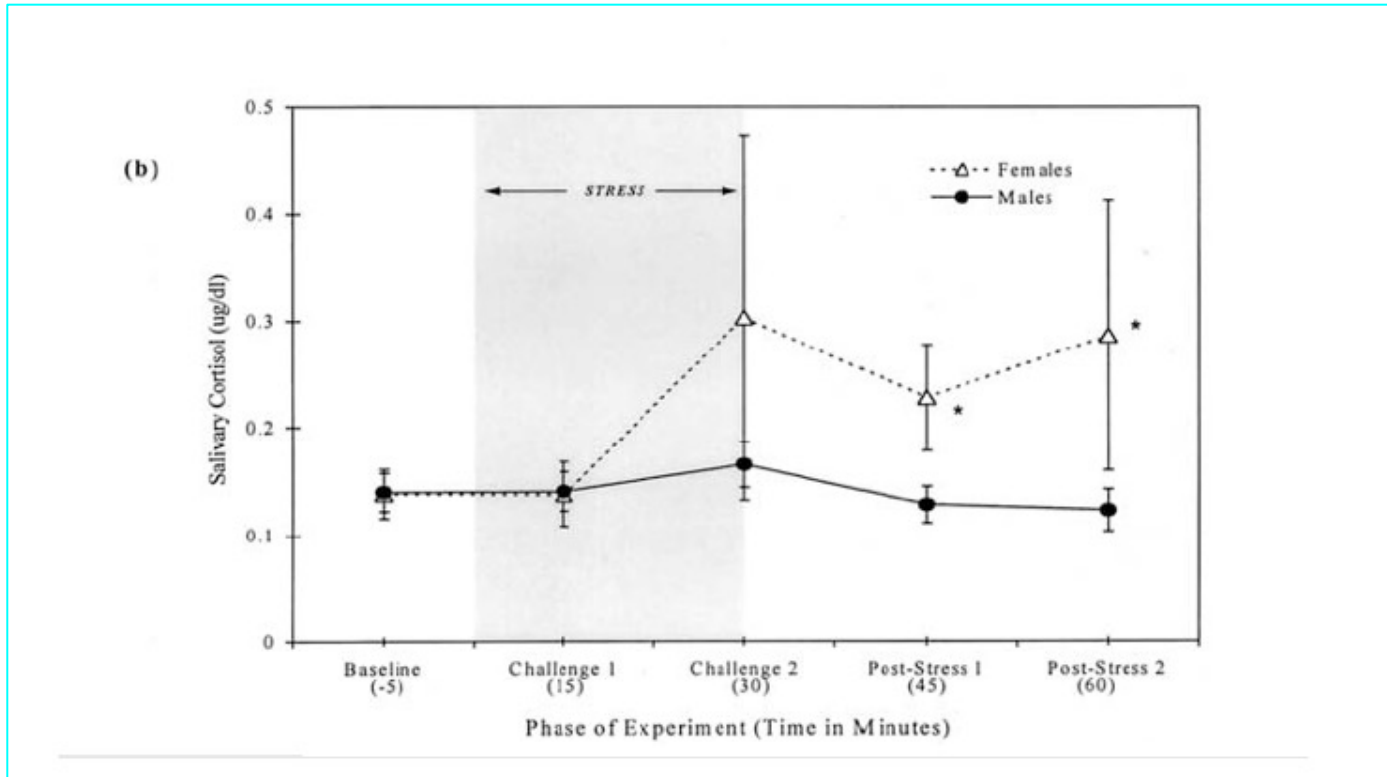
Sexe assigné à la naissance

Stresseur : “Achievement”



Stroud et al. (2002) *Biological Psychiatry*

Stresseur : Reject social



Stroud et al. (2002) *Biological Psychiatry*



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

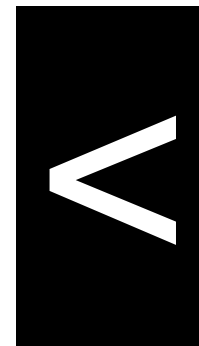
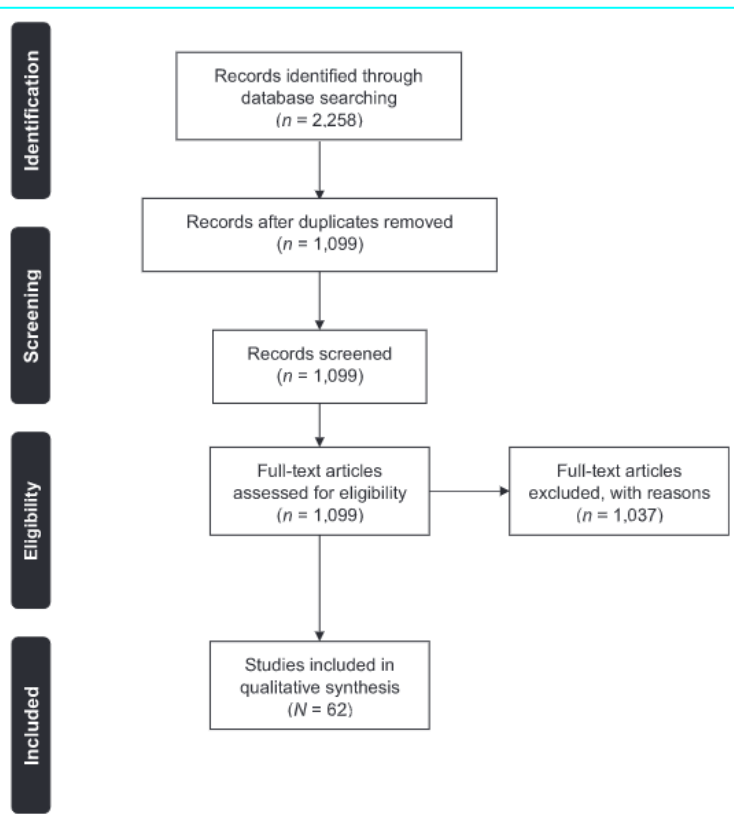
Frontiers in Neuroendocrinology

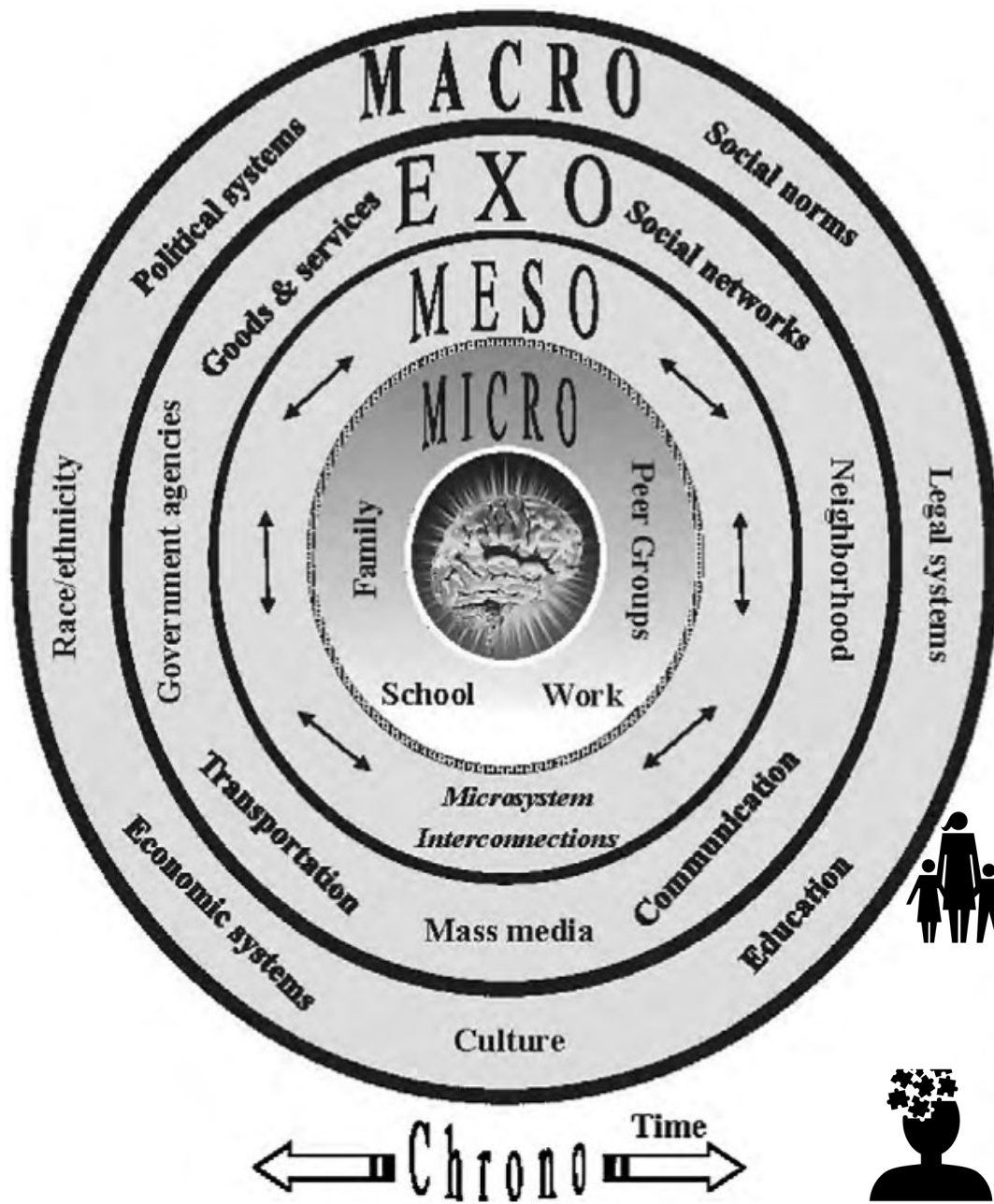
journal homepage: www.elsevier.com/locate/yfrne



Allostatic load and women's brain health: A systematic review

Philippe Kerr^{a,b,c,d}, Sarah Kheloui^{a,c,d}, Mathias Rossi^{a,c,d}, Marie Désilets^c, Robert-Paul Juster^{a,c,d,*}





Identified Allostatic Load Factors

Macro-system

- **Socioeconomics:** education, income, occupational status, downward mobility
- **Race/ethnicity:** Non-Caucasians
- **Spirituality:** religious attendance, sense of meaning/purpose



Exo-system

- **Neighborhoods:** crowding, noise, lack of housing, rural/urban.
- **Social networks:** emotional support, ties with friends/neighbours, social position



Micro-system

- **Family:** attachment, violence/turmoil, single parent, separation, care-giving, demands/criticisms, spouse
- **Work:** control, demands, decisions, career instability, effort-reward imbalance
- **Peer groups:** homelessness/squatter



Individual

- **Genetics:** ACE rs4968591 gene
- **Personality:** type A/hostility, locus of control





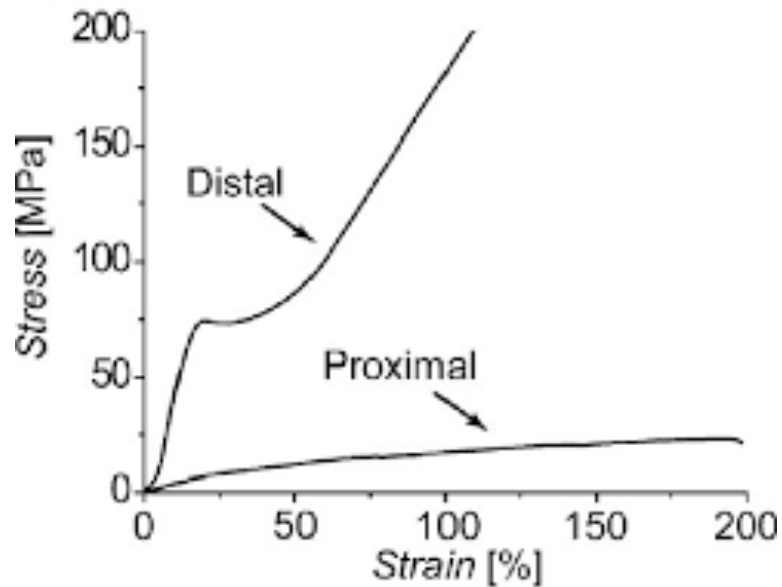
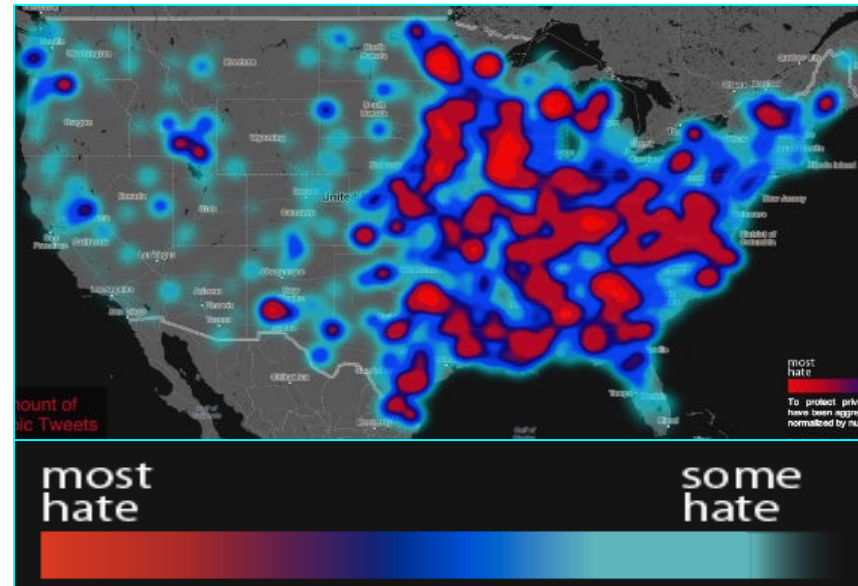
Orientation sexuelle

Stress des minorités sexuelles et de genres

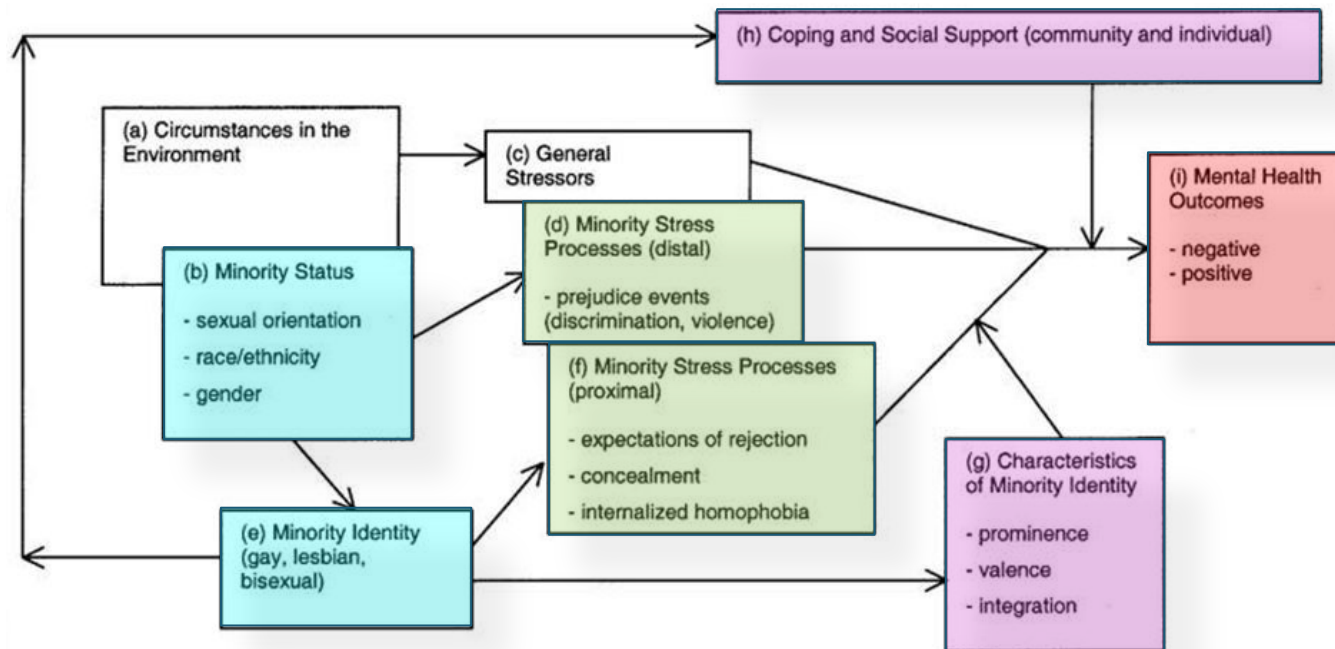
- Le stigma associé aux personnes lesbiennes, gays, bisexuelles, et transgenres (LGBT) les rend plus vulnérables aux maladies reliées au stress (*Institute of Medicine, 2011*)



TWEETS HOMOPHOBQUES (*Monica Stephens*)

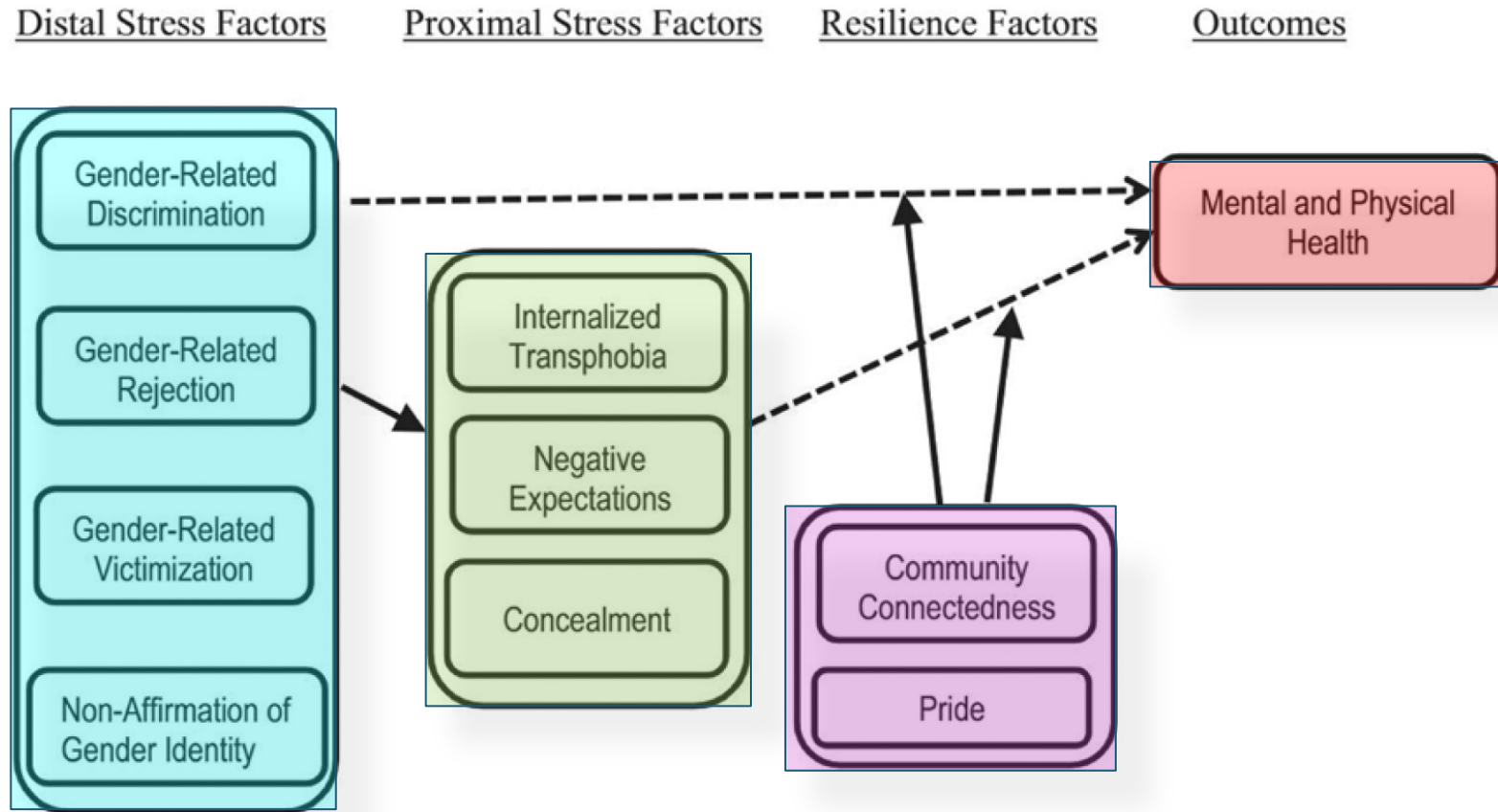


Modèle du stress chez les minorités sexuelles

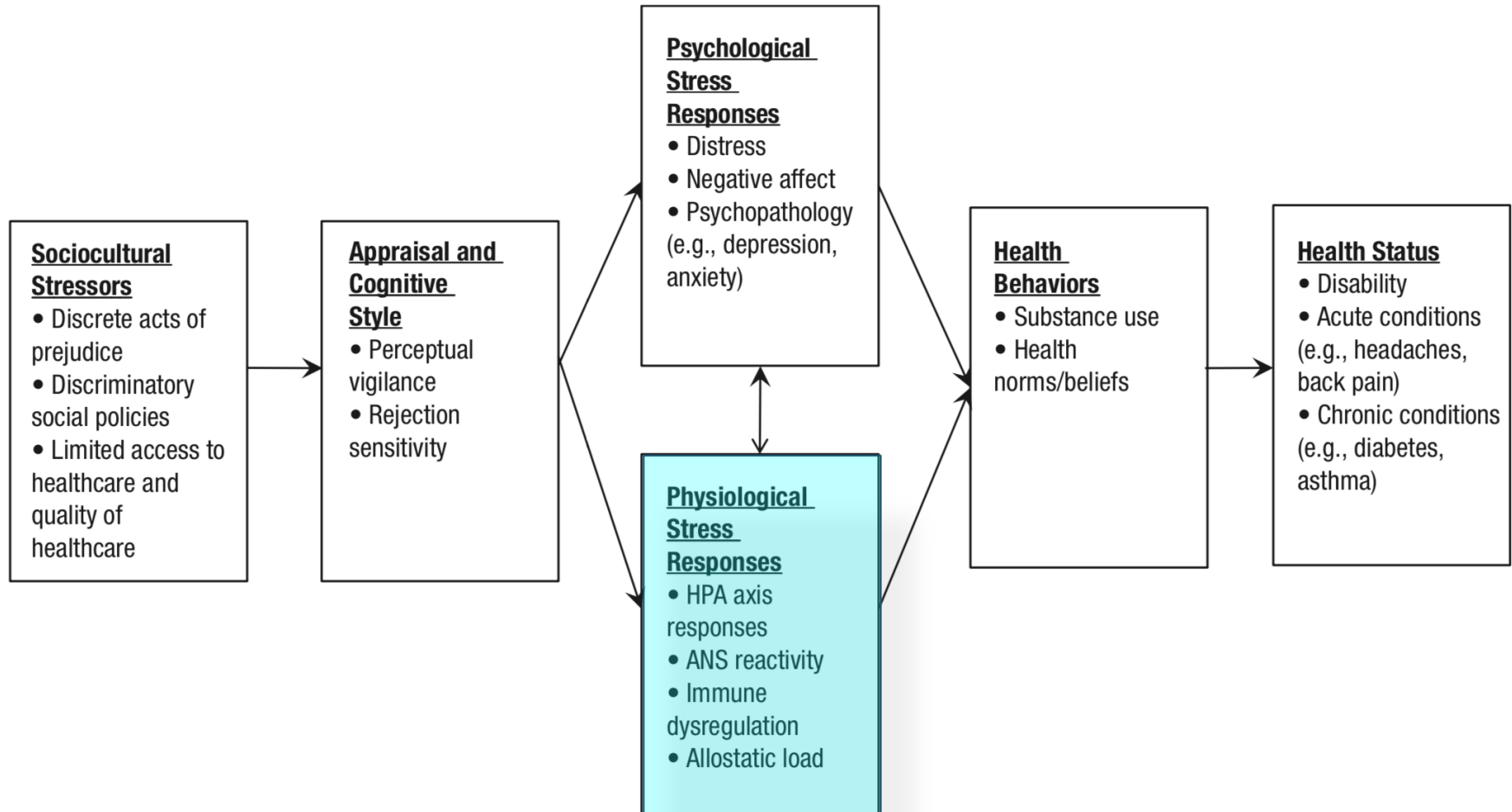


Meyer IH. Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence. *Psychol Bull.* 2003 September; 129(5): 674–697.

Modèle du stress chez les minorités de genre



Stress et santé physique des minorités sexuelles



Rapport de l'Institut de Médecine (2011) sur la santé des LGBT



The Health of Lesbian, Gay, Bisexual, and Transgender People

**Building a Foundation for Better
Understanding**

Committee on Lesbian, Gay, Bisexual, and Transgender Health Issues
and Research Gaps and Opportunities

Board on the Health of Select Populations

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

4 perspectives clés pour le futur en recherche

- (1) Histoire personnelle
- (2) Stress des minorités

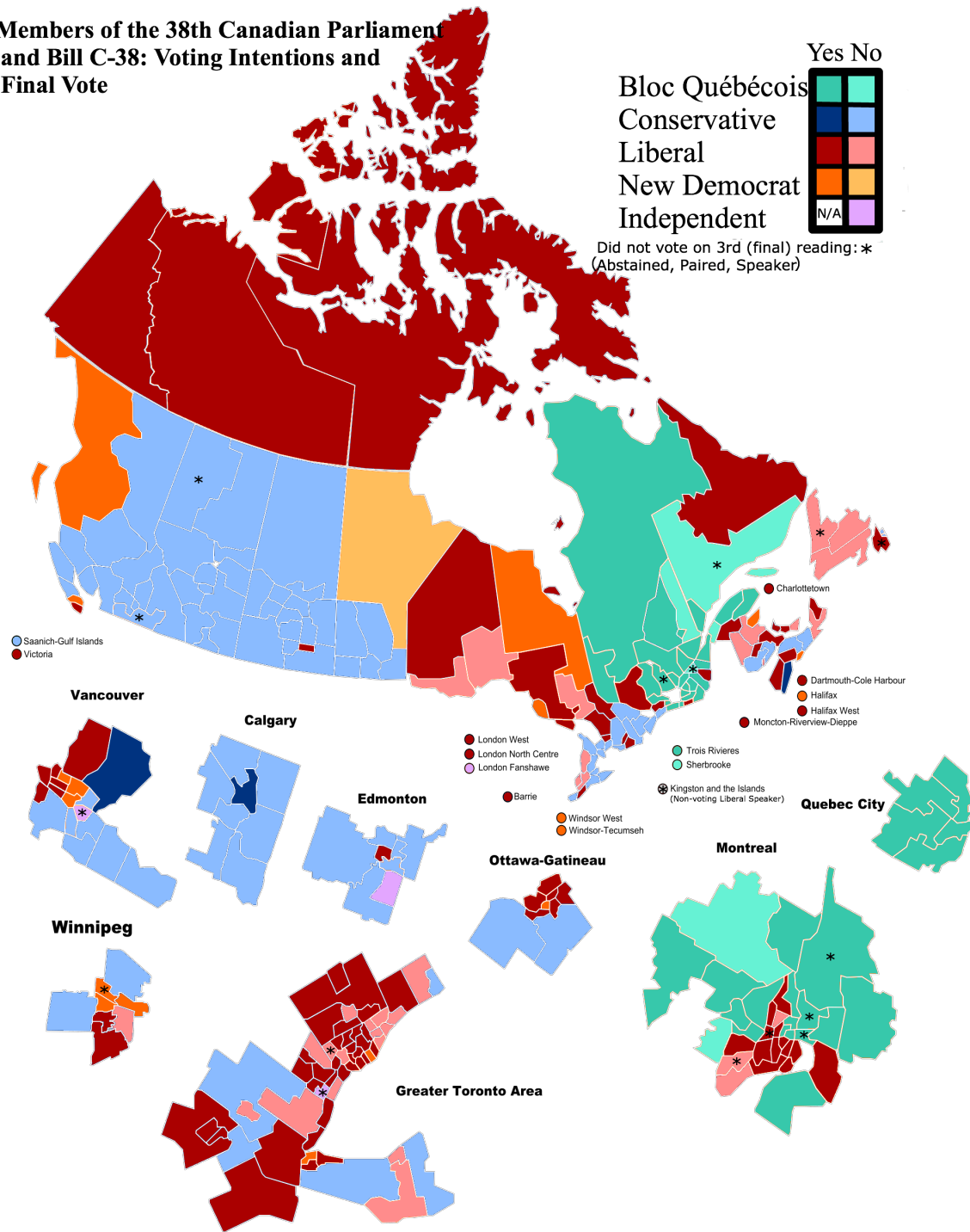
- (3) Intersectionnalité
- (4) Écologie sociale

Members of the 38th Canadian Parliament and Bill C-38: Voting Intentions and Final Vote

Bloc Québécois
Conservative
Liberal
New Democrat
Independent



Did not vote on 3rd (final) reading: *
(Abstained, Paired, Speaker)



Participant·e·s



- $N = 87$

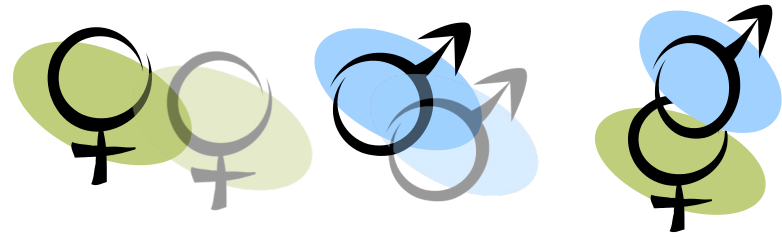
	♀	♂
Lesbiennes :	$n = 8$	Hommes gais : $n = 20$
Bisexuelles :	$n = 12$	Bisexuels : $n = 6$
Hétérosexuelles :	$n = 20$	Hétérosexuels : $n = 21$

- Âges 18 à 45 ($M = 24.68$, $SEM = .606$)

Orientation sexuelle








- Contactés en utilisant trois méthodes :

1) Publicité



2) Question ouvert

3) Questionnaire

Kinsey Scale of Sexual Behavior						
0	1	2	3	4	5	6
						
Exclusively heterosexual behavior	Incidental homosexual behavior	More than incidental homosexual behavior	Equal amount of homo- and heterosexual behavior	More than incidental heterosexual behavior	Incidental heterosexual behavior	Exclusively homosexual behavior
← Ambisexual Behavior →						

Status de révélation

- L'identification de son orientation sexuelle et le dévoilement de celle-ci à sa famille et/ou à ses amis sont souvent les deux stressseurs les plus significatifs dans la vie des GLBs (Hershberger, Pilkington, & D'Augelli, 1997)

Instructions: Essayez de vous rappeler les sentiments et les circonstances que vous avez vécus pendant le processus de l'identification et de l'acceptation de votre orientation sexuelle :

- A) Quel âge aviez-vous quand vous avez eu les premières attirances envers le même sexe? _____
 - B) Quel âge aviez-vous quand vous vous avez identifié avec certitude votre orientation sexuelle? _____
 - C) À quel âge l'avez-vous annoncé à vos amis, si vous l'avez fait? _____
 - D) À quel âge l'avez-vous annoncé à votre famille, si vous l'avez fait? _____
-

- Révélé = A, B, C, D Remplis
- Non-révélé = 1+ manquants
- Ways of Coping Checklist

Protocole

1^{ère} visite (8:00 – 11:00)

Arrivée

0 10 20 30 40

Départ

Consentement



Q?

Q?



Instructions

Maison/Travail



Cortisol
Diurne
Salivaire



12-Hr
Catécholine
Urinaire

+ Q?

2^e visite (12:00 – 19:00)

Arrivée

∞

1

10

2

20

3

30

HS-1

4

40

5

50



6

60

HS-2

7

70

8

80

9

90

10

100

Départ

110

Repos

Anticipation

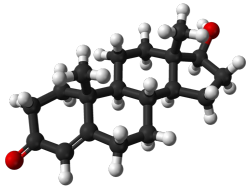
Q?

Q?

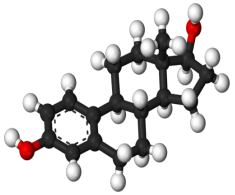
Q?

TSST

50\$
Compte-rendu



Testostérone

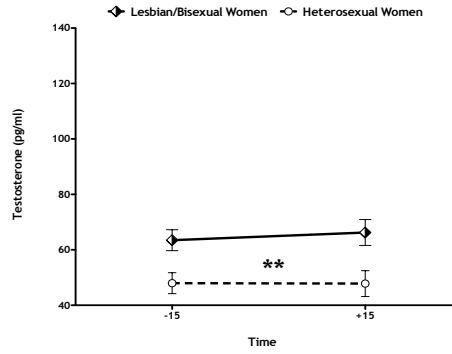


Estradiol

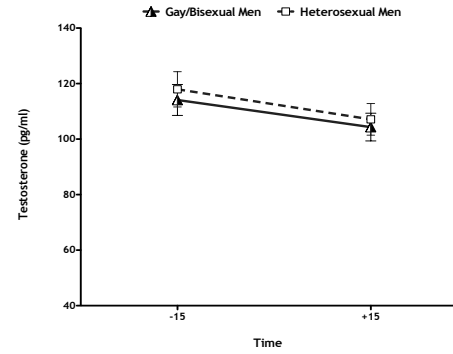


Progestérone

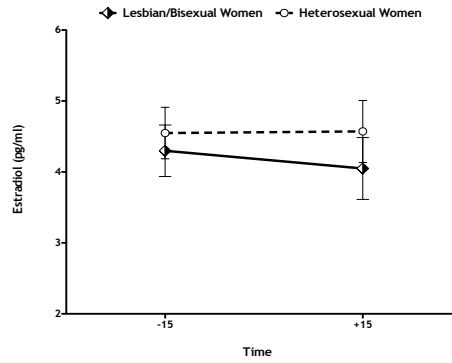
A



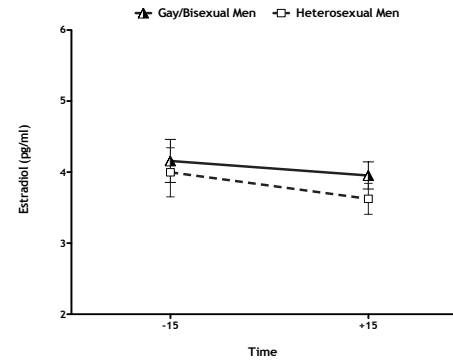
B



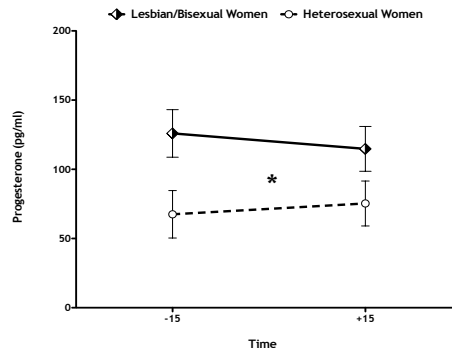
C



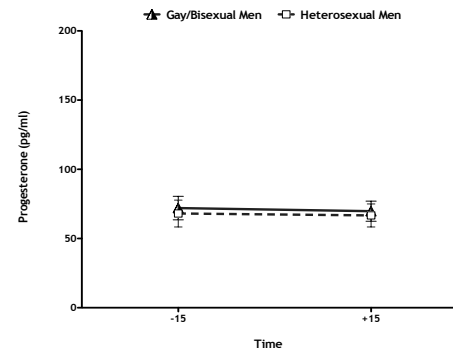
D



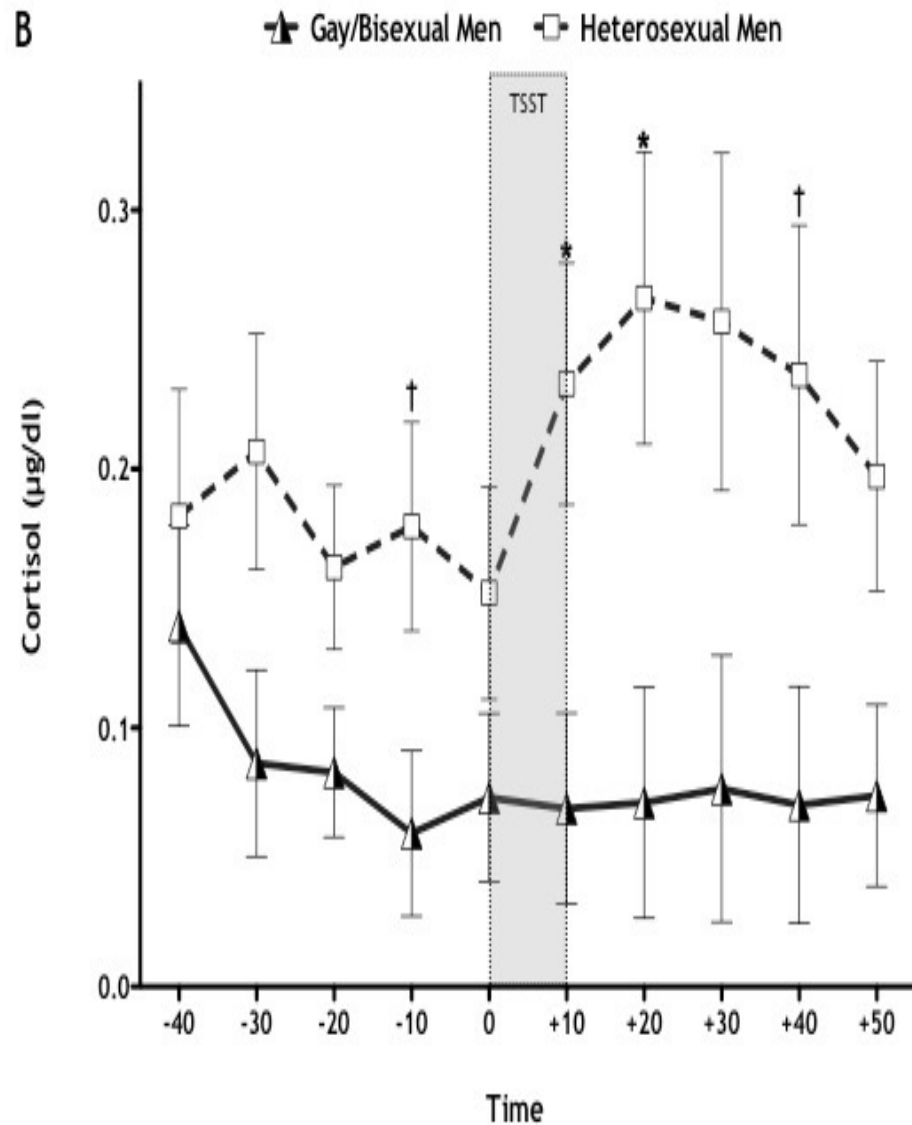
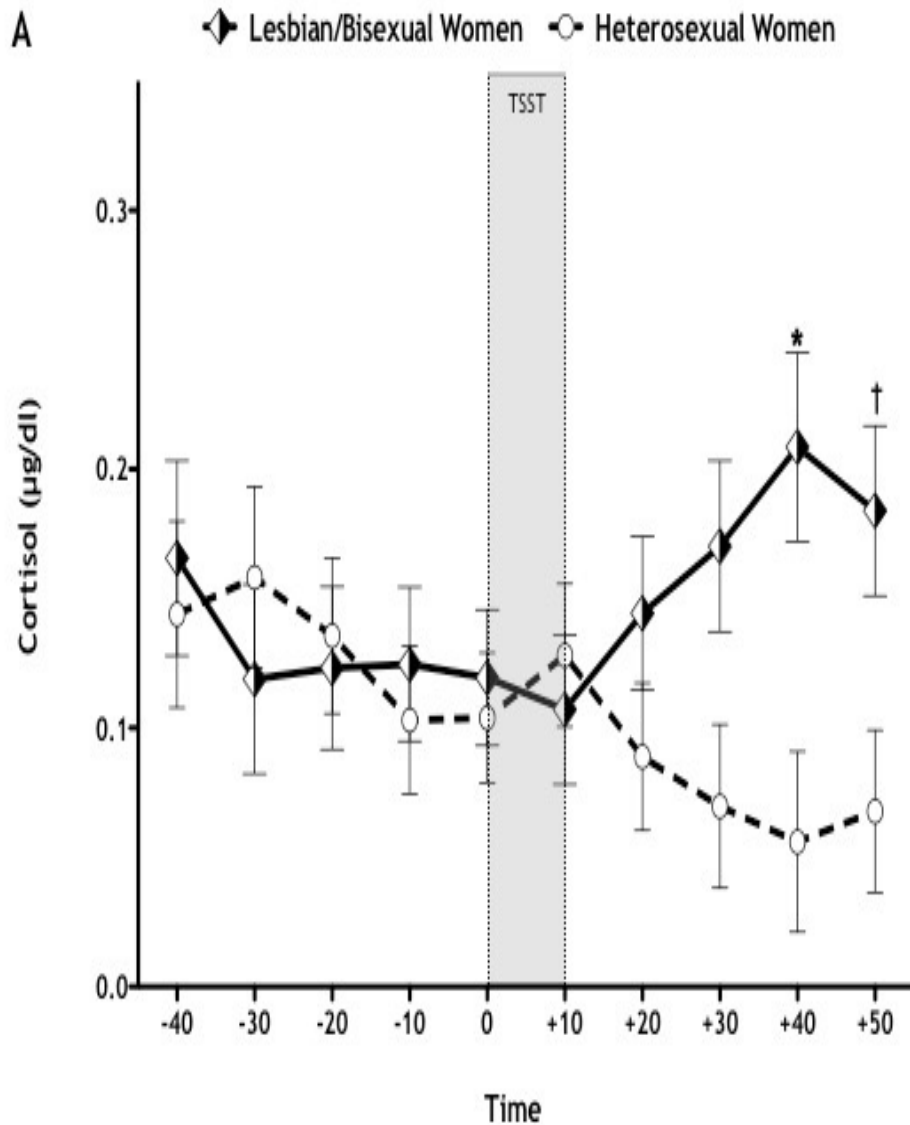
E



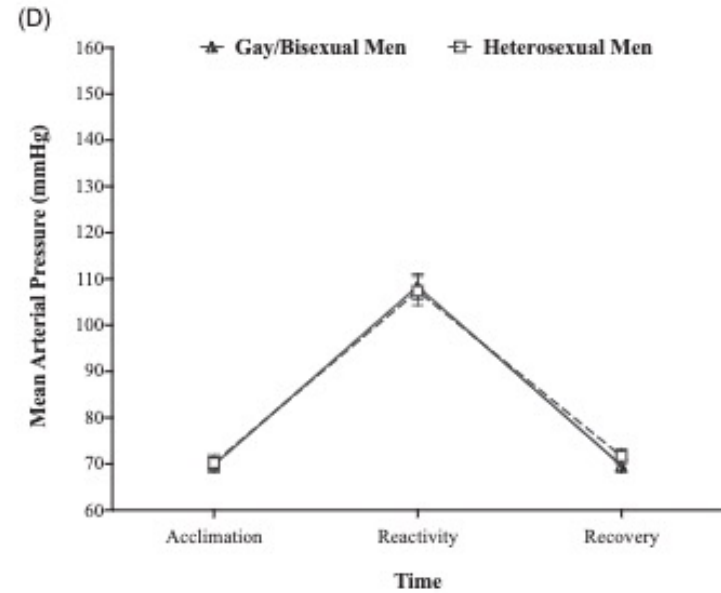
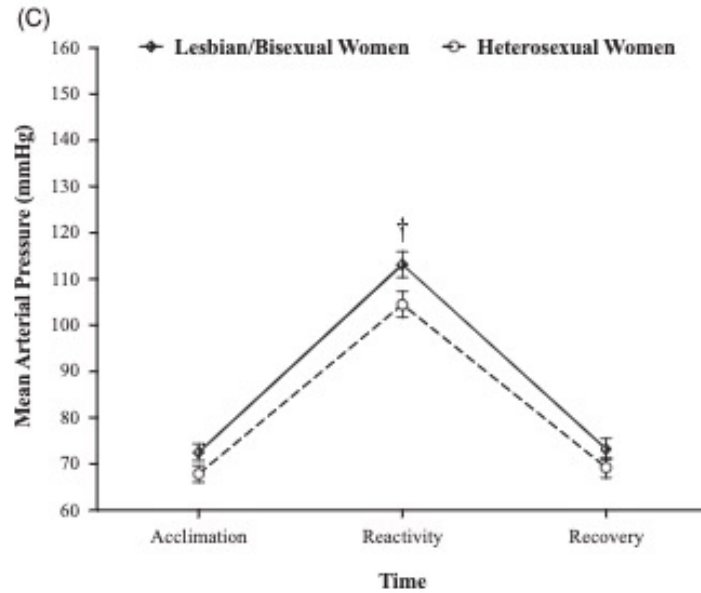
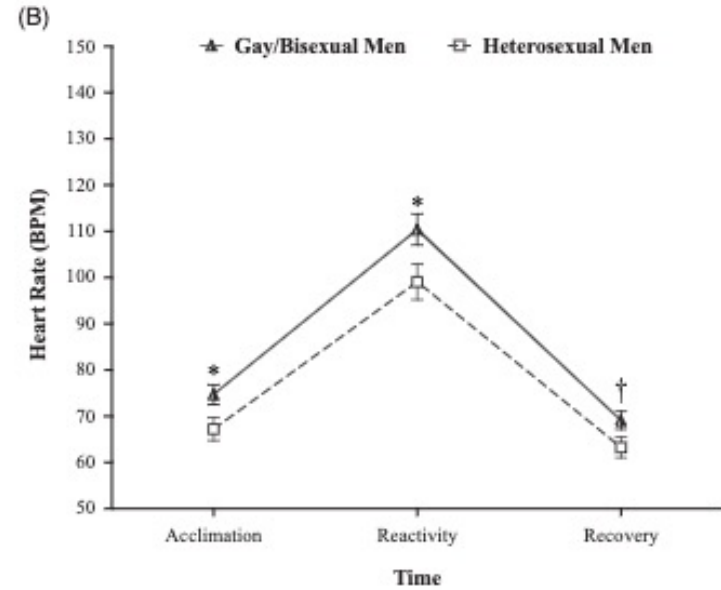
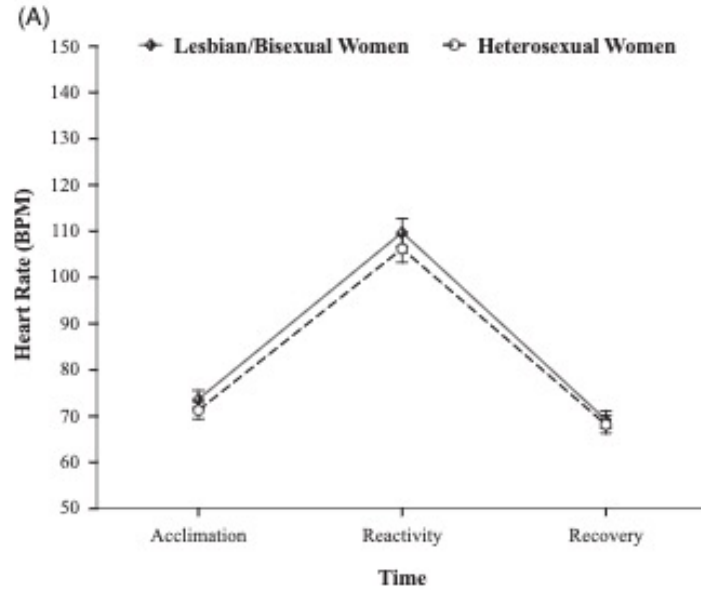
F



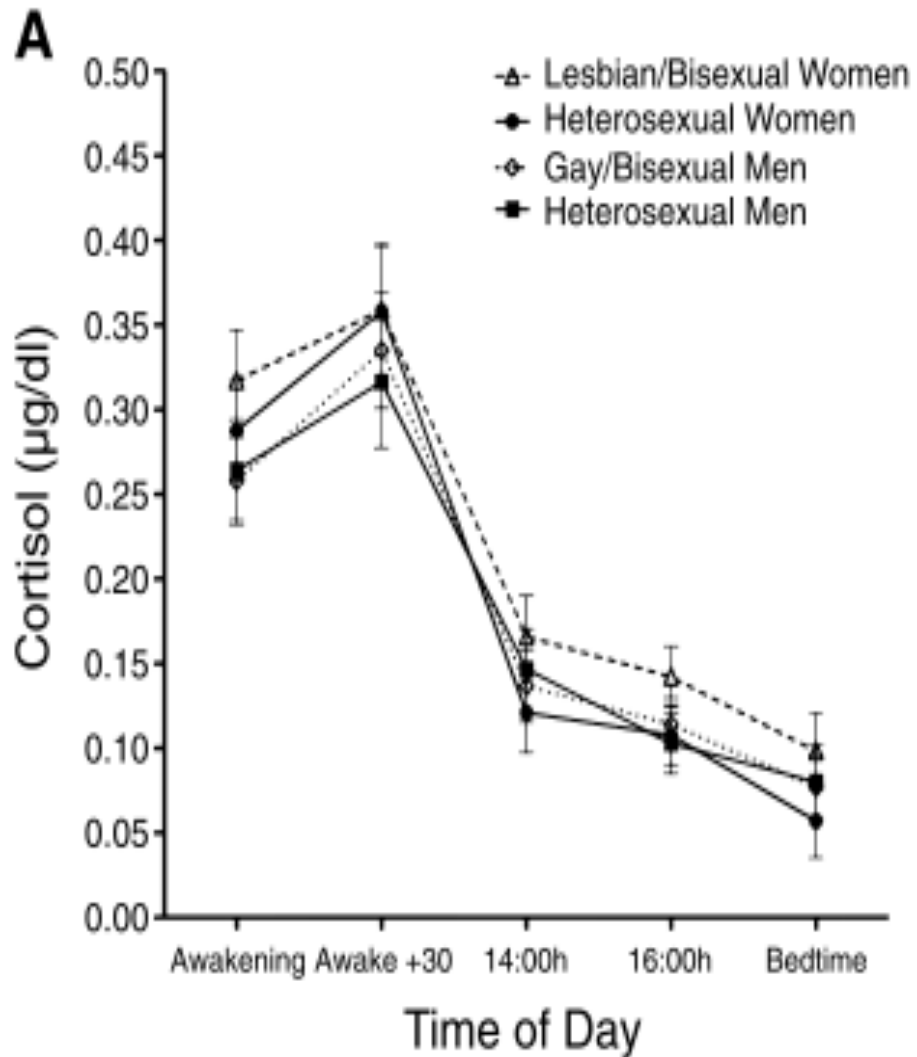
L'orientation sexuelle et le cortisol réactif



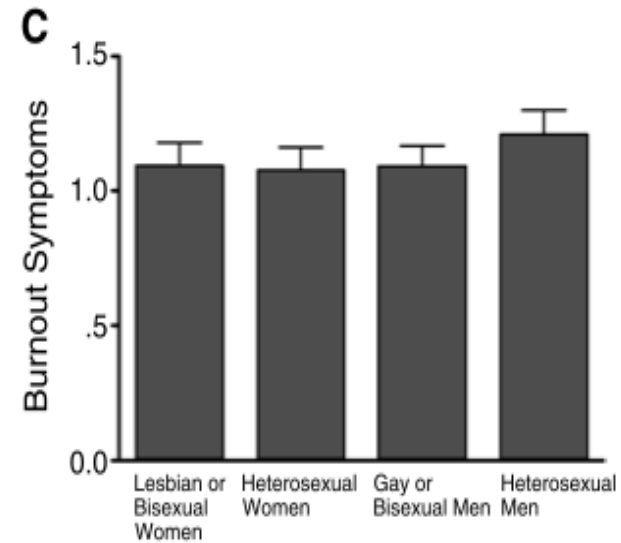
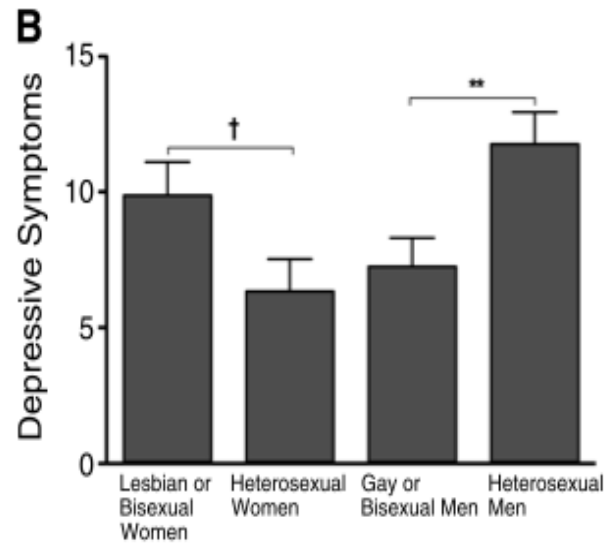
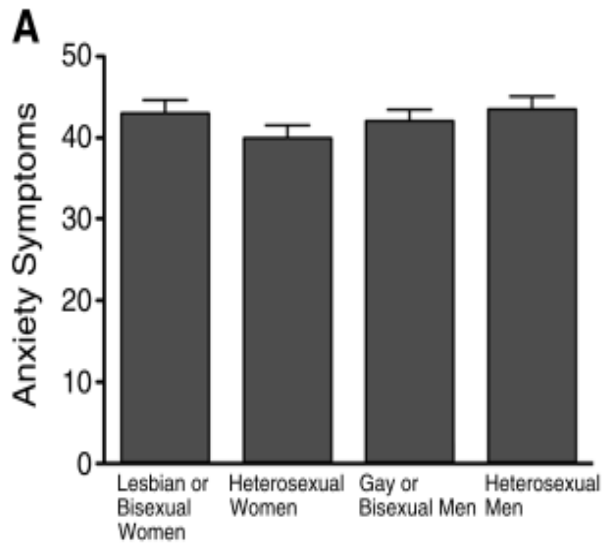
L'orientation sexuelle et le système cardiovasculaire



L'orientation sexuelle et le cortisol diurne

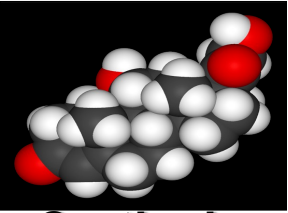


L'orientation sexuelle et la santé mentale

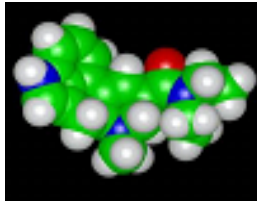


Charge allostatique

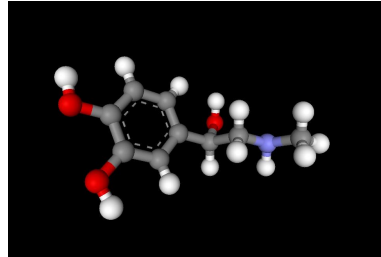
Neuroendocrinien



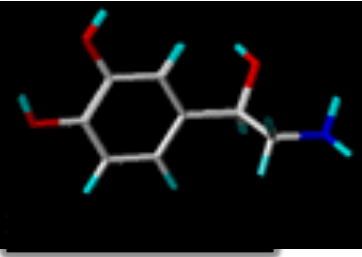
Cortisol



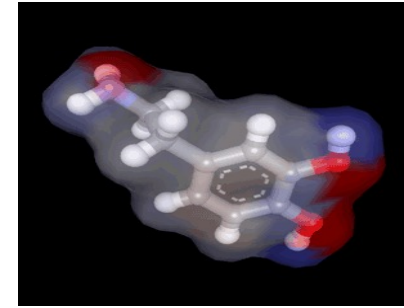
DHEA-S



Adrénaline

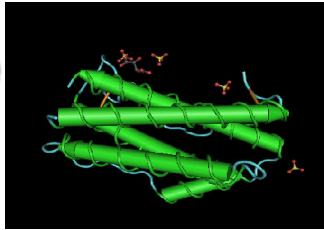


Noradrénaline

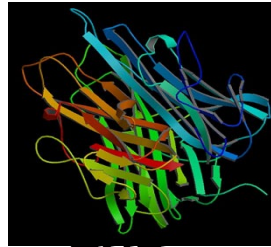


Dopamine

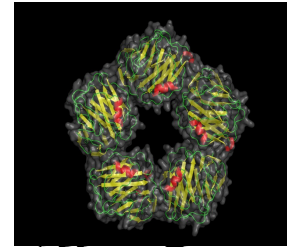
Immunitaire



Interleukin-6



TNF-α

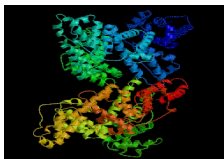


Protéine C-reactive

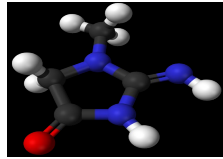


Fibrinogène

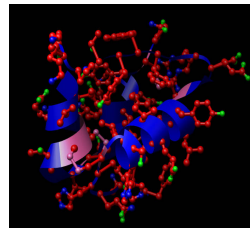
Métabolique



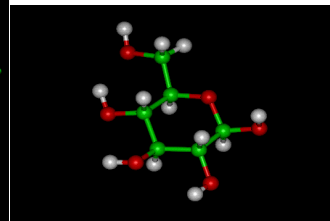
Albumine



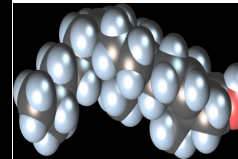
Créatinine



Insuline

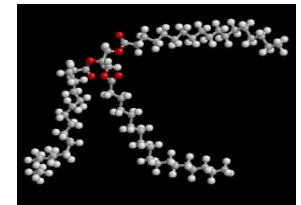


Hb_{A1c}



Cholestérol

Total & HDL



Triglycérides

Cardiovasculaire



Pression artérielle

Systolique &
Diastolique

Anthropométrique

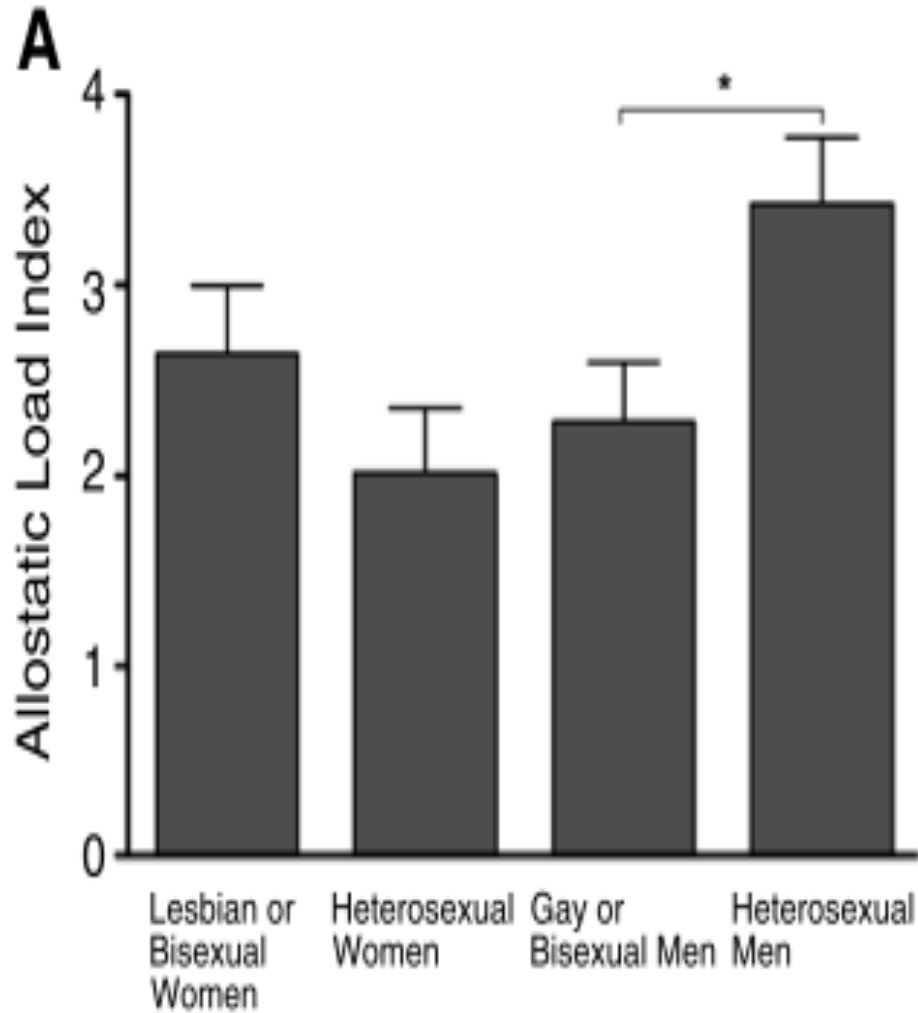
Taille/hanche



IMC

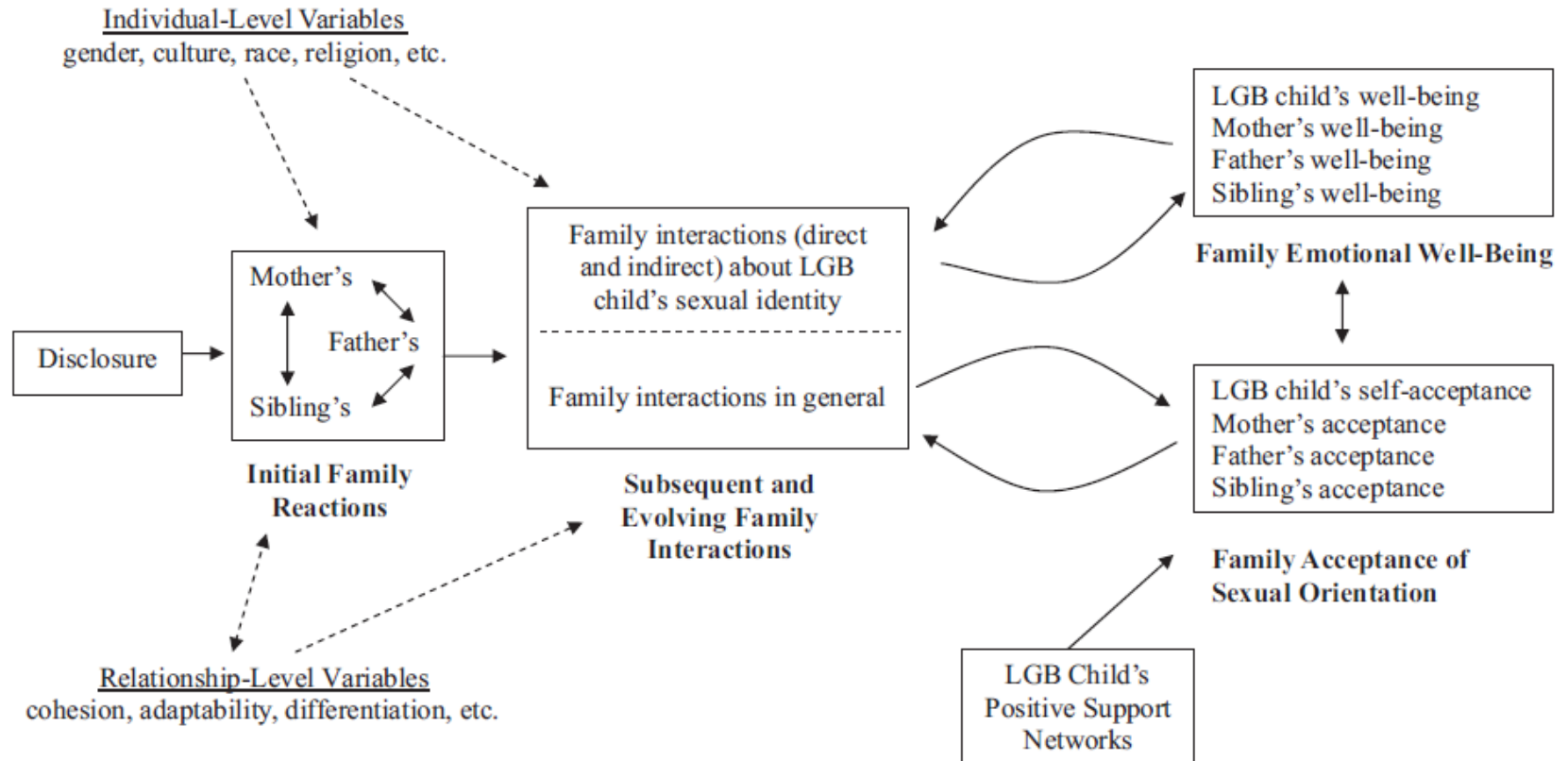


L'orientation sexuelle et la charge allostatique

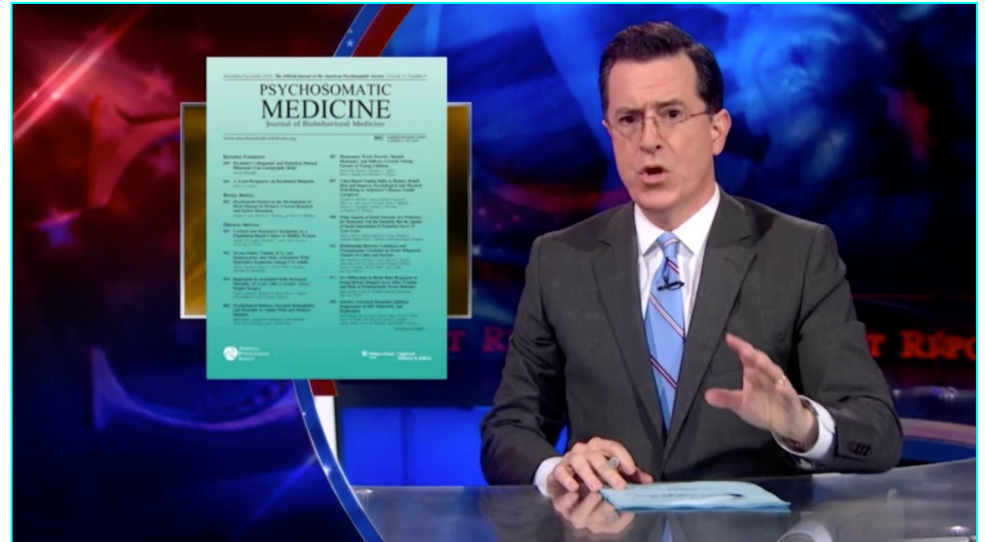




Complexité du 'Coming Out'



Généralisation canadienne ?

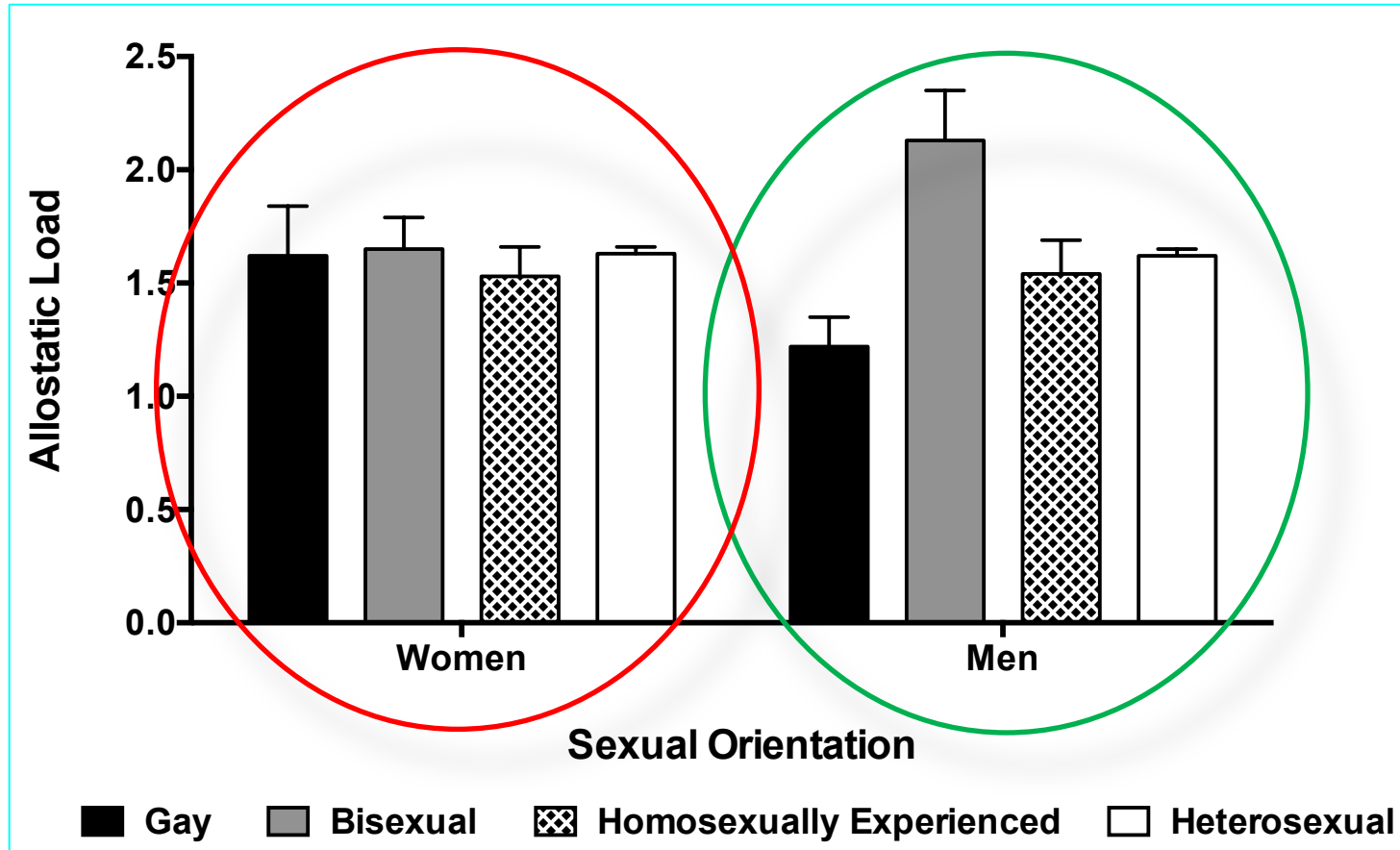


Généralisation américaine ?



“Ils l’ont tu l’affaire, les Américains” – Elvis Gratton

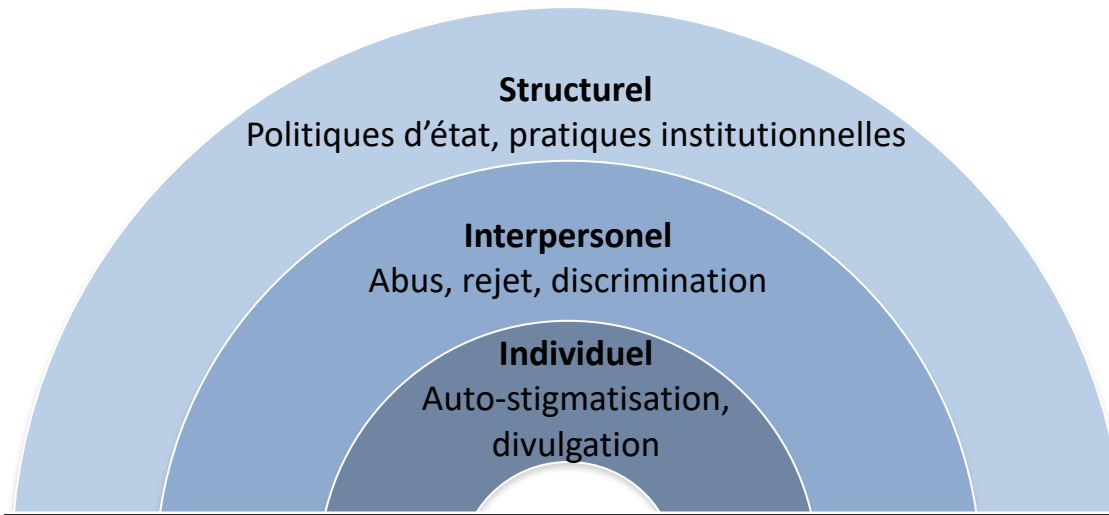
Charge allostatique et orientation sexuelle aux É-U: National Health & Nutrition Examination Survey 2001-2010



Lesbiennes/gais ($n = 211$), bisexuel·le·s ($n = 307$), avec expérience
homosexuelle ($n = 424$) et hétérosexuel(le)s ($n = 13,017$)

Stigma structurel et charge allostatique des LGB:

National Health & Nutrition Examination Survey 2001-2014

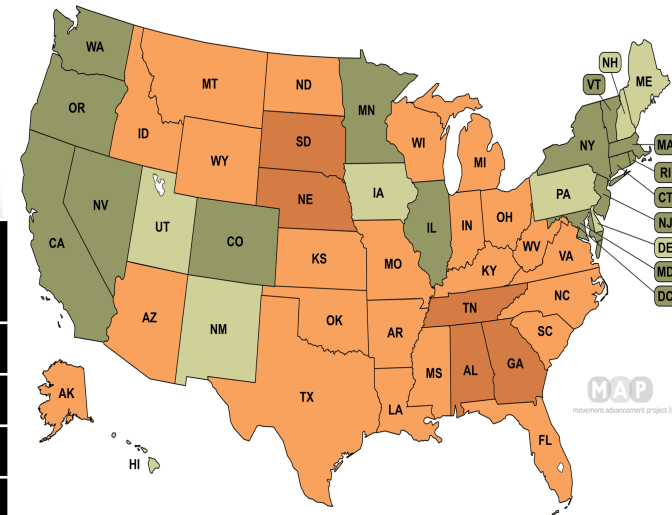


N > 24,000

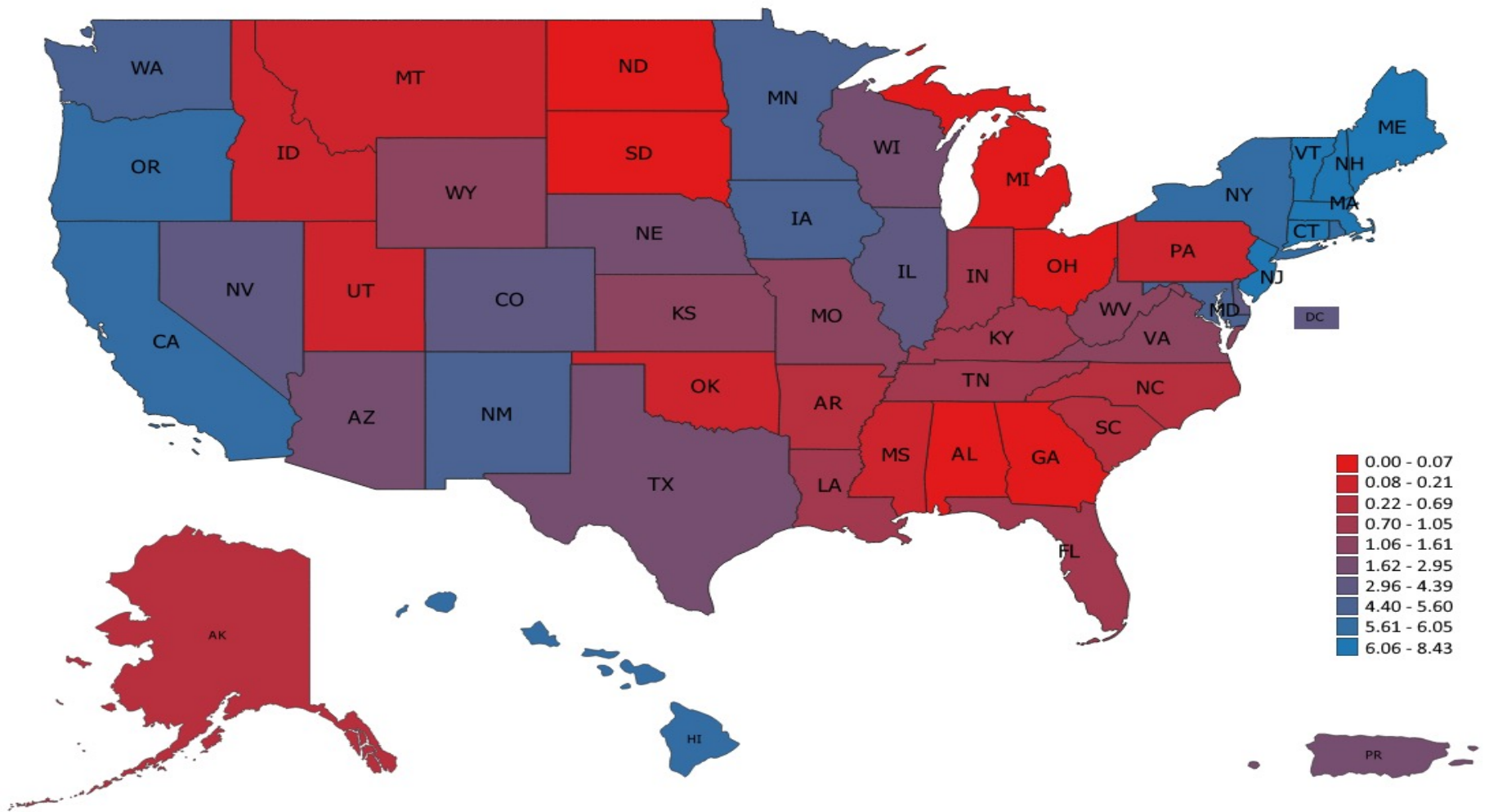
LGB = 875

Stigmatisation structurelle mesurée dans les politiques de l'état

- 1) Protection anti-discrimination en matière d'emploi
- 2) Protection anti-discrimination dans les espaces publics
- 3) Protection anti-discrimination en matière de logement
- 4) Droit au mariage entre personnes de même sexe
- 5) Droit de décision en matière médicale
- 6) Lois parentales (deuxième parent ou adoption conjointe)
- 7) Orientation sexuelle comme classe protégée dans les lois anti-intimidation
- 8) Protection anti-discrimination dans le domaine scolaire
- 9) Orientation sexuelle comme classe protégée dans les lois sur les crimes haineux
- 10) Pas de criminalisation du VIH



Juster, Rutherford, Keyes, & Hatzenbuehler (accès restreint aux données – article en revision)

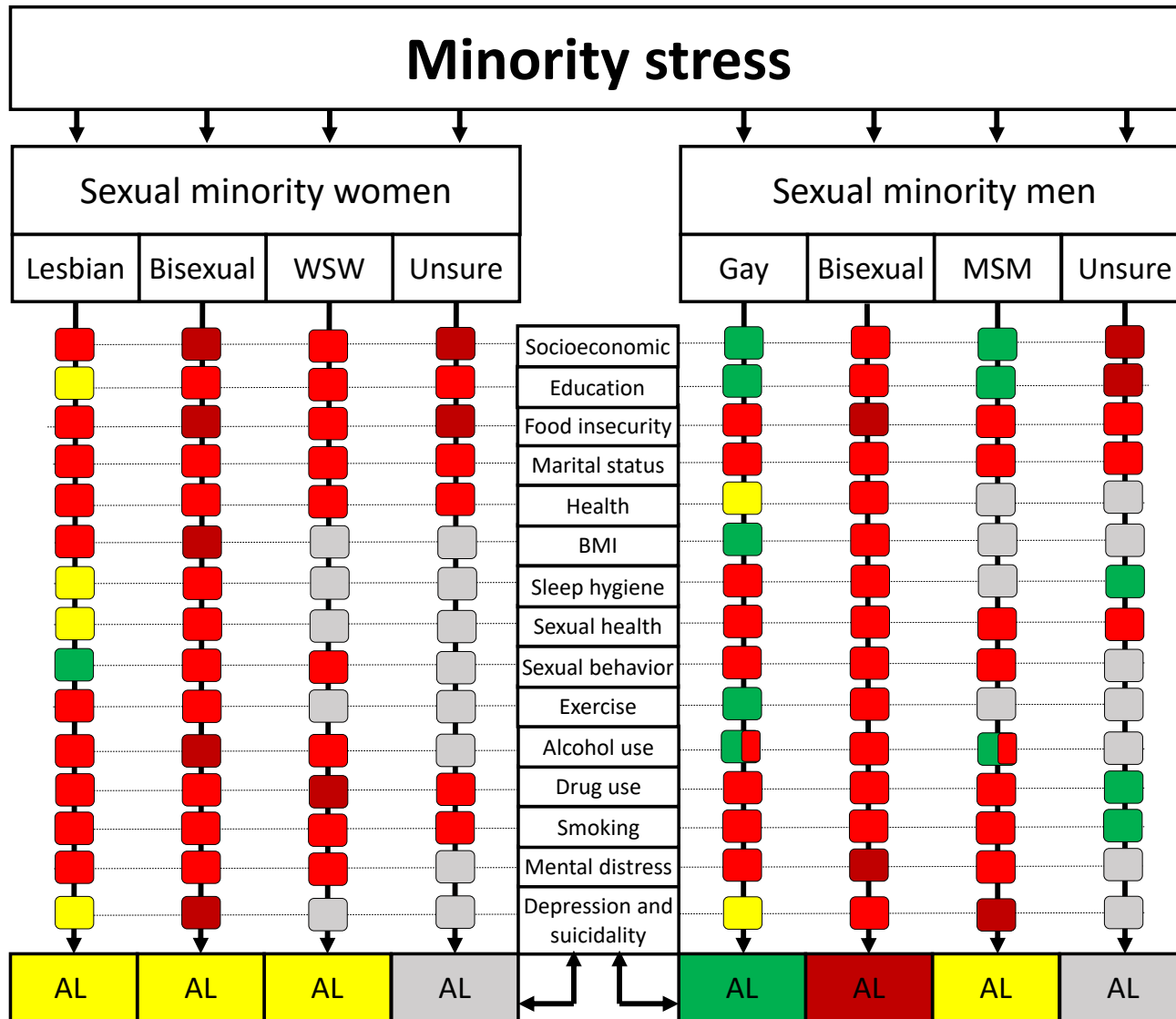


Stigma structurel et charge allostatique des LGB: National Health & Nutrition Examination Survey 2001-2014

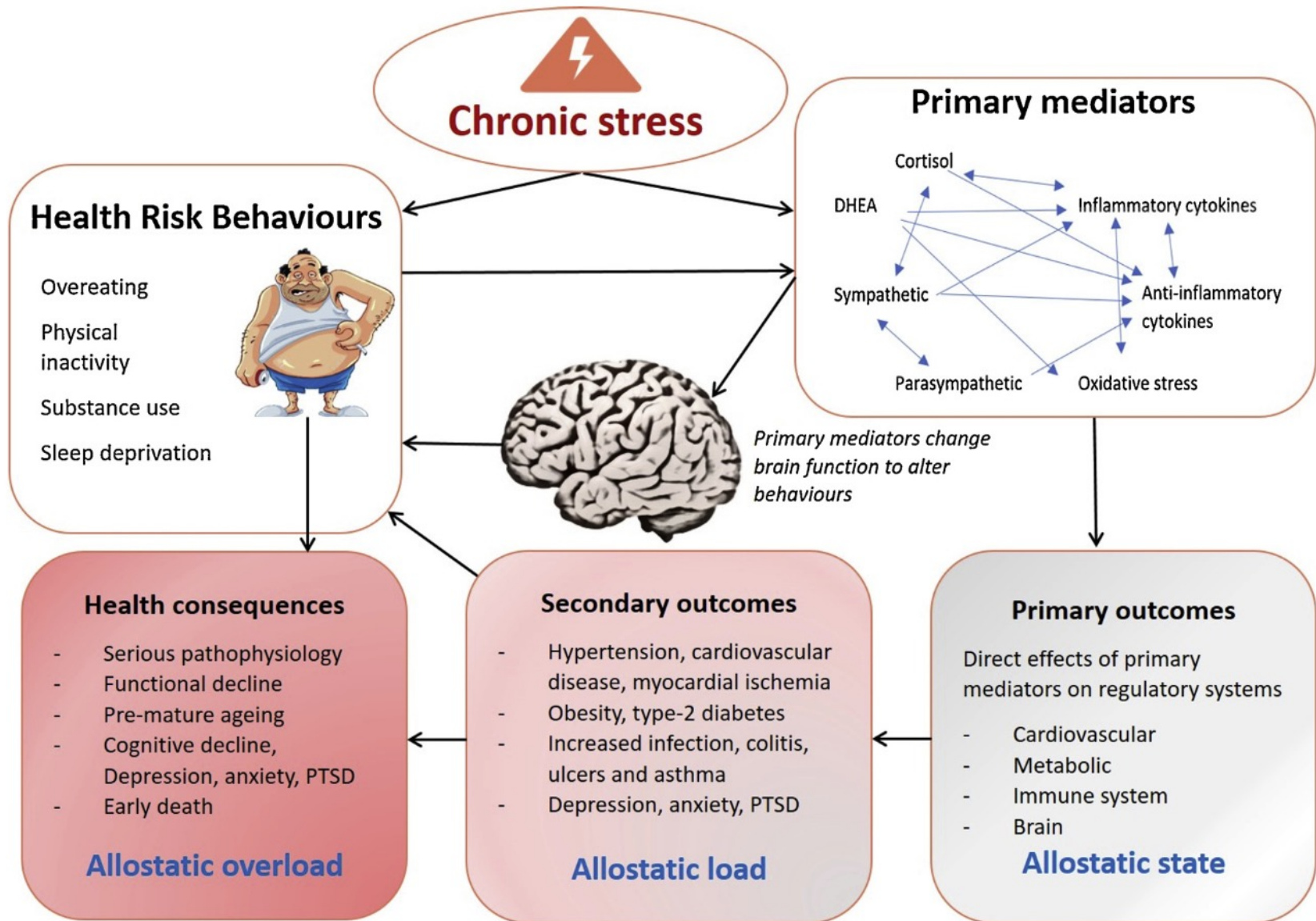


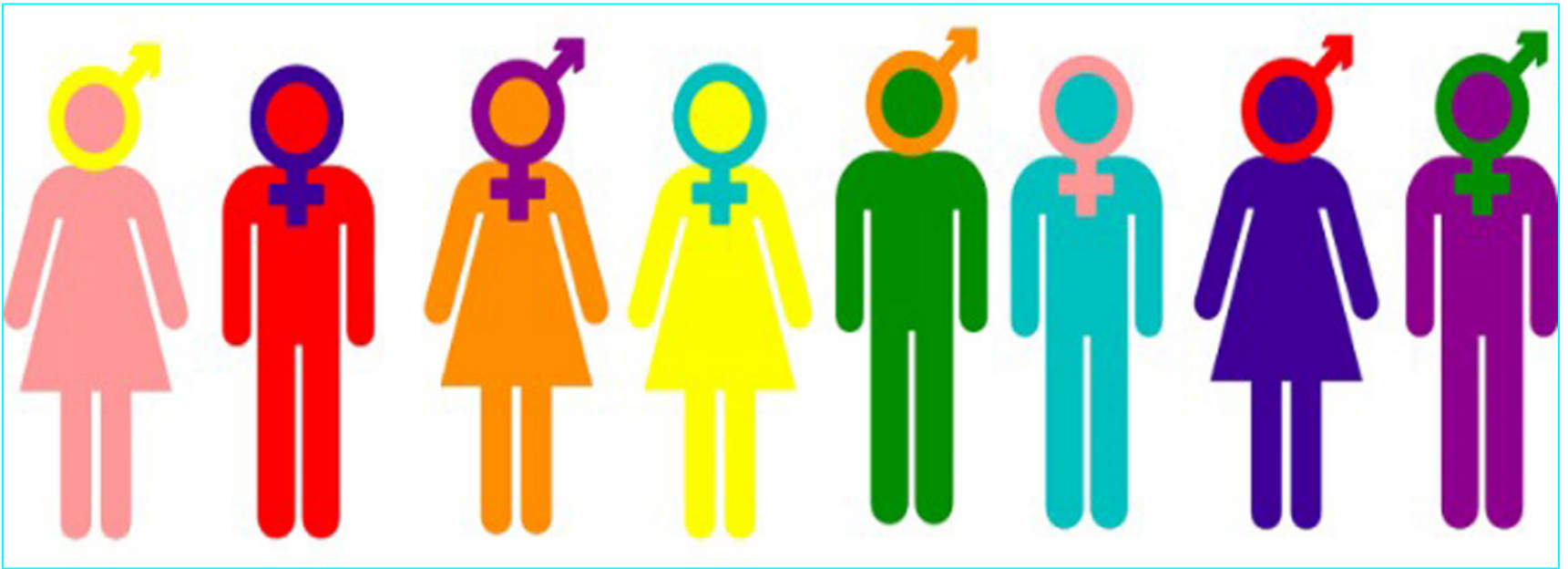


Études NHANES (N = 43) sur l'orientation sexuelle et la santé



Charge allostatique x comportement de santé

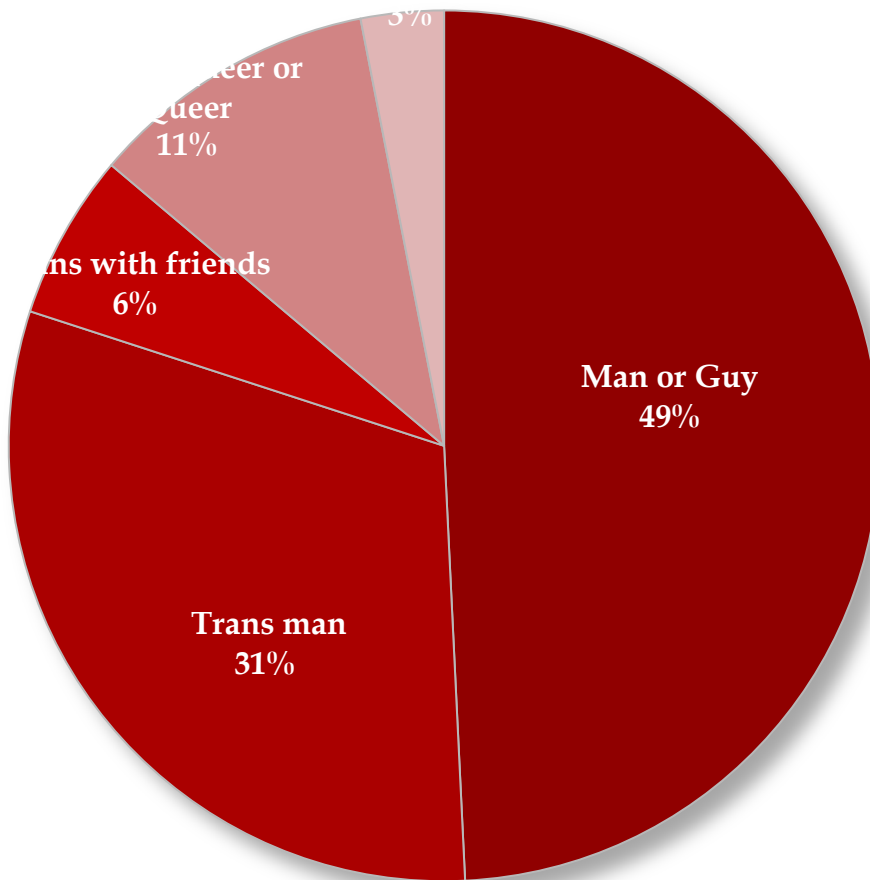




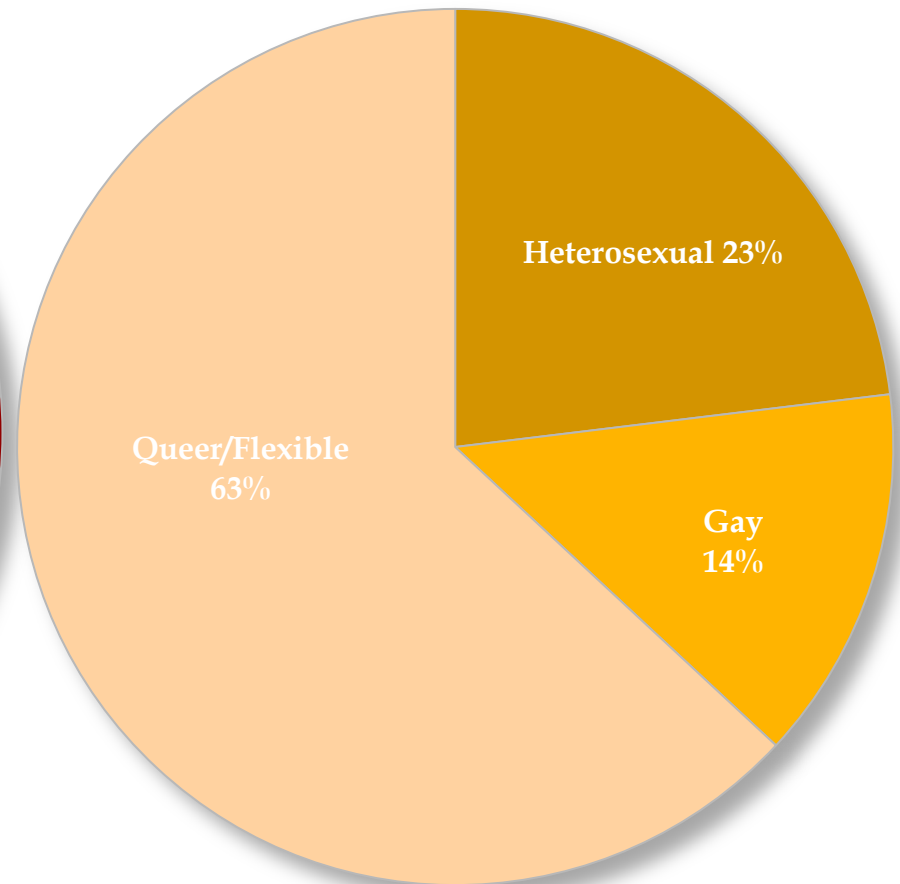
Identité de genre

Identité de genre

Transition Experience Study (L. Zachary DuBois)

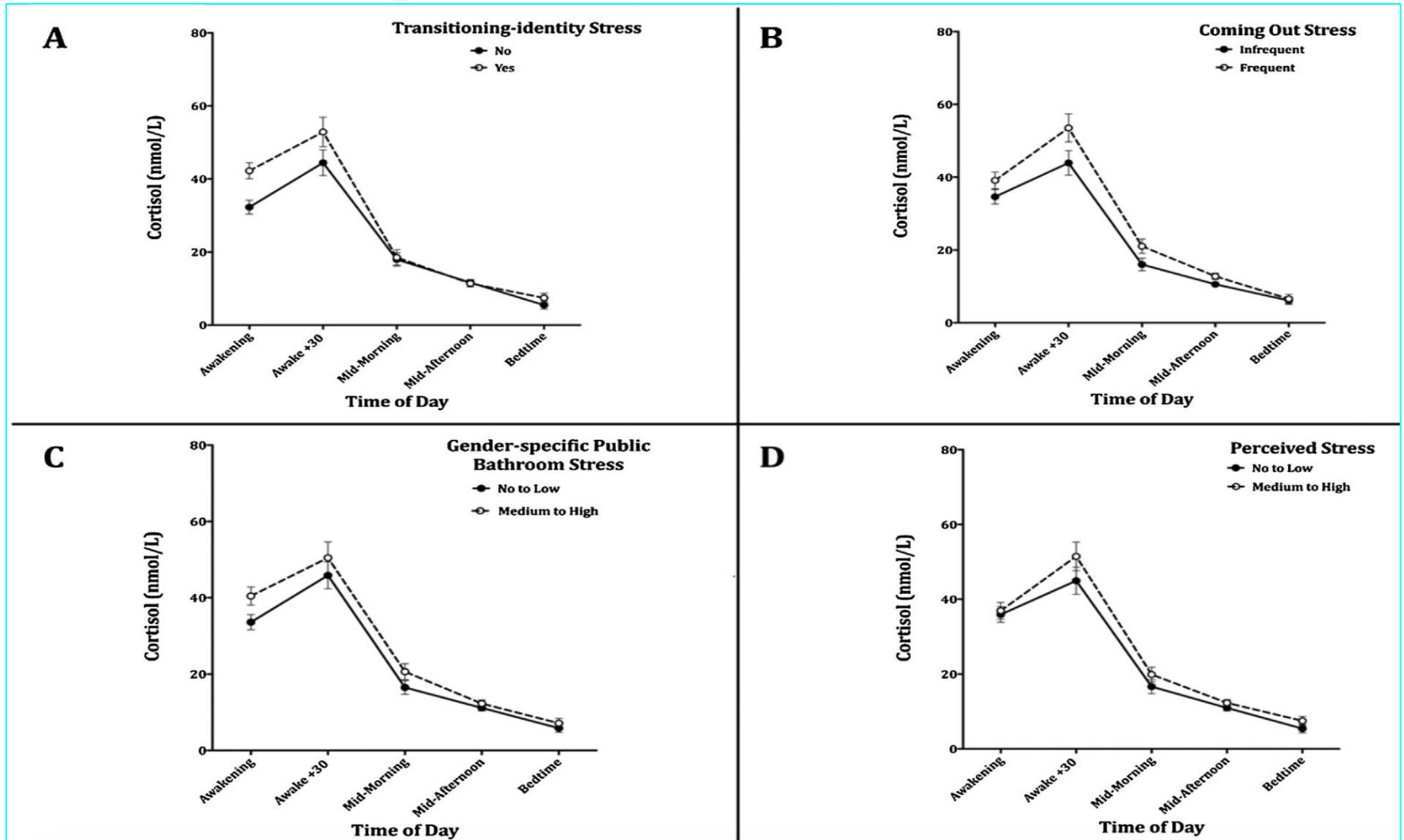


Identité de genre



Orientation sexuelle

Cortisol diurne hyperactif chez les hommes transgenres rapportant un niveau plus élevé de stress lié à leur transition

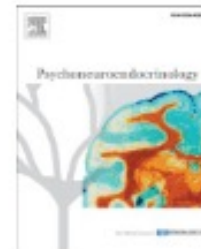




Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Psychoneuroendocrinology

journal homepage: www.elsevier.com/locate/psyneuen



Lived experience and allostatic load among transmasculine people living in the United States

L. Zachary DuBois^{a,*}, Robert-Paul Juster^{b,c}

^a Department of Anthropology, University of Oregon, 355 Condon Hall, Eugene, OR 97403, United States

^b Center on Sex*Gender, Allostasis, and Resilience, 7331 Hochelaga, Pavillon Fernand-Seguin, FS-145-12, Montreal, Quebec H1N 3V2, Canada

^c Department of Psychiatry and Addiction, University of Montreal, Researcher, Research Center of the Montreal Mental Health University Institute, 7331 Hochelaga, Pavillon Fernand-Seguin, FS-145-12, Montreal, Quebec H1N 3V2, Canada



Psychoneuroendocrinology

Supports *open access*

8

CiteScore

4.693

Impact Factor

[Articles & Issues](#) ▾

[About](#) ▾

[Publish](#) ▾

[Search in this journal](#)

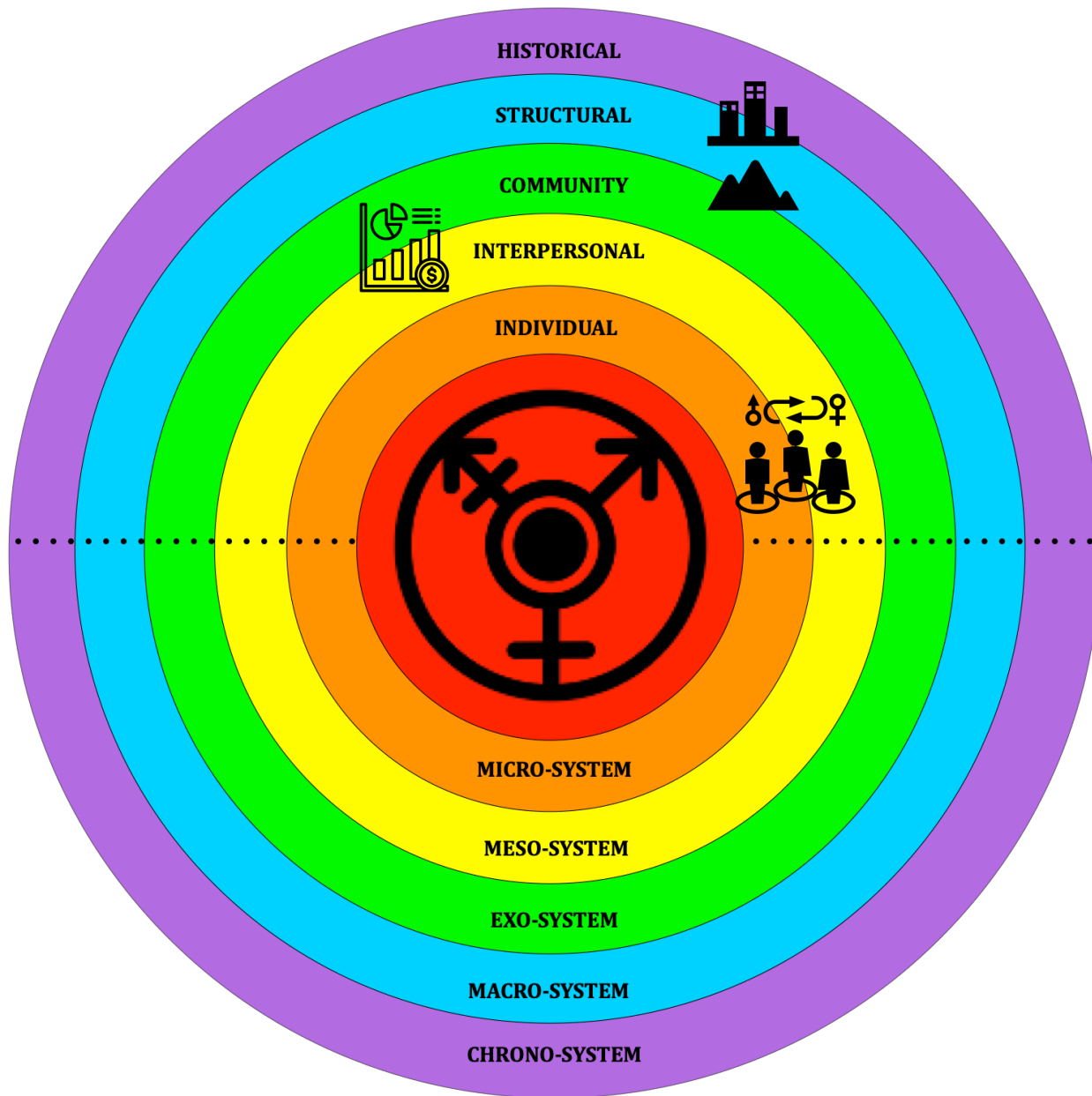
[Submit your article](#) ↗

[Guide for authors](#) ↗

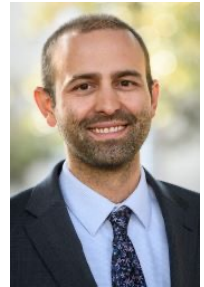
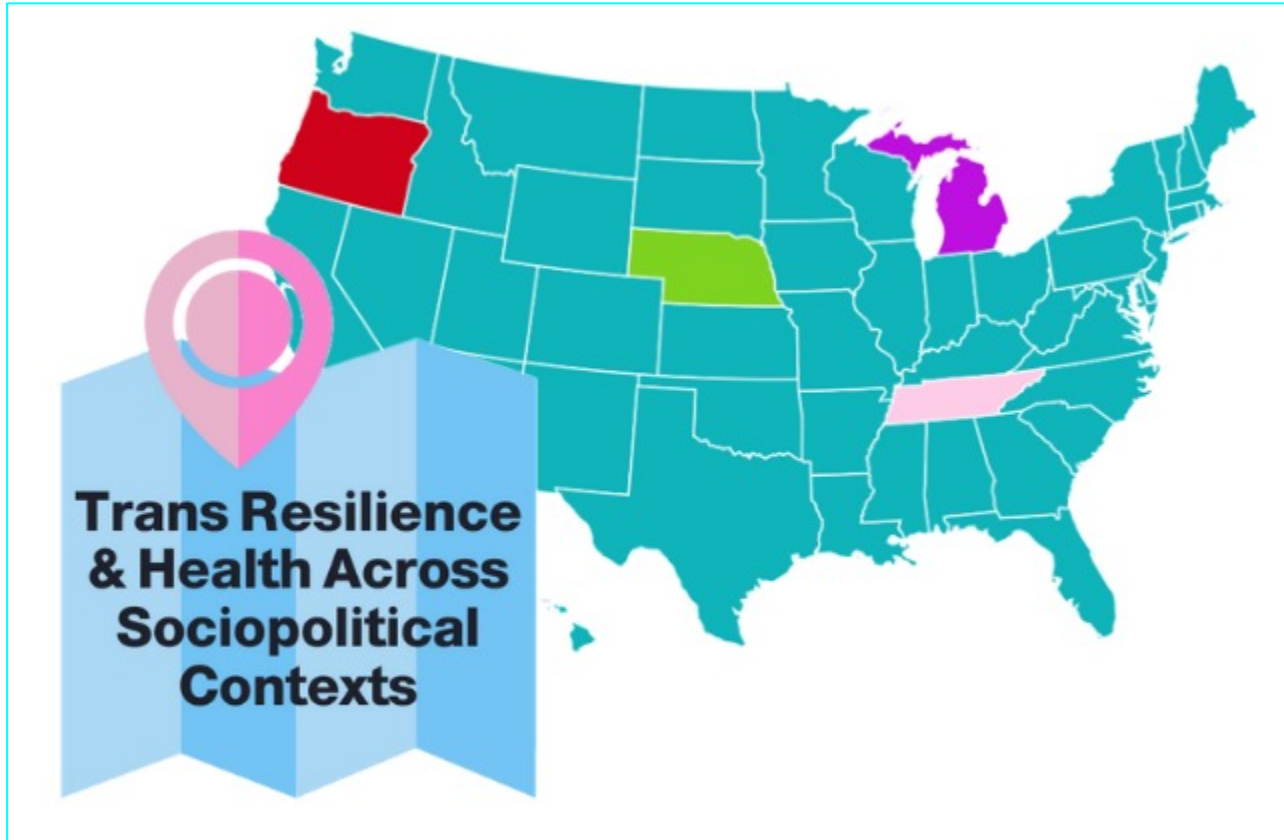
Allostatic load

Edited by Błażej Misiak, Robert Paul Juster

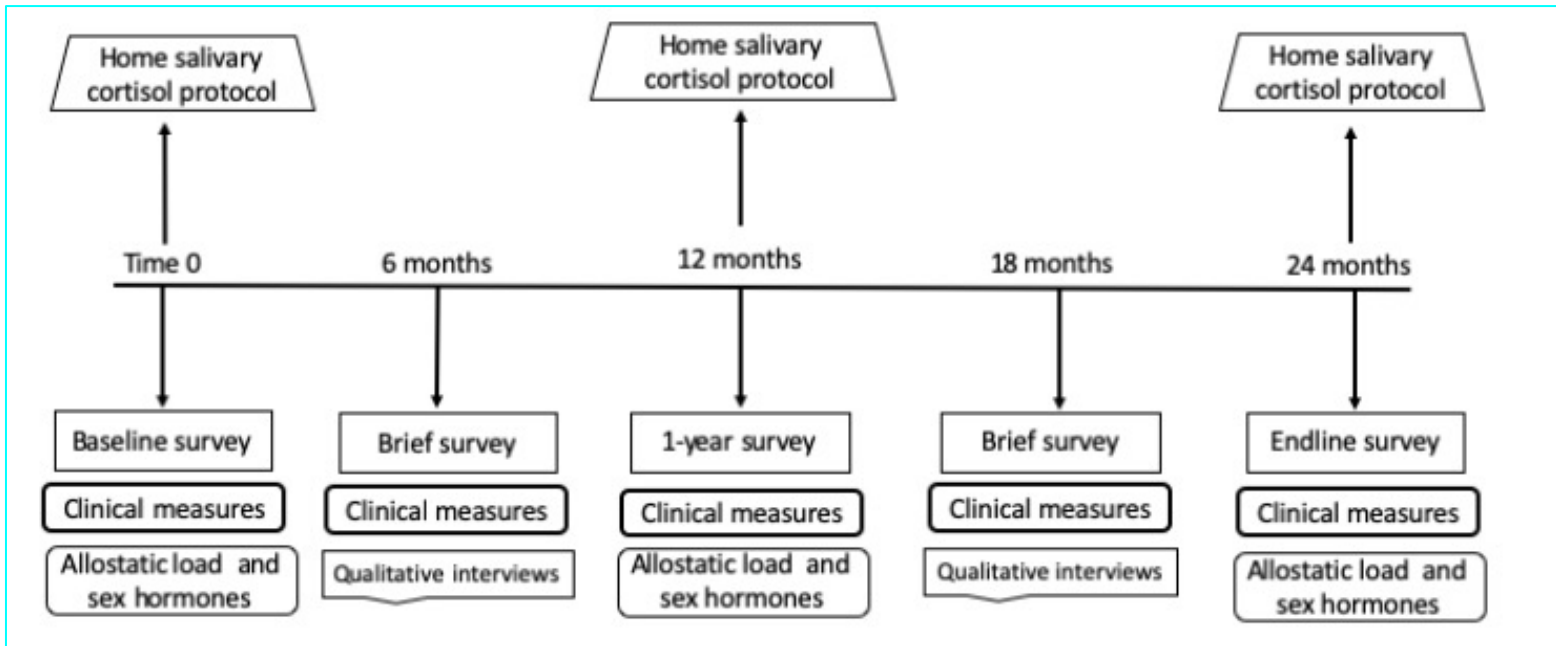
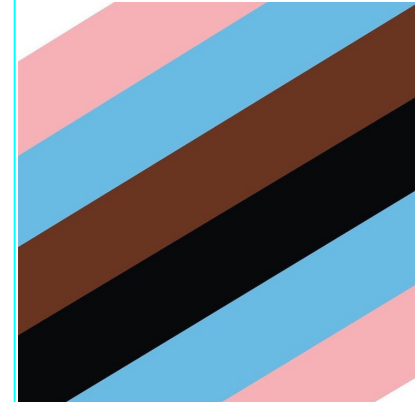
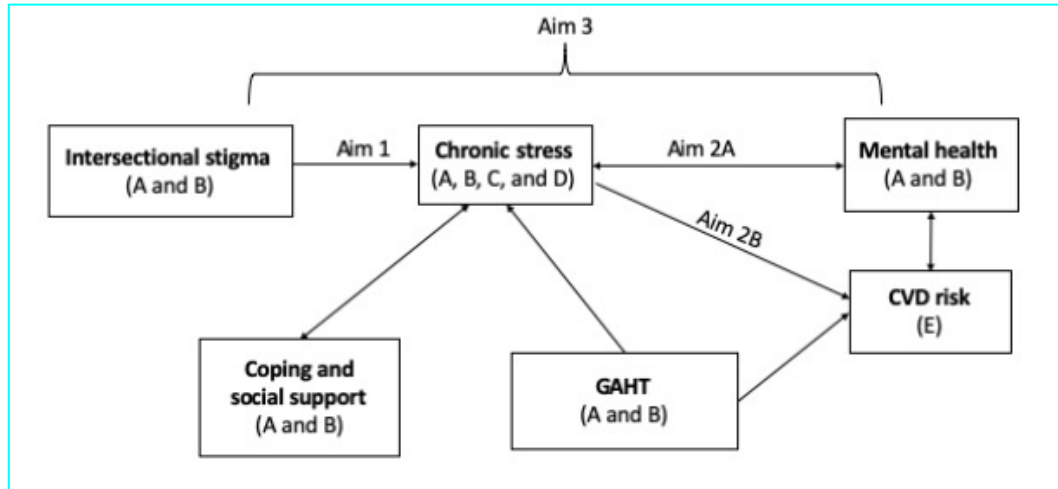
Last update 24 October 2022



Puckett, DuBois, Hope, Mocarski, & Juster – SPC



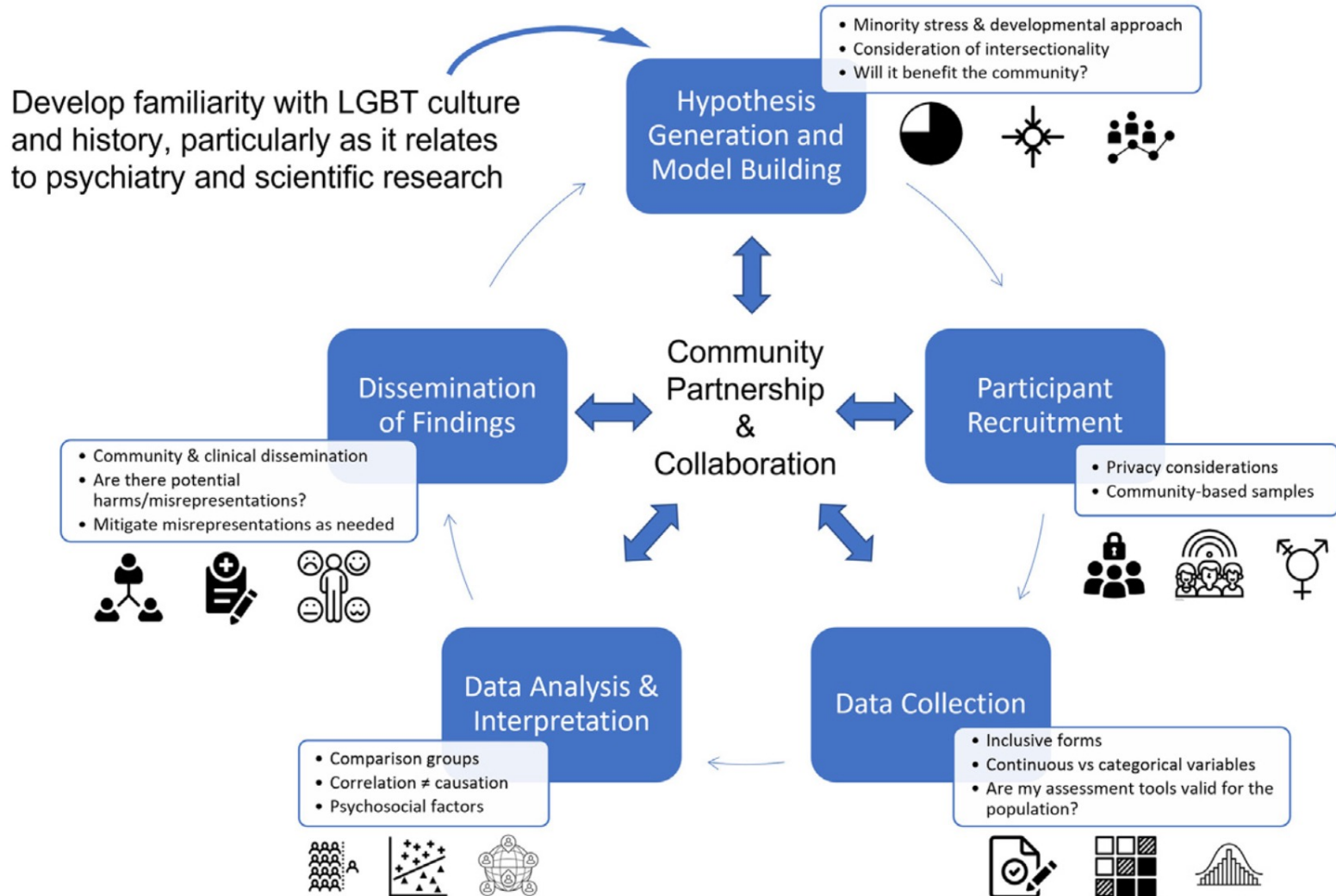
Poteat et al. – LITE Plus (R01MD013498)





**Nos études et directions
futures**

Stratégies pour la recherche en partenariat avec la communauté LGBTQ+



Entrevue sur le stress, la résilience et la cognition des personnes trans*



social important
stigma affecte cause possibilité
études parents projet
méthodes nous changer famille participer
donner cognitions sport stratégies
informations santé mentale livre population
trans coping sens environnement penser
genre santé confidentialité soi société équipe
capacités corps support savoir essayer physique
questions personnes être capable
bien-être autres lien travail sommeil communauté
rejet peur passé processus mesurer cortisol groupe
données confinement aide psychologique chercher maison stress
besoins contrôle recherche parler résilience
vie pouvoir quotidien résultats sentir mesure argent
accès vie mécanismes d'adaptation consommation
pandémie monde médecin possible

Chaire en science du sexe et du genre – Le bien-être et la résilience des LGBTQI2S+



CIHR IRSC

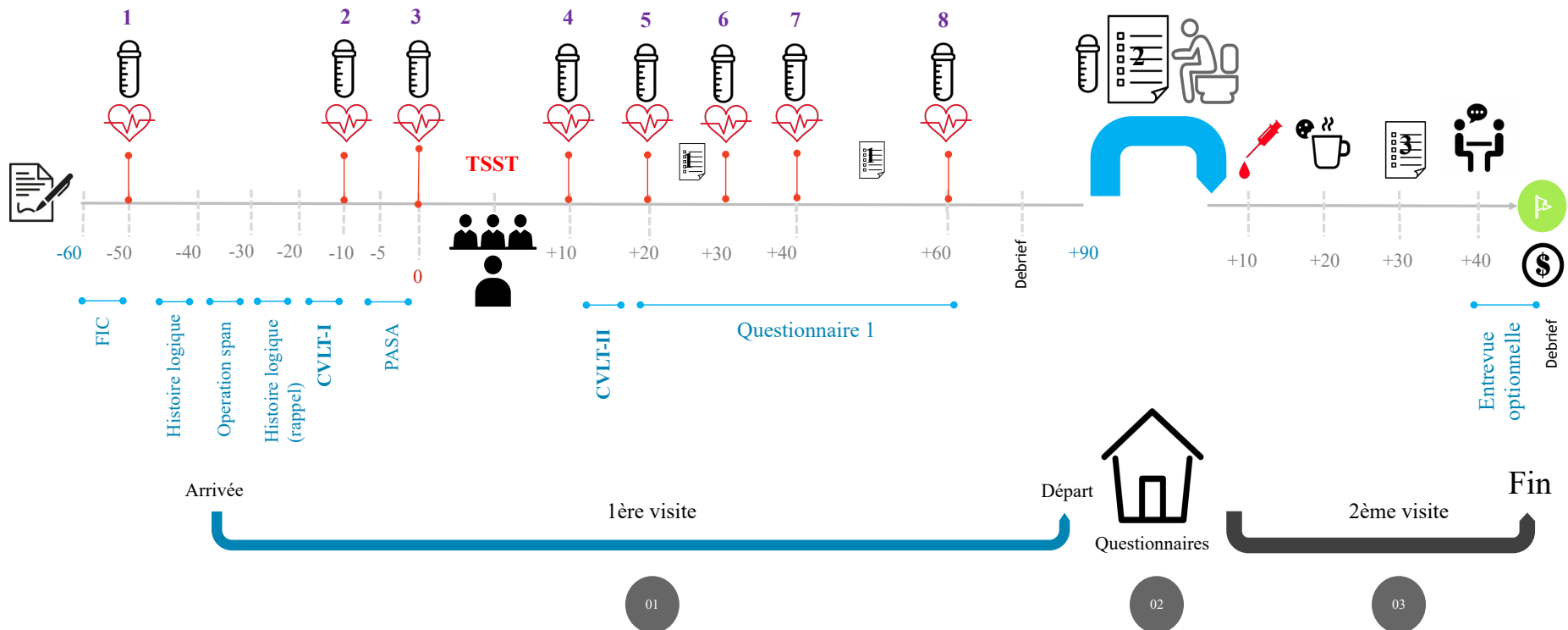


Canadian Institutes of Health Research
Institut de recherche en santé du Canada

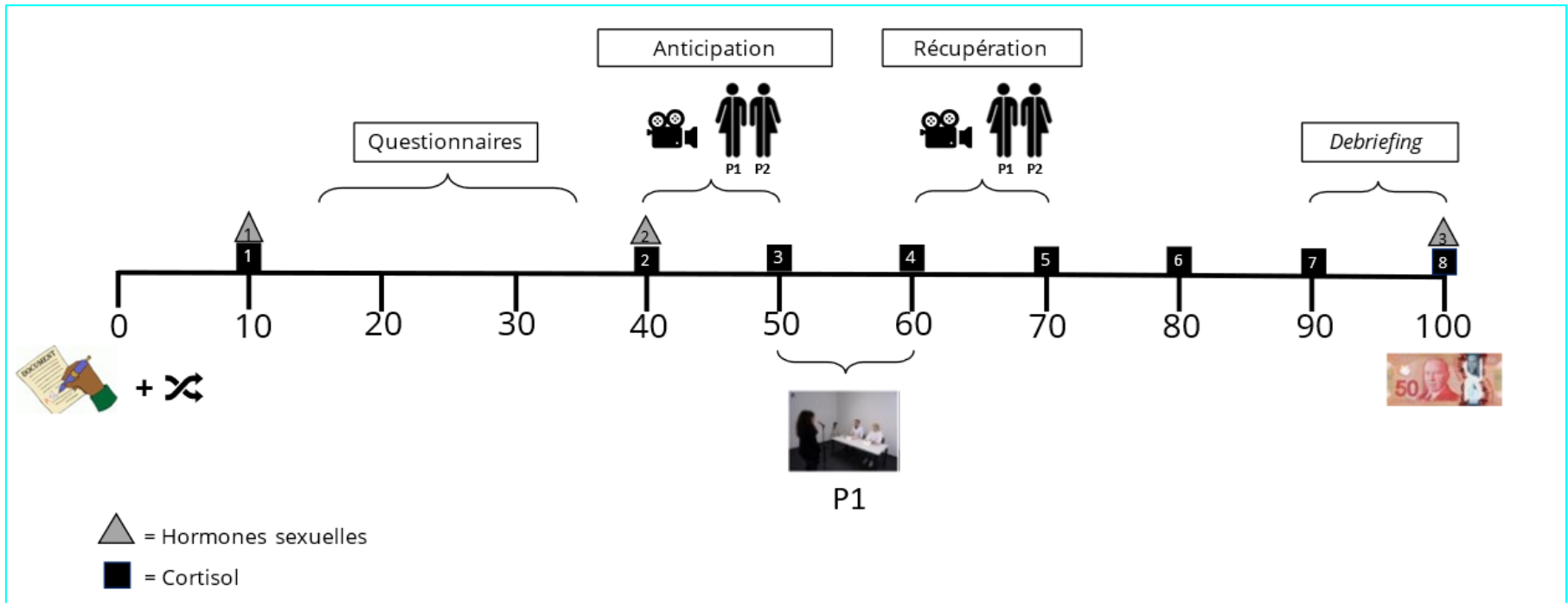
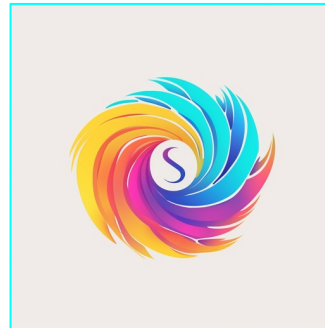
Protocole de l'étude STARS – STress And Resilience Study



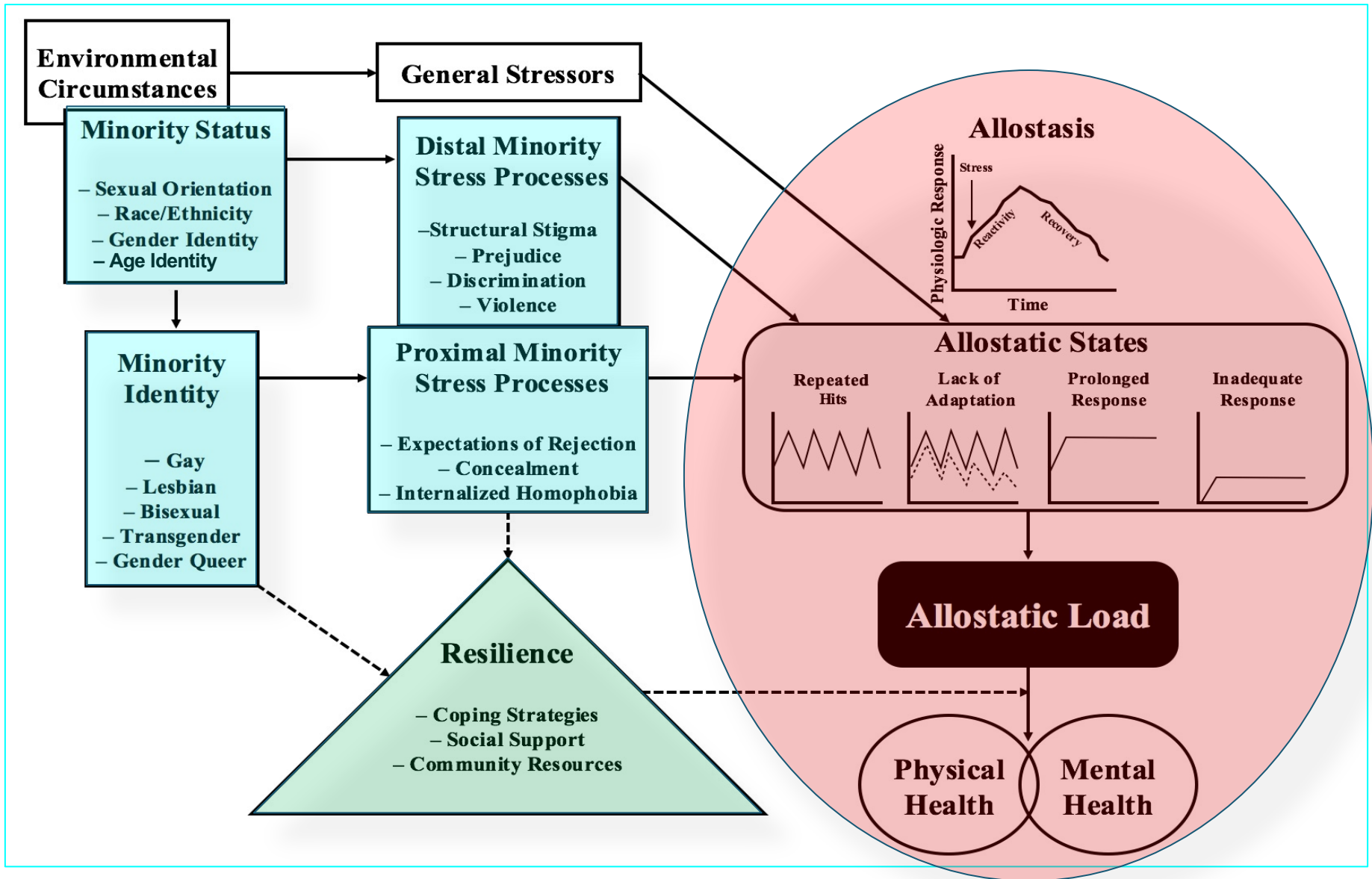
Feuille de route du participant STARS



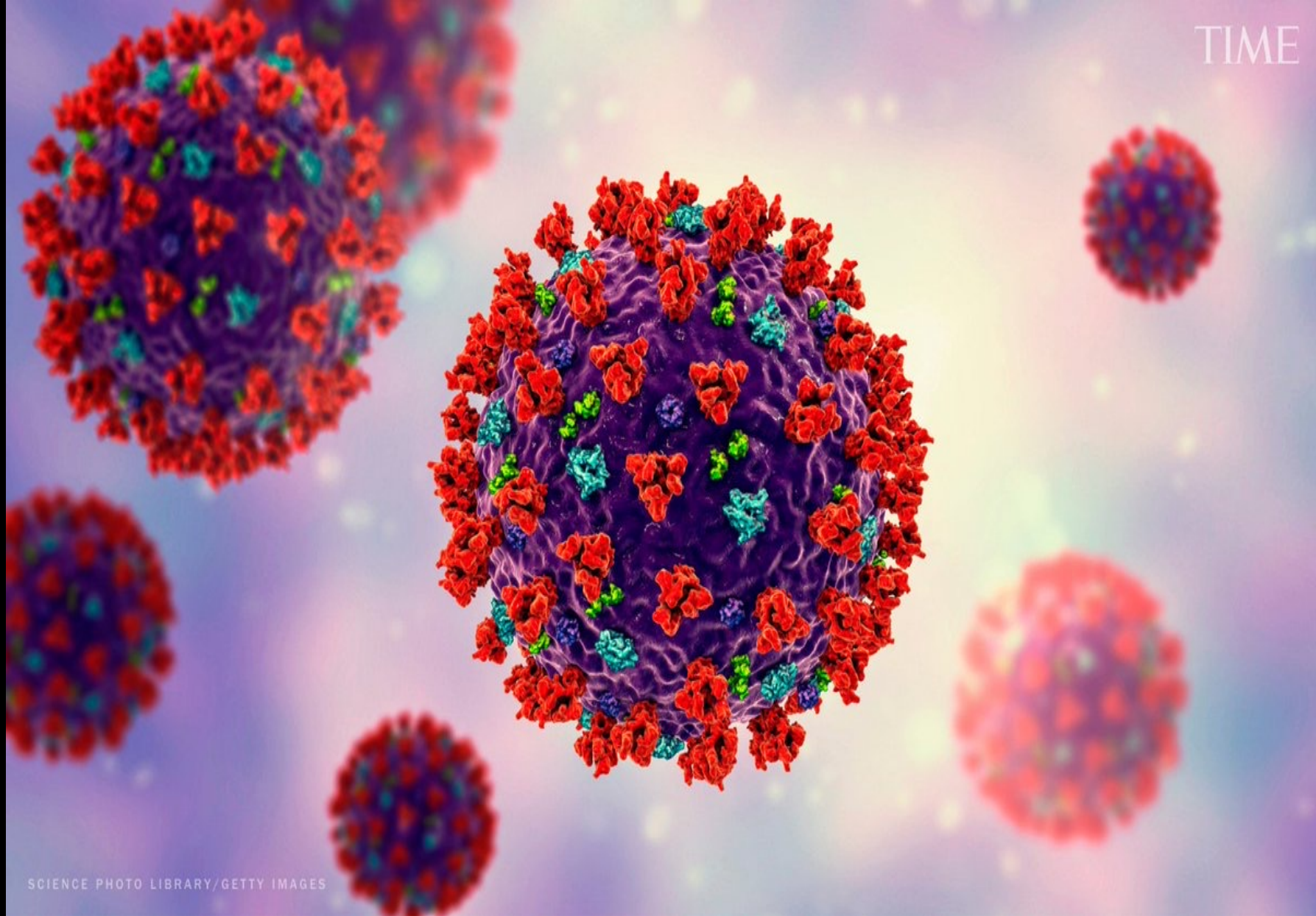
Protocole de l'étude SYNC – Silke Jacmin-Park & Sophie Bergeron



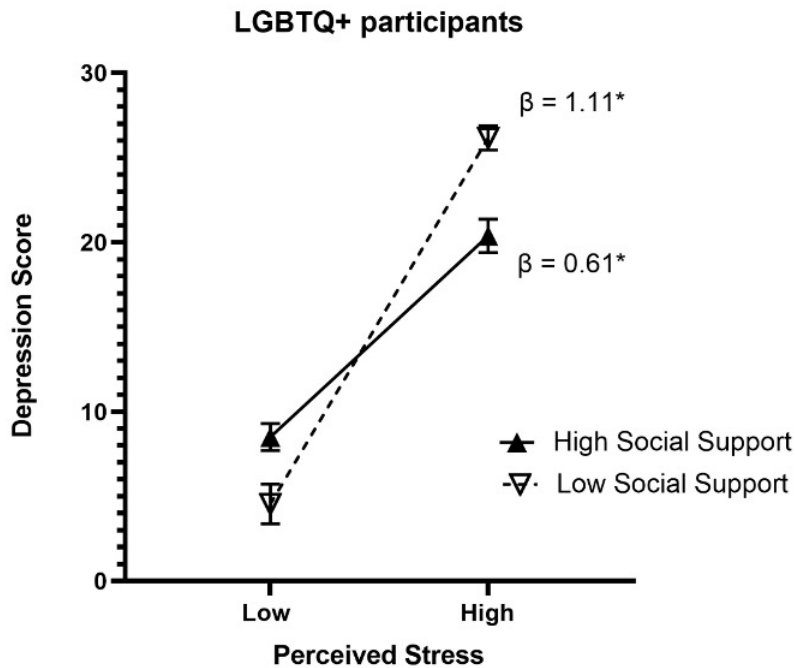
Comment le stigma « passe sous la peau et le crâne »



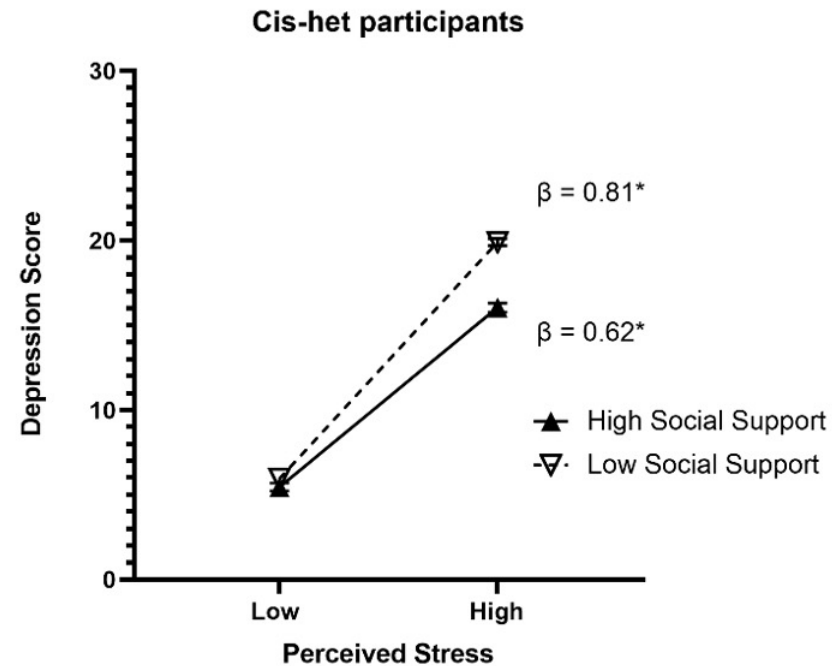
TIME



Effet tampon du support social contre la détresse et la dépression pendant les premiers mois de pandémie COVID-19



$p < .001, \Delta R^2 = 0.041$



$p < .001, \Delta R^2 = 0.010$

L

Lesbian

A woman who is primarily attracted to women.

G

Gay

A man who is primarily attracted to men; sometimes a broad term for individuals primarily attracted to the same sex.

B

Bisexual

An individual attracted to people of their own and opposite gender.

T

Transgender

A person whose gender identity differs from their assigned sex at birth.

T

Transsexual

An outdated term that originated in the medical and psychological communities for people who have permanently changed their gender identity through surgery and hormones.

Q

Queer

An umbrella term to be more inclusive of the many identities and variations that make up the LGBTQ+ community.

Q

Questioning

The process of exploring and discovering one's own sexual orientation, gender identity and/or gender expression.

I

Intersex

An individual whose sexual anatomy or chromosomes do not fit with the traditional markers of "female" and "male."

A

Ally

Typically a non-queer person who supports and advocates for the queer community; an individual within the LGBTQ+ community can be an ally for another member that identifies differently than them.

A

Asexual

An individual who generally does not feel sexual desire or attraction to any group of people. It is not the same as celibacy and has many sub-groups.

P

Pansexual

A person who experiences sexual, romantic, physical and/or spiritual attraction to members of all gender identities/expressions, not just people who fit into the standard gender binary.



Remerciements et collaborateurs

Mentors Post-Doc

Walter Bockting
Anke Ehrhardt
Mark Hatzenbuehler

Superviseurs Doc

Sonia Lupien
Jens Pruessner

Superviseur Bacc

Jennifer McGrath

Collègues de laboratoire

Nadia Durand
Helen Findlay
Catherine Raymond
Shireen Sindi
Nathalie Wan

Infirmières

Mimi Dumont
Carole Feltrin
Louise Normandeau
Soaud Lahlafi

Assistant(e)s

Olivier Bourdon
Alexandra Desrochers
Émilie Ouellet
Andrea Perna

Collaborateurs nationaux

Daniel Almeida
Christopher Cardoso
Bianca D'Antono
Marie-Claude Delesle
Annie Duchesne
Gillian Einstein
Philip Jai Johnson
Marie-France Marin
Adrianna Mendrek
Jim Pfaus
Jennifer Russell
Valérie Tourjman

Collaborateurs internationaux

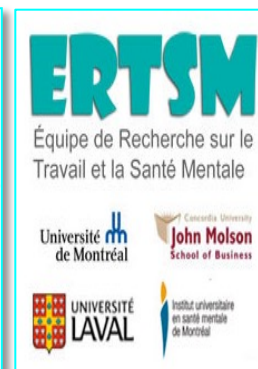
Maximus Berger (AUS)
Elizabeth Brondolo (USA)
L. Zachary DuBois (USA)
Stephanie Cook (USA)
Vickie Mays (USA)
Bruce McEwen (USA)
Martin Picard (USA)
Tonia Poteat (USA)
Theodorus Sandfort (USA)
Zoltan Sarnyai (AUS)
Richard Sloan (USA)
Nathan Grant Smith (USA)
J. Souza-Talarico (BRA)

Organismes subventionnaires

Subvention de fonctionnement

Bourses doctorales

Bourses postdoctorales



Centre d'études sur le sexe*genre, l'allostasie, et la résilience (CESAR)



Financements du CESAR



facebook

'CESAR Lab'

The screenshot shows the Facebook search results for 'CESAR Lab'. The search bar at the top contains 'CESAR Lab'. The search results are displayed in a grid format. The first result is the profile of 'CESAR Lab', a scientist with 617 followers. Below the profile is a post from Robert-Paul Juster, dated June 6 at 5:08 PM. The post text reads: 'Le laboratoire CESAR Lab est très fier, honoré et reconnaissant que nos étudiants Silke Jacmin-Park, Louis Cartier, Mina Guérin, Renaud Dufour, et Inès Alt Abdelmalek aient tous reçu un soutien provincial du FRQ ainsi que certains d'entre eux qui ont également reçu un soutien fédéral. Notre directeur Robert-Paul Juster a également obtenu un Junior 2 du FRQS pour son programme de recherche intitulé "Sexe*genre et la charge allostatique : Des communautés aux cliniques".' Below the text is a grid of six student portraits: Robert-Paul Juster, Mina Guérin, Renaud Dufour, Silke Jacmin-Park, Louis Cartier, and Inès Alt Abdelmalek. Each portrait has a 'Félicitations' badge. At the bottom of the post, it says 'You and 37 others' and shows 5 comments and 6 shares.

twitter

'@Rob_Paul_Juster'

The screenshot shows the Twitter profile of Robert-Paul Juster (@Rob_Paul_Juster). The profile header includes the name 'Robert-Paul Juster' and the handle '@Rob_Paul_Juster'. Below the header is a bio: 'Neuroscientist, Stress & Resilience Researcher, Université de Montréal Prof in Psychiatry & Addiction, CIHR Sex & Gender Chair, LGBTQIA2S+ Advocate 🏳️‍🌈, he/it'. The profile also shows '1,061 Tweets', '1,875 Following', and '776 Followers'. The navigation menu on the left includes Home, Explore, Notifications, Messages, Lists, Bookmarks, Communities, Verified, Profile, and More. The main content area shows a tweet from 'PNAS Nexus @PNASNexus' dated Jun 14. The tweet text is: 'An analysis of every tweet published by presidential candidates during the 2016 and 2020 US primaries found that Democrats tended to emphasize justice, while Republicans often emphasized in-group loyalty and respect for social hierarchies. In PNAS Nexus: ow.ly/8Zwu50005QA'. Below the text are two network diagrams, A and B, showing relationships between candidates. Diagram A shows a network of candidates from the 2016 US primaries, including Trump, Sanders, Clinton, Cruz, Bush, and Huckabee. Diagram B shows a network of candidates from the 2020 US primaries, including Trump (2016), Warren (2020), Biden (2020), and Kasich (2016). A legend at the bottom indicates that red dots represent 2016 Republican Candidates, blue dots represent 2016 Democratic Candidates, and purple dots represent 2020 Democratic Candidates.