

Symptômes persistants post-infectieux : problématique et approche du patient

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Déclaration de liens d'intérêt avec les industries de santé en rapport avec le thème de la présentation (loi du 04/03/2002) :

Intervenant : Cathébras, Pascal

Titre : Symptômes persistants post-infectieux

- OUI NON
- OUI NON
- OUI NON
- OUI NON



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Idées et débats

« COVID long » : une opportunité pour approcher la complexité des syndromes fonctionnels post-infectieux



“Long-haul COVID”: An opportunity to address the complexity of post-infectious functional syndromes

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Long COVID: An opportunity to focus on post-acute infection syndromes



Despite knowledge of [post-acute infection syndromes](#)—characterised by similar symptoms that develop after an acute viral, bacterial, or parasitic infection—long COVID was not acknowledged by the medical and scientific community until almost 6 months after the start of the pandemic. This was achieved largely thanks to the persistent advocacy of people with long COVID,

The development of diagnostic markers and effective therapeutic options for people with post-acute infection syndromes pose three major challenges. The first challenge is that the pathophysiology of such syndromes is not clearly understood. Different hypotheses have emerged, including chronic inflammation, autoimmune response, permanent tissue damage, dysregulation of the



The Lancet Regional
Health - Europe
2022;22: 100540
<https://doi.org/10.1016/j.lanepe.2022.100540>

Plan

1. Problématiques générales des symptômes « médicalement inexplicables »
2. Les syndromes post-infectieux sont-ils des syndromes somatiques fonctionnels comme les autres ?
3. Approche du patient présentant un syndrome fonctionnel (post-infectieux)

1. Problématiques générales des symptômes « médicalement inexpliqués »

Les troubles fonctionnels : une souffrance paradoxale chez le patient et le médecin



Les pièges de la nosologie et le danger des étiquettes diagnostiques



- Symptômes fonctionnels
- Symptômes médicalement inexplicables
- Somatisation
- Troubles somatoformes (DSM-III et DSM-IV)
- Troubles à symptomatologie somatique (DSM-5)
- Syndromes somatiques fonctionnels
- Syndrome de détresse somatique
- Troubles somatiques fonctionnels

« Les mots, précis et faux, plaqués sur le monde, nous font monter le sang à la tête. »

Alice Ferney (Les autres)

Trouble à symptomatologie somatique (DSM-5)

Somatic Symptom Disorder

300.82 (F45.1)

- A. One or more somatic symptoms that are distressing or result in significant disruption of daily life.
- B. Excessive thoughts, feelings, or behaviors related to the somatic symptoms or associated health concerns as manifested by at least one of the following:
 - 1. Disproportionate and persistent thoughts about the seriousness of one's symptoms.
 - 2. Persistently high level of anxiety about health or symptoms.
 - 3. Excessive time and energy devoted to these symptoms or health concerns.
- C. Although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (typically more than 6 months).

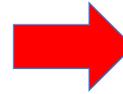
Specify if:

With predominant pain (previously pain disorder): This specifier is for individuals whose somatic symptoms predominantly involve pain.

Specify if:

Persistent: A persistent course is characterized by severe symptoms, marked impairment, and long duration (more than 6 months).

Specify current severity:



Les symptômes ne sont pas nécessairement « médicalement inexpliqués »



Des critères psycho-comportementaux sont requis pour le diagnostic

Syndromes somatiques fonctionnels

- Catégories « résiduelles » des *somaticiens* (un ou plusieurs SSF par spécialité médicale) ;
- Définies par :
 - (1) le ou les *symptômes prédominants* (fibromyalgie, intestin irritable, syndrome de fatigue chronique, troubles neurologiques fonctionnels, douleurs thoraciques non cardiaques, etc.) ;
 - *ou* (2) par une *physiopathologie plausible* (syndrome d'hyperventilation) ;
 - *ou parfois* (3) par une *attribution causale contestée* (encéphalomyélite myalgique, maladie de Lyme chronique, électrohypersensibilité, etc.) ;
- Des critères diagnostiques plus ou moins consensuels existent ;
- Leur diagnostic est *positif* (et pas seulement d'exclusion) et *n'exclut pas la présence d'une pathologie organique associée*. Mais cette association, loin d'être rare, est très difficile à gérer par les médecins, éduqués dans une perspective fondamentalement dualiste.

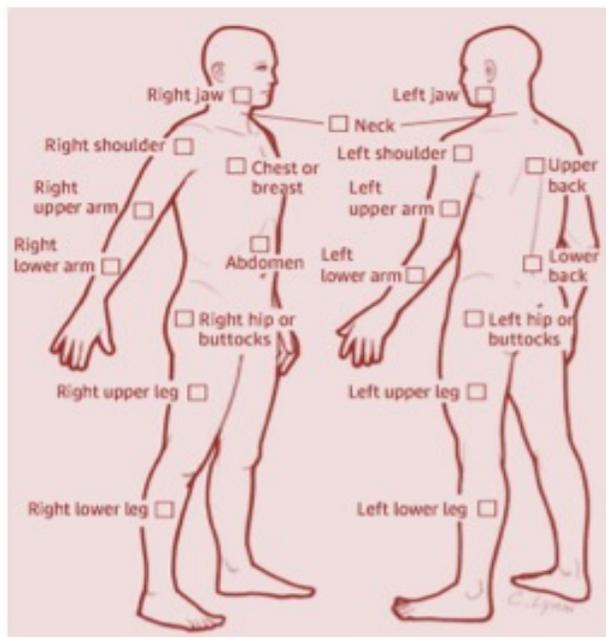
Syndrome fibromyalgique

Diagnostic de fibromyalgie : critères 2016¹

A. Les symptômes évoluent depuis **au moins 3 mois**

B. Douleur diffuse :

B1 : Index de douleur diffuse = WPI = Comptez le nombre de sites douloureux au cours des 7 derniers jours (0-19) :



B2 : La douleur concerne au moins 4 régions sur 5* (MSD, MSG, MID, MIG, rachis)

** mâchoire, thorax et abdomen ne sont pas à prendre en compte*

C. Echelle de sévérité des symptômes = SSS (0-12)

C1 : Pour chacun des symptômes suivants, notez leur sévérité au cours des 7 derniers jours :

	Pas de problème	Problème léger	Problème important	Problème sévère
	0	1	2	3
Fatigue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Troubles cognitifs*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sommeil non réparateur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

** troubles de mémoire ou de concentration*

C2 : Au cours des 6 derniers mois, le patient a-t-il souffert des symptômes suivants ?

	non	oui
Douleurs abdominales basses	<input type="checkbox"/> 0	<input type="checkbox"/> 1
Céphalées	<input type="checkbox"/> 0	<input type="checkbox"/> 1
Humeur dépressive	<input type="checkbox"/> 0	<input type="checkbox"/> 1

Calculez le **score SSS** (0-12) :

D. Si vous estimez que d'autres pathologies que la fibromyalgie contribuent aux douleurs et à la symptomatologie, notez-les ici (ce ne sont pas des critères d'exclusion) :

E. Retenez le **diagnostic de fibromyalgie** si **WPI ≥ 7 et SSS ≥ 5** ou **WPI = 4-6 et SSS ≥ 9**

F. **WPI + SSS = score de sévérité de la fibromyalgie (FS scale)** :

Syndrome de fatigue chronique

	TABLEAU 1	Critères Fukuda CDC 1994 pour le syndrome de fatigue chronique	
--	------------------	---	--

CDC: Centers for disease control and prevention.

1. Epuisement chronique inexplicé, constaté cliniquement, persistant ou récurrent, et constituant un état nouveau dans la vie du patient (il ne s'agit pas d'une fatigue ressentie tout au long de la vie), qui ne résulte pas d'efforts prolongés, qui n'est pas soulagé par le repos, et qui se traduit par une réduction significative des activités professionnelles, scolaires, sociales ou domestiques

2. Manifestation combinée de **quatre au moins** des symptômes suivants, chacun d'eux ayant persisté de manière continue ou récurrente durant au moins six mois consécutifs sans avoir précédé la fatigue

- Dégradation sévère de la **mémoire** à court terme ou de la **concentration** entraînant une réduction drastique des activités antérieures dans les domaines professionnel, scolaire, social, domestique ou personnel
- **Maux de gorge**
- Sensibilité des **ganglions** lymphatiques cervicaux ou axillaires
- **Douleurs** musculaires
- **Douleurs articulaires** sans enflure ni rougeur
- **Maux de tête** d'un type nouveau, diffus ou sévères
- **Sommeil non réparateur**
- **Malaise durant plus de 24 heures après effort**

Syndrome de fatigue chronique

	TABLEAU 3	Critères IOM 2015 de l'intolérance systémique à l'effort (ISE)	
--	------------------	---	--

IOM: Institute of Medicine.

¹ la fréquence et la sévérité de ces plaintes doivent être précisées. Le diagnostic d'ISE doit être remis en question si les patients n'ont pas ces symptômes au moins la moitié du temps, avec une intensité moyenne, importante ou sévère

Présence des trois symptômes suivants	<ul style="list-style-type: none">• Réduction substantielle du taux d'activités professionnelle, sociale, familiale, personnelle par rapport à la période prémorbide, qui persiste plus de six mois, et accompagnée d'une fatigue souvent profonde, nouvelle ou à début bien défini, qui n'est pas consécutive à des efforts excessifs et n'est pas soulagée par le repos• Malaise posteffort¹• Sommeil non réparateur¹
Présence d'au moins un des deux symptômes suivants	<ul style="list-style-type: none">• Plaintes cognitives¹• Intolérance à l'orthostatisme

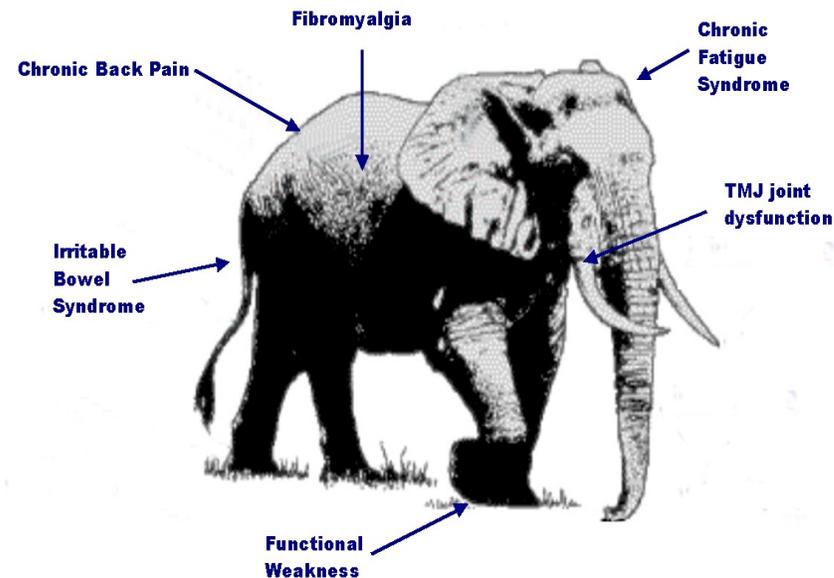
Functional somatic syndromes: one or many?

THELANCET • Vol 354 • September 11, 1999

S Wessely, C Nimnuan, M Sharpe

We review the concept and importance of functional somatic symptoms and syndromes such as irritable bowel syndrome and chronic fatigue syndrome. On the basis of a literature review, we conclude that a substantial overlap exists between the individual syndromes and that the similarities between them outweigh the differences. Similarities are apparent in case definition, reported symptoms, and in non-symptom association such as patients' sex, outlook, and response to treatment. We conclude that the existing definitions of these syndromes in terms of specific symptoms is of limited value; instead we believe a dimensional classification is likely to be more productive.

BRITISH JOURNAL OF PSYCHIATRY (2004), 185, 95-96



There is only one functional somatic syndrome*

SIMON WESSELY / PETER D. WHITE



Contents lists available at SciVerse ScienceDirect

Journal of Psychosomatic Research

“Functional somatic syndromes, one or many?”: An answer by cluster analysis

Tamara Lacourt*, Jan Houtveen, Lorenz van Doornen

Clinical and Health Psychology, Utrecht University, The Netherlands

Syndrome de détresse somatique

- Diagnostic empiriquement défini qui permet de regrouper sous une seule catégorie « parapluie » la plupart des SSF et des troubles somatoformes.



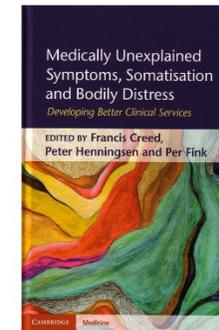
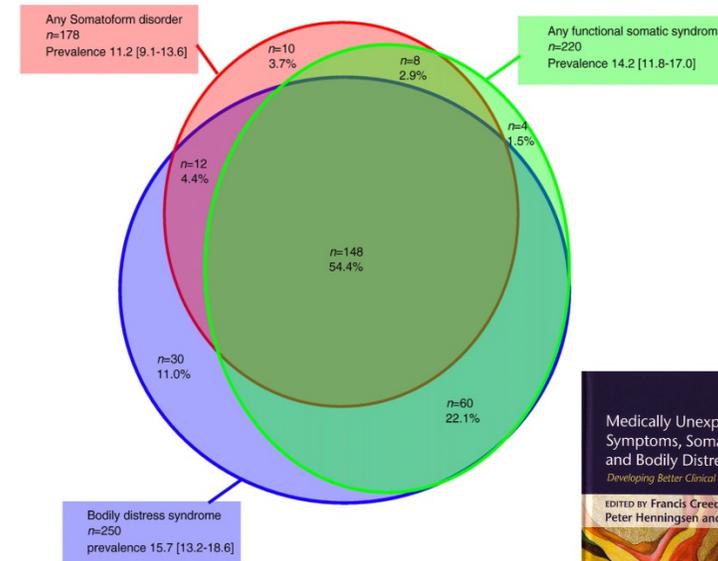
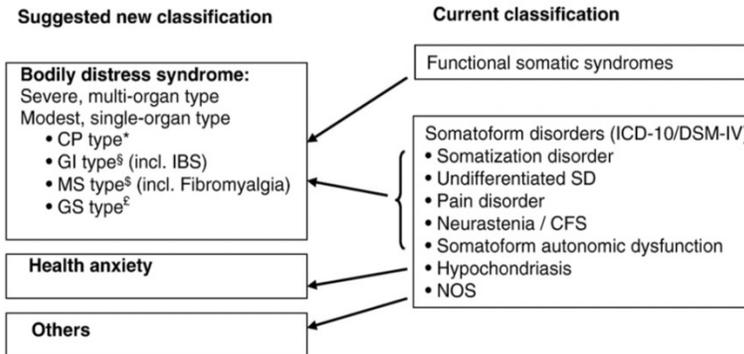
Journal of Psychosomatic Research 68 (2010) 415–426



One single diagnosis, bodily distress syndrome, succeeded to capture 10 diagnostic categories of functional somatic syndromes and somatoform disorders

Per Fink*, Andreas Schröder

The Research Clinic for Functional Disorders and Psychosomatics, Aarhus University Hospital, Aarhus, Denmark



- Adopté par l'OMS pour la CIM-11.

Troubles somatiques fonctionnels

Burton et al. *BMC Medicine* (2020) 18:34
<https://doi.org/10.1186/s12916-020-1505-4>

BMC Medicine

OPINION

Open Access

Functional somatic disorders: discussion paper for a new common classification for research and clinical use



Christopher Burton^{1*}, Per Fink², Peter Henningsen³, Bernd Löwe⁴, Winfried Rief⁵ and Euronet-SOMA Group

Abstract

Background: Functional somatic symptoms and disorders are common and complex phenomena involving both bodily and brain processes. They pose major challenges across medical specialties. These disorders are common and have significant impacts on patients' quality of life and healthcare costs.

Main body: We outline five problems pointing to the need for a new classification: (1) developments in understanding aetiological mechanisms; (2) the current division of disorders according to the treating specialist; (3) failure of current classifications to cover the variety of disorders and their severity (for example, patients with symptoms from multiple organs systems); (4) the need to find acceptable categories and labels for patients that promote therapeutic partnership; and (5) the need to develop clinical services and research for people with severe disorders.

We propose 'functional somatic disorders' (FSD) as an umbrella term for various conditions characterised by persistent and troublesome physical symptoms. FSDs are diagnosed clinically, on the basis of characteristic symptom patterns. As with all diagnoses, a diagnosis of FSD should be made after considering other possible somatic and mental differential diagnoses. We propose that FSD should occupy a neutral space within disease classifications, favouring neither somatic disease aetiology, nor mental disorder. FSD should be subclassified as (a) multisystem, (b) single system, or (c) single symptom. While additional specifiers may be added to take account of psychological features or co-occurring diseases, neither of these is sufficient or necessary to make the diagnosis. We recommend that FSD criteria are written so as to harmonise with existing syndrome diagnoses. Where currently defined syndromes fall within the FSD spectrum – and also within organ system-specific chapters of a classification – they should be afforded dual parentage (for example, irritable bowel syndrome can belong to both gastrointestinal disorders and FSD).

Conclusion: We propose a new classification, 'functional somatic disorder', which is neither purely somatic nor purely mental, but occupies a neutral space between these two historical poles. This classification reflects both emerging aetiological evidence of the complex interactions between brain and body and the need to resolve the historical split between somatic and mental disorders.

La valence morale du dualisme et la question de la « légitimité médicale » des symptômes

- Un symptôme « médicalement inexpliqué » ou « fonctionnel » est toujours considéré comme « moins réel », automatiquement « psychogène » voire « imaginaire », et peu ou prou sous la responsabilité de l'individu, qui peut donc implicitement (et parfois explicitement) en être blâmé. Le diagnostic transforme, d'une certaine façon, la victime en coupable.
- D'où la quête désespérée de « légitimité médicale » recherchée parfois plus activement qu'un soulagement par certains patients.

La « société des victimes » ? combats pour la légitimité, revendication de l'invalidité

FIBROMYALGIE: Handicap Reel!!

SPINE Volume 21, Number 20, pp 2397-2400
© 1996, Lippincott-Raven Publishers

If You Have to Prove You Are Ill, You Can't Get Well

The Object Lesson of Fibromyalgia

Nortin M. Hadler, MD

Don't You Don't Look Sick!
"The Invisible Pain of Fibromyalgia"

il est Temps d'Agir!!

Validite 2015

2. Les syndromes post-infectieux sont-ils des syndromes somatiques fonctionnels comme les autres ?

Syndromes (de fatigue) post-infectieux

Table 1 | Overview of unexplained PAISs associated with documented infections

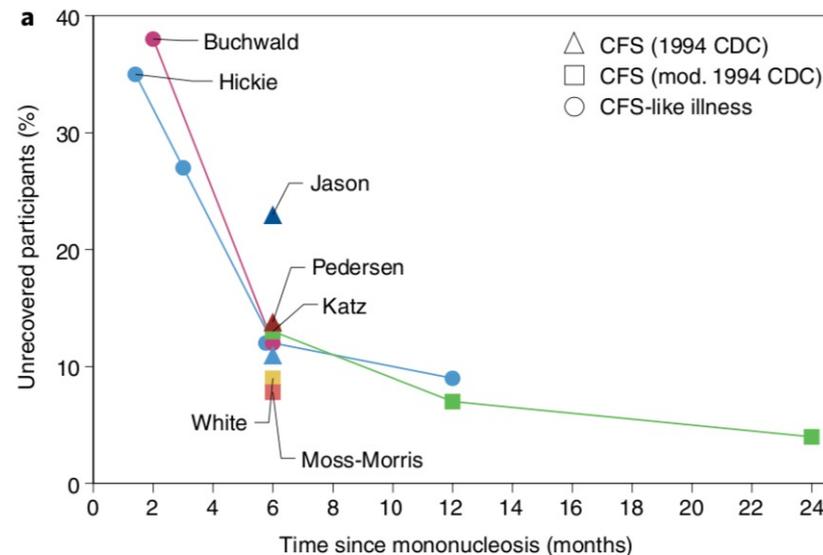
Pathogen	Name of PAIS
Viral pathogens	
SARS-CoV-2	Post-acute sequelae of SARS-CoV-2 infection (PASC) Post-acute COVID-19 syndrome (PACS) Long COVID
Ebola	Post-Ebola syndrome (PES) Post-Ebola virus disease syndrome (PEVDS)
Dengue	Post-dengue fatigue syndrome (PDFS)
Polio	Post-polio syndrome (PPS)
SARS	Post-SARS syndrome (PSS)
Chikungunya	Post-chikungunya chronic inflammatory rheumatism (pCHIK-CIR) Post-chikungunya disease
EBV	No name
West Nile virus	No name
Ross River virus ^a	No name
Coxsackie B ^a	No name
H1N1/09 influenza ^{a,b}	No name
VZV ^{a,b}	No name
Non-viral pathogens	
<i>Coxiella burnetii</i>	Q fever fatigue syndrome (QFS)
<i>Borrelia</i> ^c	Post-treatment Lyme disease syndrome (PTLDS)
<i>Giardia lamblia</i> ^{a,d}	No name

^aLimited or very limited evidence base. ^bAssociation with increased use of ME/CFS diagnosis in health registry. ^cContradicting or unclear evidence base. ^dSupporting evidence derives from a single outbreak in Norway.

Box 2 | Symptoms and signs of post-acute infection syndromes

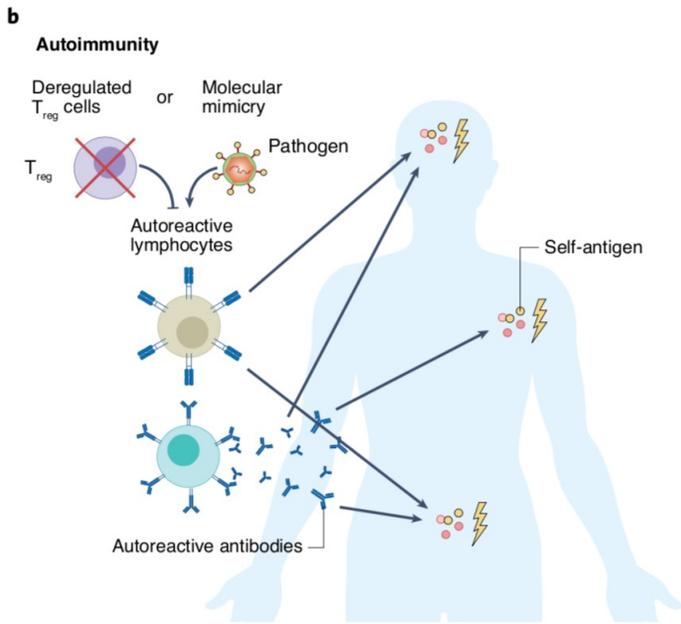
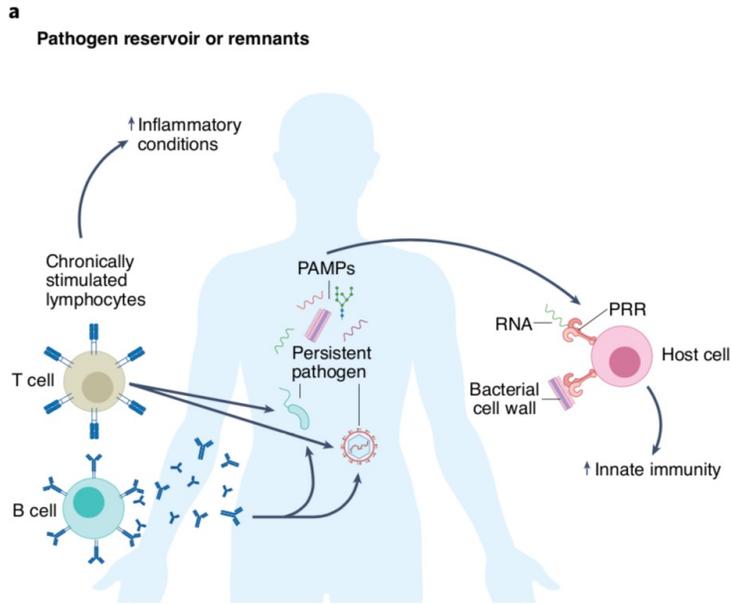
Main categories of symptoms and signs:

- Exertion intolerance, fatigue
- Flu-like and 'sickness behavior' symptoms: fever, feverishness, muscle pain, feeling sick, malaise, sweating, irritability
- Neurological/neurocognitive symptoms: brain fog, impaired concentration or memory, trouble finding words
- Rheumatologic symptoms: chronic or recurrent joint pain
- Trigger-specific symptoms: for example, eye problems post-Ebola, IBS post-*Giardia*, anosmia and ageusia post-COVID-19, motor disturbances post-polio and post-West Nile virus



Unexplained post-acute infection syndromes

Jan Choutka¹, Viraj Jansari², Mady Hornig³ and Akiko Iwasaki^{2,4,5,6}



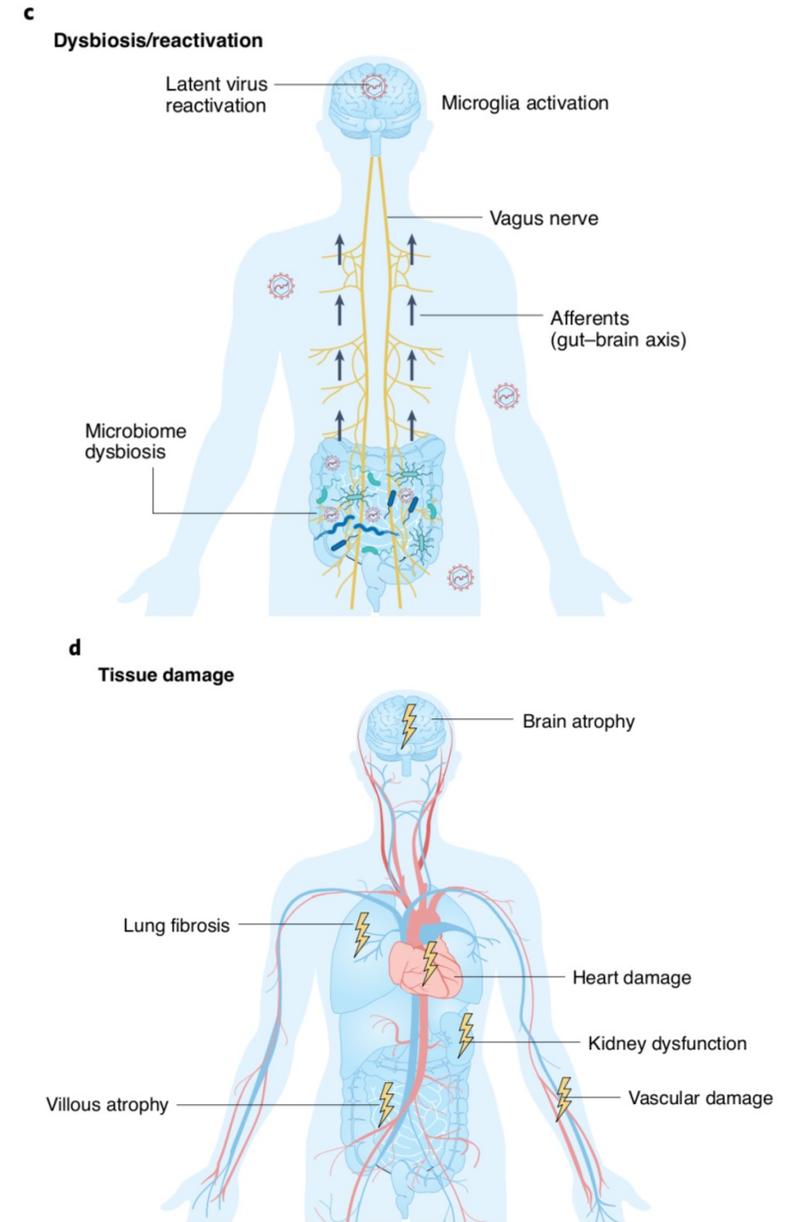
Hypothèses pathogéniques



Unexplained post-acute infection syndromes

Jan Choutka¹, Viraj Jansari², Mady Hornig³ and Akiko Iwasaki^{2,4,5,6}

- Persistance du pathogène
- Autoimmunité induite
- Dysbiose et réactivation
- Lésions tissulaires (séquelles)



Hypothèses pathogéniques

Mais aussi des facteurs
« psychosociaux », communs
aux syndromes fonctionnels et
au « Covid long »

Open Forum Infectious Diseases

REVIEW ARTICLE



Long COVID and Post-infective Fatigue Syndrome: A Review

Carolina X. Sandler,¹ Vegard B. B. Wyller,^{2,3} Rona Moss-Morris,⁴ Dedra Buchwald,⁵ Esther Crawley,⁶ Jeannine Hautvast,⁷ Ben Z. Katz,^{8,9} Hans Knoop,¹⁰ Paul Little,¹¹ Renee Taylor,¹² Knut-Arne Wensaas,¹³ and Andrew R. Lloyd^{1*}

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 **Journal of Psychosomatic Research** 

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

Editorial

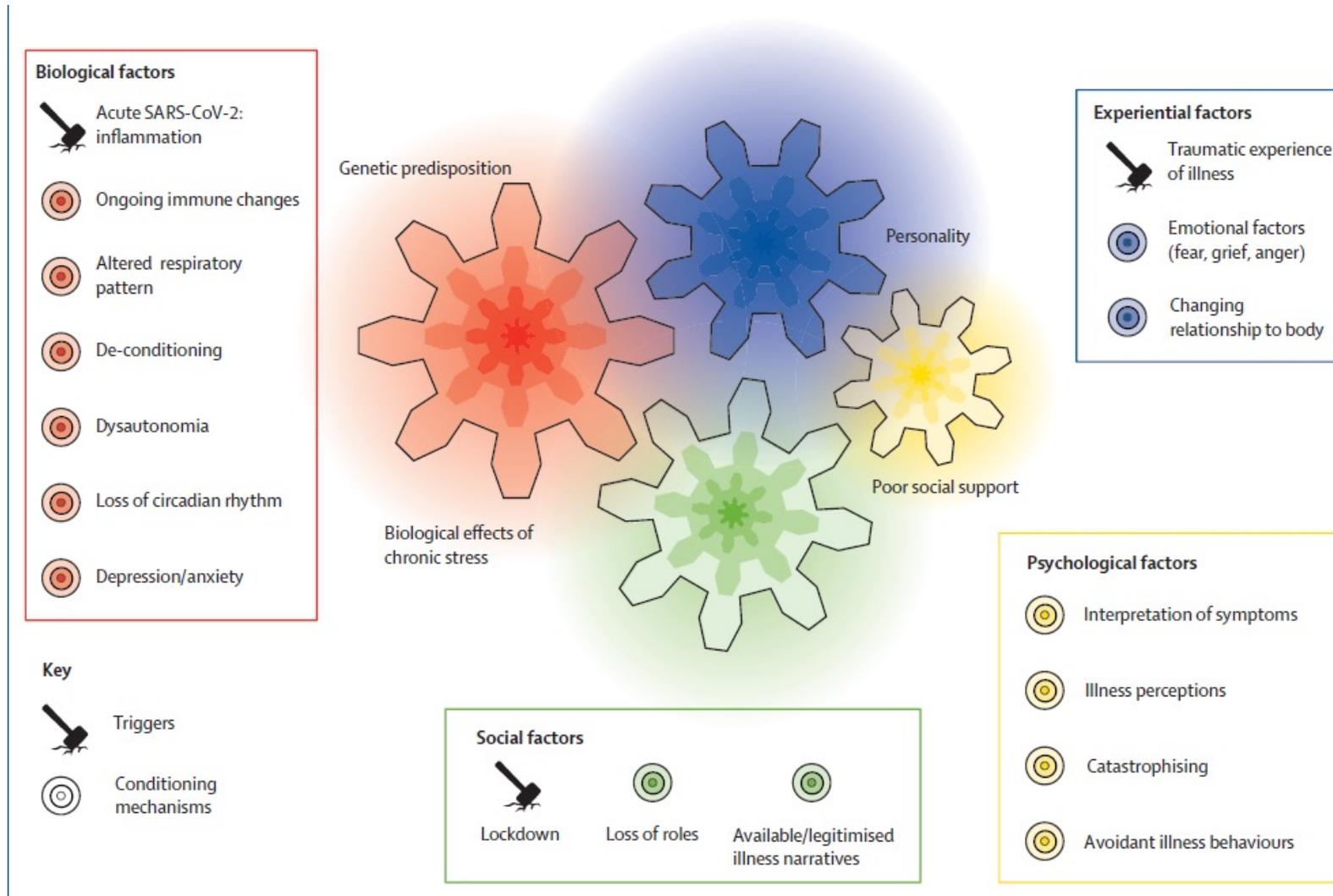
Why the hypothesis of psychological mechanisms in long COVID is worth considering



Pathophysiology

Because the pathophysiology of PIFS remains unresolved, a biopsychosocial approach to conceptualizing research approaches to idiopathic post-COVID fatigue is recommended, incorporating predisposing, precipitating, and perpetuating factors. Predisposing factors in PIFS may include genetic [45] as well as psychosocial vulnerabilities [46]. COVID-19 is the precipitating factor, but it may well act in concert with other concomitant triggers, such as distressing life events (eg, death of a relative from COVID-19, loss of employment) [47]. Perpetuating factors may include the advent of sleep disturbance [48], autonomic dysfunction with sympathetic predominance [49], endocrine disturbance with hypothalamus-pituitary-adrenal axis attenuation [50], reactive mood disorder such as depression or anxiety [51], as well as abnormal illness beliefs and behavioral changes such as activity patterns that are boom-bust or avoidant [52], resulting in a complex set of determinants of illness and disability [36]. It is likely that idiopathic post-COVID fatigue will have comparable pathophysiology to PIFS. For research investigations of the predictors or associations of post-COVID fatigue, large sample sizes and stratification by the multiple contributory variables are recommended, and careful matching by, or controlling for, these variables in case-control designs.

A new paradigm is needed to explain long COVID



The International Collaborative on Fatigue Following Infection (COFFI)

**Ben Z Katz^{1,*}, Simon M Collin², Gabrielle Murphy³, Rona Moss-Morris⁴, Vegard Bruun
Wyller⁵, Knut-Arne Wensaas⁶, Jeannine L.A. Hautvast⁷, Chantal P Bleeker-Rovers⁸, Ute
Vollmer-Conna⁹, Dedra Buchwald¹⁰, Renée Taylor¹¹, Paul Little¹², Esther Crawley¹², Peter
D White¹³, and Andrew Lloyd¹⁴**

COFFI Research Questions

Q1	Do different infections trigger different post-infection syndromes?
Q2	What are the predictors of long-term symptoms following infection?
Q3	Are there qualitative differences in fatigue following infection and, if so, what factors predict any such differences?
Q4	Are there predisposing risk factors for post-infection fatigue before or during the febrile phase?
Q5	Are there early or late perpetuating risk factors for post-infection fatigue?
Q6	How do the risk factors and/or perpetuating factors interact and change over time?
Q7	What are therapeutic options for post-infection fatigue?

To "lump" or to "split" the functional somatic syndromes: can infectious and emotional risk factors differentiate between the onset of chronic fatigue syndrome and irritable bowel syndrome?

Moss-Morris R¹, Spence M.

+ Author information

Abstract

OBJECTIVES: Recent academic debate has centered on whether functional somatic syndromes should be defined as separate entities or as one syndrome. The aim of this study was to investigate whether there may be significant differences in the etiology or precipitating factors associated with two common functional syndromes, irritable bowel syndrome (IBS) and chronic fatigue syndrome (CFS).

METHODS: We prospectively studied 592 patients with an acute episode of *Campylobacter* gastroenteritis and 243 with an acute episode of infectious mononucleosis who had no previous history of CFS or IBS. At the time of infection, patients completed a baseline questionnaire that measured their levels of distress using the Hospital Anxiety and Depression scale. At 3- and 6-month follow-up, they completed questionnaires to determine whether they met published diagnostic criteria for chronic fatigue (CF), CFS, and/or IBS.

RESULTS: The odds of developing IBS were significantly greater post-*Campylobacter* than post-infectious mononucleosis at both 3- (odds ratio, 3.45 [95% confidence interval (CI), 1.75-6.67]) and 6- (2.22 [95% CI, 1.11-6.67]) month follow-up. In contrast, the odds for developing CF/CFS were significantly greater after infectious mononucleosis than after *Campylobacter* at 3 (2.77 [95% CI, 1.08-7.11]) but not 6 (1.48 [95% CI, 0.62-3.55]) months postinfection. Anxiety and depression were the strongest predictors of CF/CFS, whereas the nature of the infection was the strongest predictor of IBS.

CONCLUSIONS: These results support the argument to distinguish between postinfectious IBS and CFS. The nature of the precipitating infection appears to be important, and premorbid levels of distress appear to be more strongly associated with CFS than IBS, particularly levels of depression.

The International Collaborative on Fatigue Following Infection (COFFI)

Ben Z Katz^{1,*}, Simon M Collin², Gabrielle Murphy³, Rona Moss-Morris⁴, Vegard Bruun Wyller⁵, Knut-Arne Wensaas⁶, Jeannine L.A. Hautvast⁷, Chantal P Bleeker-Rovers⁸, Ute Vollmer-Conna⁹, Dedra Buchwald¹⁰, Renée Taylor¹¹, Paul Little¹², Esther Crawley¹², Peter D White¹³, and Andrew Lloyd¹⁴

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Q7	What are therapeutic options for post-infection fatigue?

Etude Qure : traitement de la fatigue chronique post-fièvre Q

- Epidémie de fièvre Q aux Pays-Bas de 2007 à 2010 (4000 infections symptomatiques et estimation de 44,000 sujets infectés)
- Fièvre Q chronique : 1-5% des cas
- Syndrome de fatigue post-FQ (QFS) > 20%, pour la plupart remplissant les critères du SFC
- Essai clinique randomisé comparant doxycycline, TCC et placebo pendant 6 mois.

Keijmel SP *et al.* *BMC Infectious Diseases* 2013,13:157
Keijmel SP *et al.* *CID* 2017,64:998-1005
Raijmakers RPH *et al.* *J Psychosom Res* 2019,116:62-67

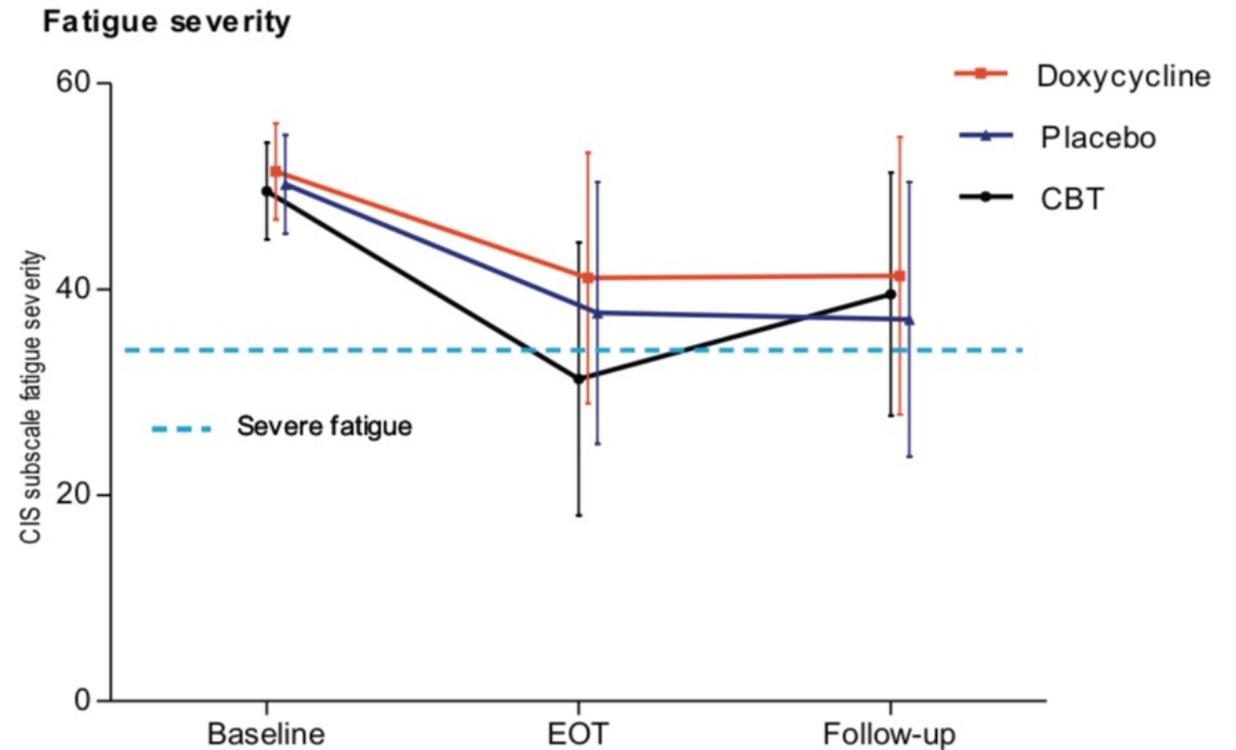


Fig. 2. Mean scores of fatigue severity by treatment group at baseline, EOT and follow-up.

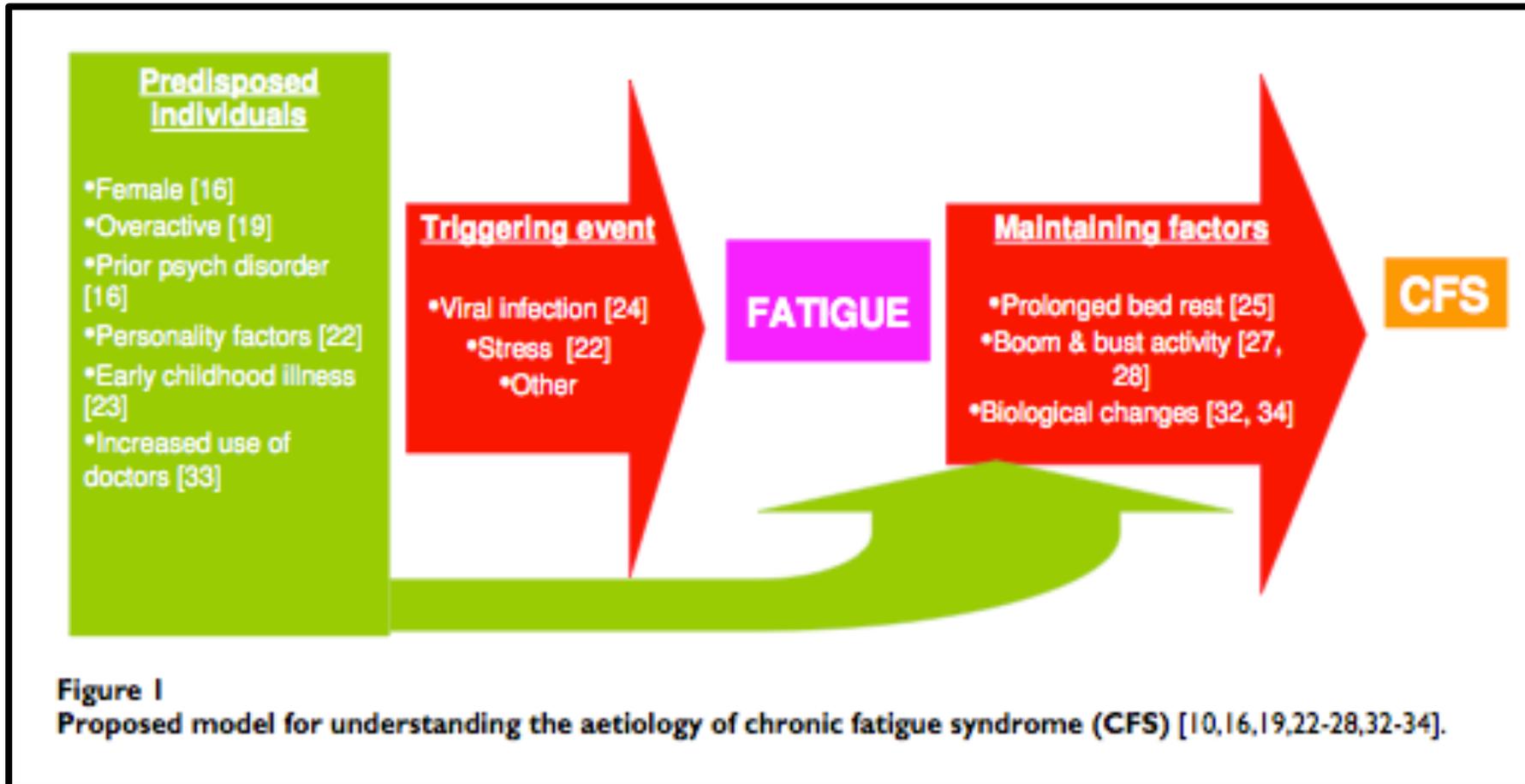
The CIS subscale fatigue severity questionnaire was used. Patients with a CIS subscale fatigue severity cut-off score of ≥ 35 were classified as severely fatigued. Values are means and error bars are standard deviations. Abbreviations: CBT, cognitive behavioural therapy; CIS, checklist individual strength; EOT, end of treatment.

3. Approche du patient présentant un syndrome fonctionnel (post-infectieux)

Principes généraux

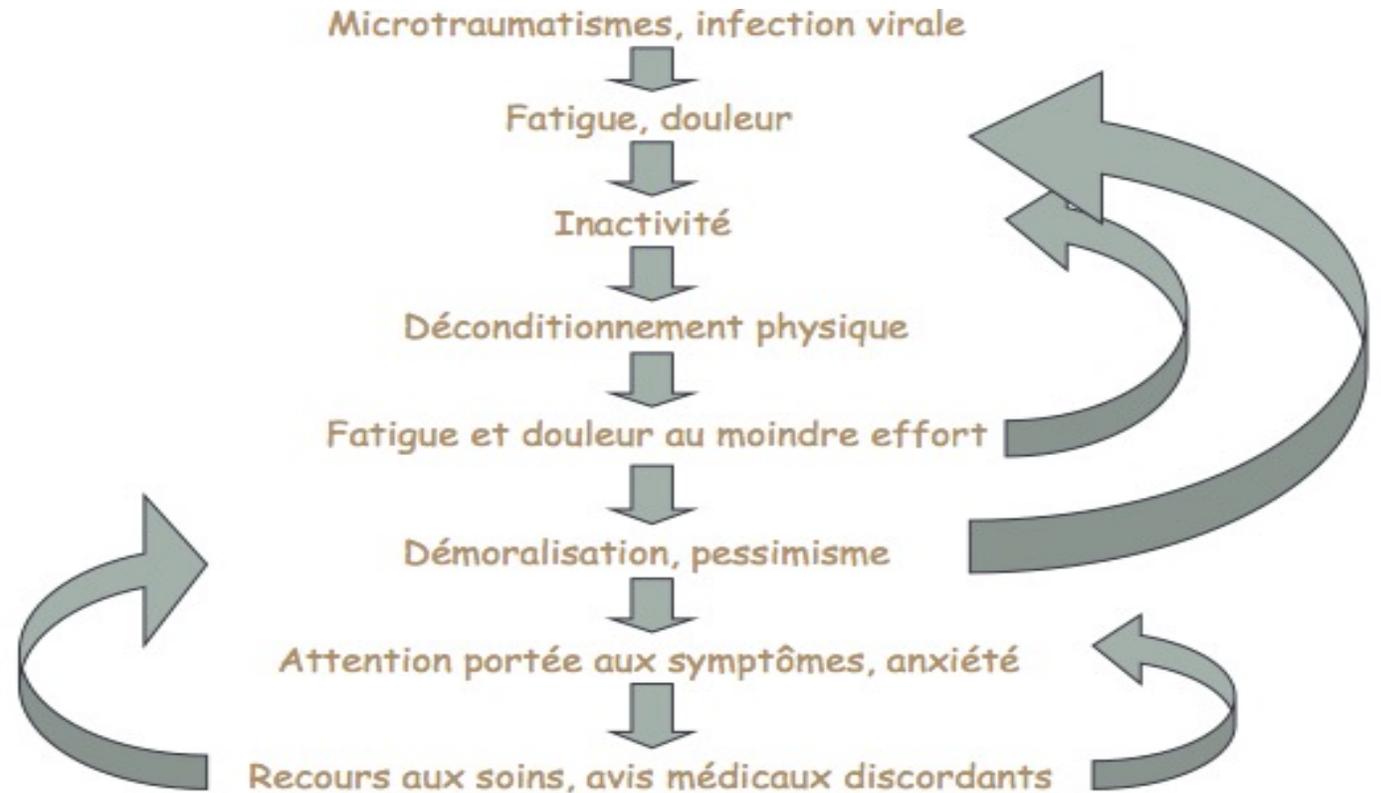
- Adopter une approche centrée sur le patient plutôt que sur la « maladie »
- Dépasser les conflits d'attribution et construire *avec le patient* des explications plausibles et non stigmatisantes des troubles
- Affronter la complexité socio-psycho-somatique :
 - En distinguant les facteurs prédisposant, précipitants et d'entretien des symptômes
 - En renonçant aux causalités linéaires pour aborder les causalités circulaires et les cercles vicieux contribuant à la chronicisation
 - En comprenant l'importance des mécanismes cognitifs de production des symptômes
- Lutter contre les idées fausses sur les troubles fonctionnels et contre la stigmatisation des personnes en souffrant

Distinguer les facteurs prédisposant, précipitants et d'entretien des symptômes



Causalités circulaires et cercles vicieux contribuant à la chronicisation

- Les facteurs d'entretien sont de nature biologique, psychologique, comportementale, interpersonnelle, sociaux (dont l'interaction avec le système de soins), et culturelle.
- Ils sont propres à chaque malade et doivent être identifiés avec lui.
- *Non, les symptômes et syndromes fonctionnels ne sont pas "tout dans la tête" ! (mais un peu quand même)*



Mécanismes cognitifs de production des symptômes

Neuroscience and Biobehavioral Reviews 74 (2017) 185–203

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Review article

The modal model of symptom perception (see Table 1)

derators

Trait negative affect,
health anxiety, illness

V. Pitron et al. / La Revue de médecine interne (2019) 466–473

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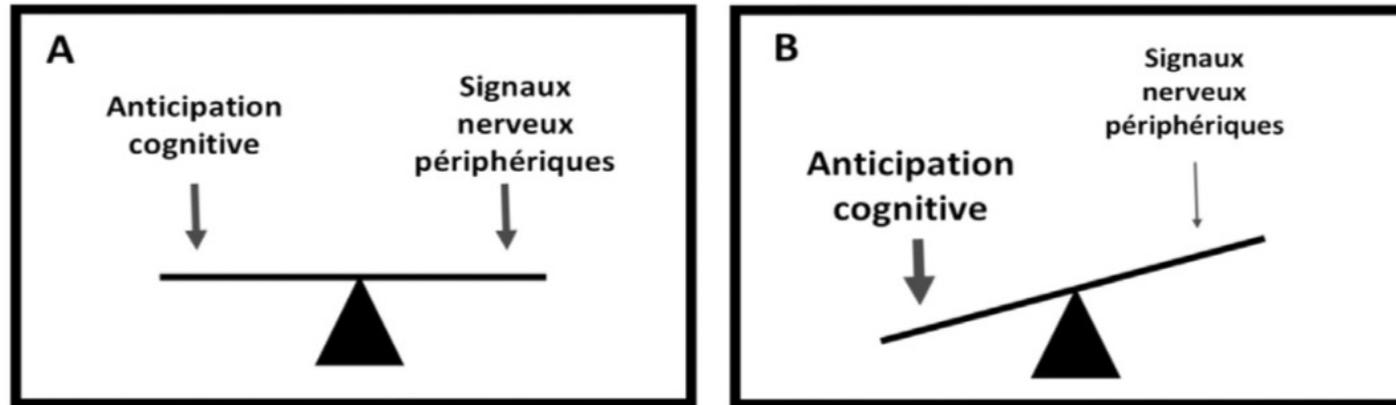


Fig. 1. A. Perception corporelle normale. Selon le modèle bayésien, la perception corporelle résulte de l'intégration des signaux émanant du système nerveux périphérique et de la prédiction par le cerveau de ce que devrait être la perception dans le contexte actuel. La balance entre les 2 types d'information est équilibrée dans les perceptions corporelles normales. B. Perception corporelle dans les troubles somatiques fonctionnels. La probabilité de survenue de la perception estimée par le cerveau est exagérément forte. Cette prédiction cognitive déséquilibre la balance et influence exagérément la perception corporelle au détriment des signaux nerveux périphériques.

Lutter contre la stigmatisation des troubles fonctionnels

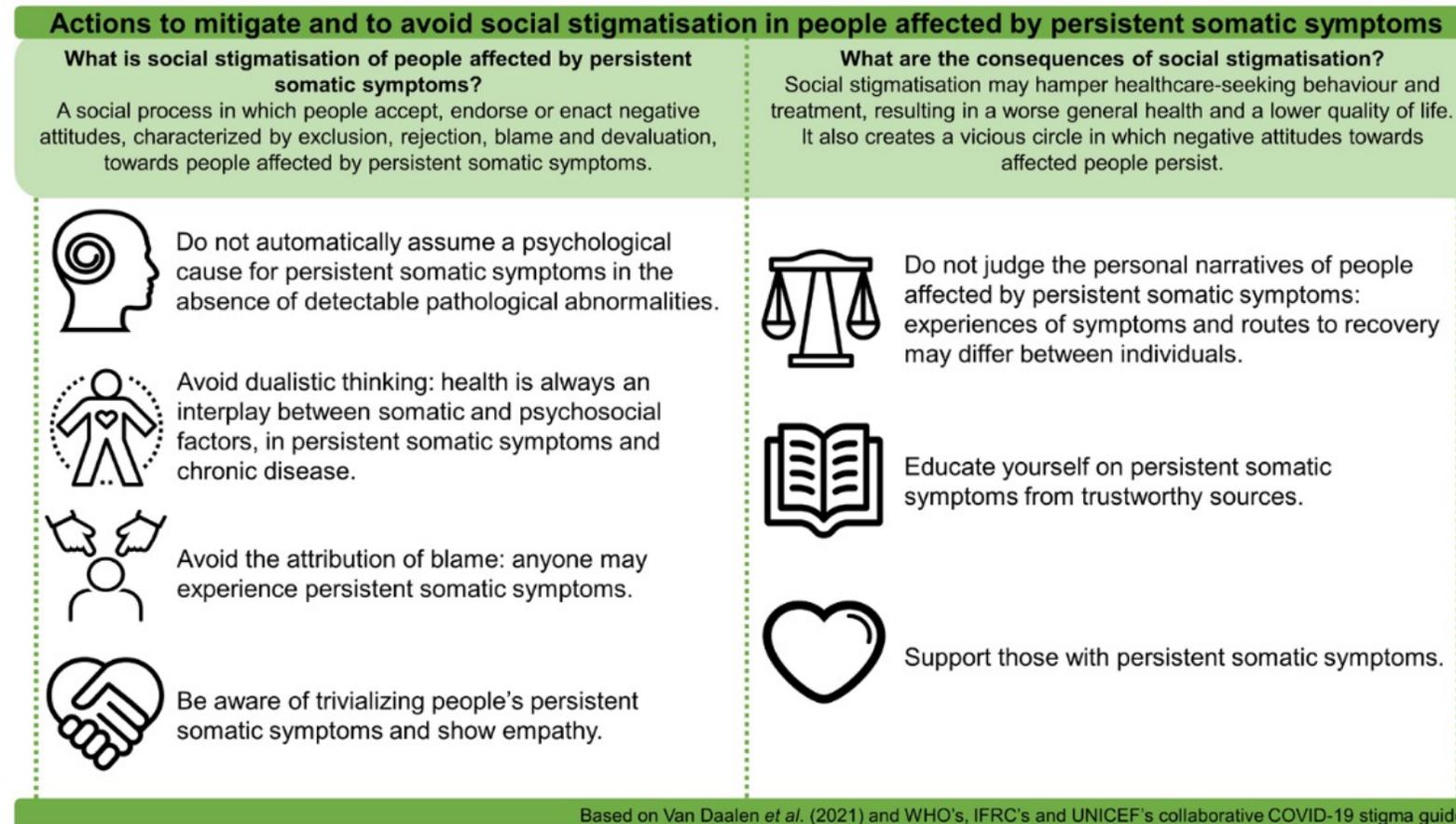


Figure 1 Actions to mitigate and to avoid social stigmatisation in people affected by persistent somatic symptoms.

Comment se comporter avec un patient adhérant à une attribution médicalement contestée ou fallacieuse ?

Les faits sont
complètement démentis
par mon opinion.

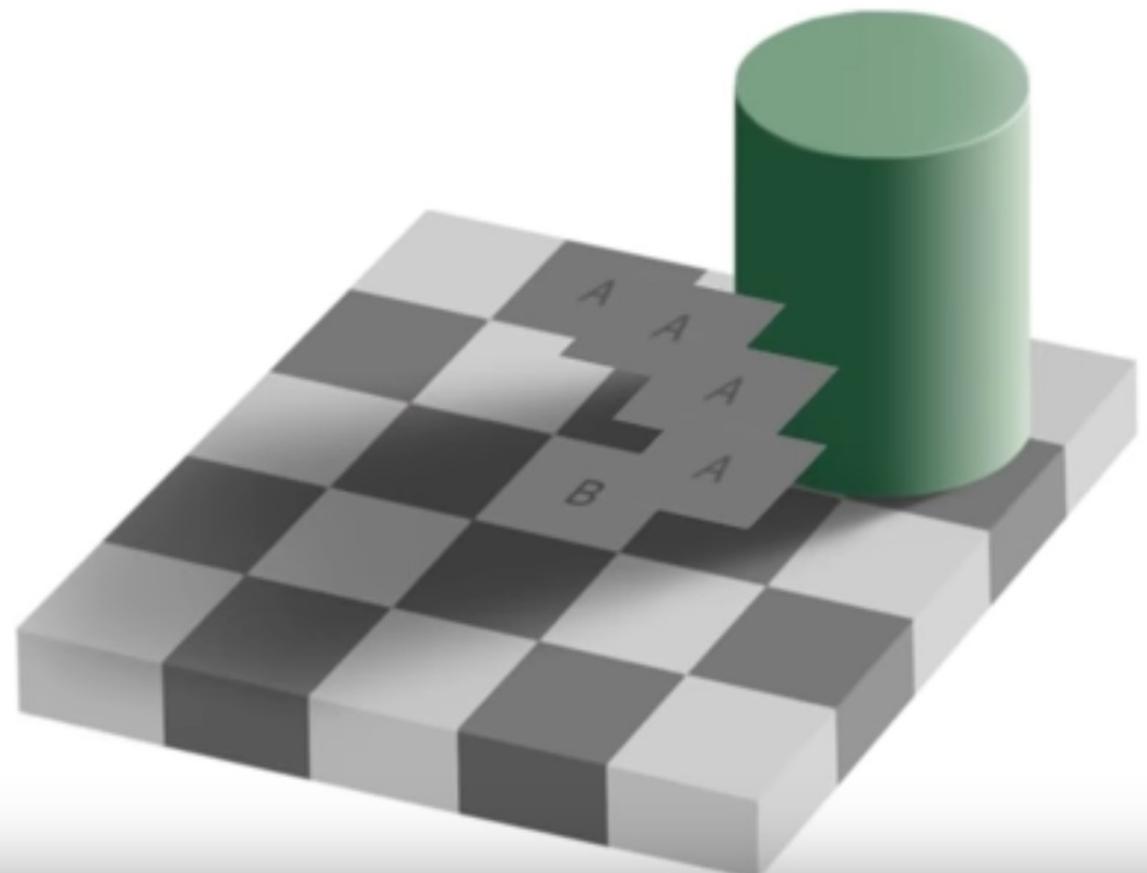
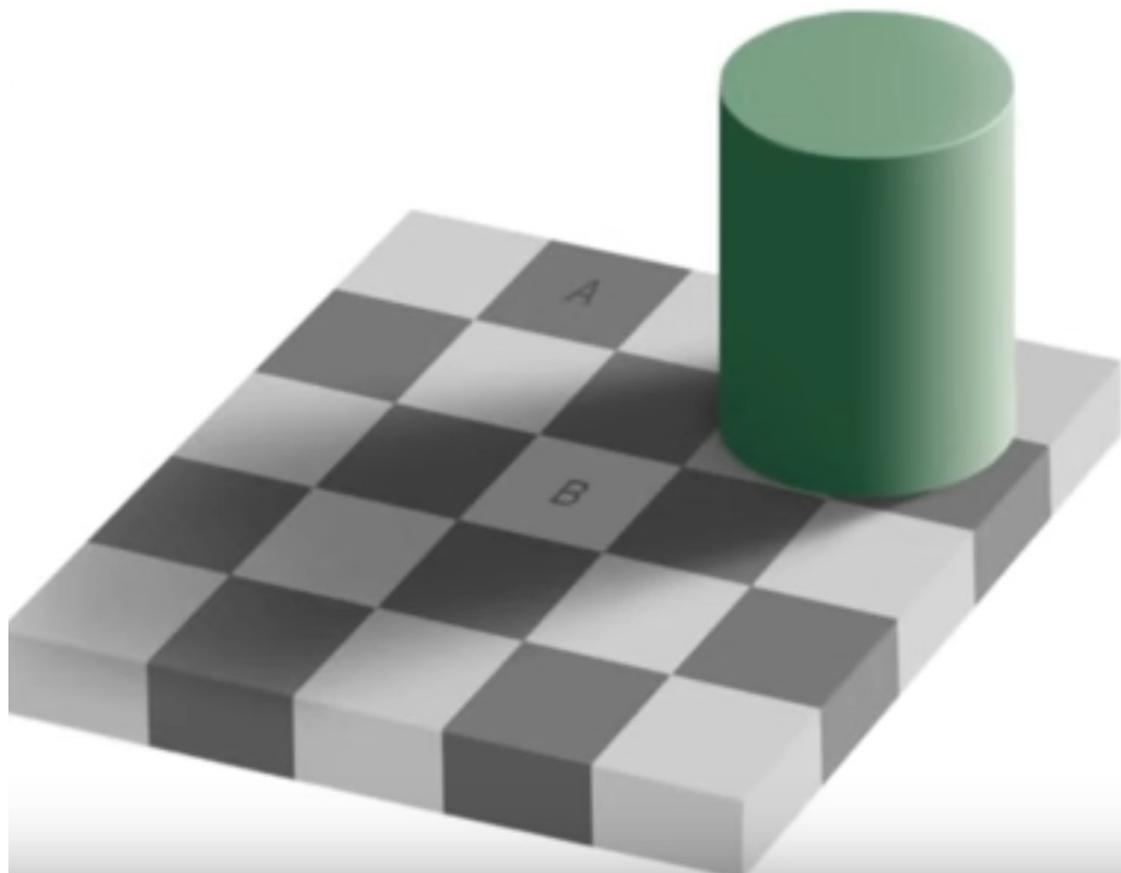


- S'enquérir des hypothèses étiologiques du patient, surtout lorsqu'elles ne sont pas explicites.
- Comprendre comment s'est construite cette attribution.
- En évaluer la plausibilité du point de vue médical, sans faire de raccourcis abrupts ou condescendants.
- Évaluer le degré d'adhésion/croyance du patient : hypothèse ou conviction ?
- Reconnaître qu'adhérer à une attribution faisant l'objet de controverses scientifiques et sociales est une cause supplémentaire de souffrance.
- Aider le patient à comprendre que cette situation est un frein à l'amélioration (« *If you have to prove you're ill...* »)



Merci de votre attention !

L'échiquier d'Adelson



Les syndromes fonctionnels post-infectieux posent-ils des questions spécifiques ?

- Le type d'infection documentée détermine-t-il une symptomatologie spécifique ?
- L'épisode infectieux identifié joue-t-il le rôle d'un facteur prédisposant, ou déclenchant (non spécifique) du syndrome fonctionnel ?
- Une infection active persistante est-elle susceptible d'expliquer les symptômes ?
- Le pronostic des syndromes fonctionnels post-infectieux diffère-t-il de celui des syndromes fonctionnels sans épisode infectieux initial ?
- L'attribution des symptômes fonctionnels à un agent infectieux peut-elle s'avérer thérapeutique ou à l'inverse iatrogène ?
- Des conduites thérapeutiques spécifiques découlent-elles du caractère post-infectieux d'un syndrome fonctionnel ?

Le Covid long est-il un trouble fonctionnel comme les autres ?

Research Paper

PAIN[®]

A comparison of pain, fatigue, and function between post-COVID-19 condition, fibromyalgia, and chronic fatigue syndrome: a survey study

Saman Haider^a, Adam J. Janowski^a, Joseph B. Lesnak^a, Kazuhiro Hayashi^a, Dana L. Dailey^b, Ruth Chimentì^a, Laura A. Frey-Law^a, Kathleen A. Sluka^{a,*}, Giovanni Berardi^a

Abstract

A growing number of individuals report prolonged symptoms following acute Coronavirus-19 (COVID-19) infection, known as post-COVID-19 condition (post-COVID-19). While studies have emerged investigating the symptom sequelae of post-COVID-19, there has been limited investigation into the characterization of pain, fatigue, and function in these individuals, despite initial reports of a clinical phenotype similar to fibromyalgia syndrome (FMS) and chronic fatigue syndrome (CFS)/myalgic encephalomyelitis (ME). This study aimed to characterize multiple symptom domains in individuals reporting post-COVID-19 and compare its clinical phenotype with those with FMS and CFS. A total of 707 individuals with a single or comorbid diagnosis of post-COVID-19, FMS, and/or CFS completed multiple surveys assessing self-reported pain, fatigue, physical and cognitive function, catastrophizing, kinesiophobia, anxiety, depression, dyspnea, and sleep quality. In all 3 diagnoses, elevated pain, fatigue, anxiety, depression, catastrophizing, and kinesiophobia were reported. Physical and cognitive function were similarly impacted among individuals with post-COVID-19, FMS, and CFS; however, individuals with post-COVID-19 reported lower pain and fatigue than FMS and CFS. The comorbid diagnosis of post-COVID-19 with FMS and/or CFS further exacerbated pain, fatigue, and psychological domains when compared with post-COVID-19 alone. In summary, individuals with post-COVID-19 report a symptom phenotype similar to FMS and CFS, negatively impacting cognitive and physical function, but with less severe pain and fatigue overall. These findings may help direct future investigations of the benefit of a biopsychosocial approach to the clinical management of post-COVID-19.

Keywords: Post-COVID-19 syndrome, Post-COVID-19 condition, Long haulers, Long COVID, Long-term COVID postacute sequelae of SARS-CoV-2, Fibromyalgia, Chronic fatigue syndrome, Myalgic encephalomyelitis, Pain, Fatigue, Function, COVID-19, SARS CoV-2 virus



Review article

Symptoms and the body: Taking the inferential leap

Omer Van den Bergh^{a,*}, Michael Witthöft^b, Sibylle Petersen^{a,c}, Richard J. Brown^{d,e}

The modal model of symptom perception (see Table 1)

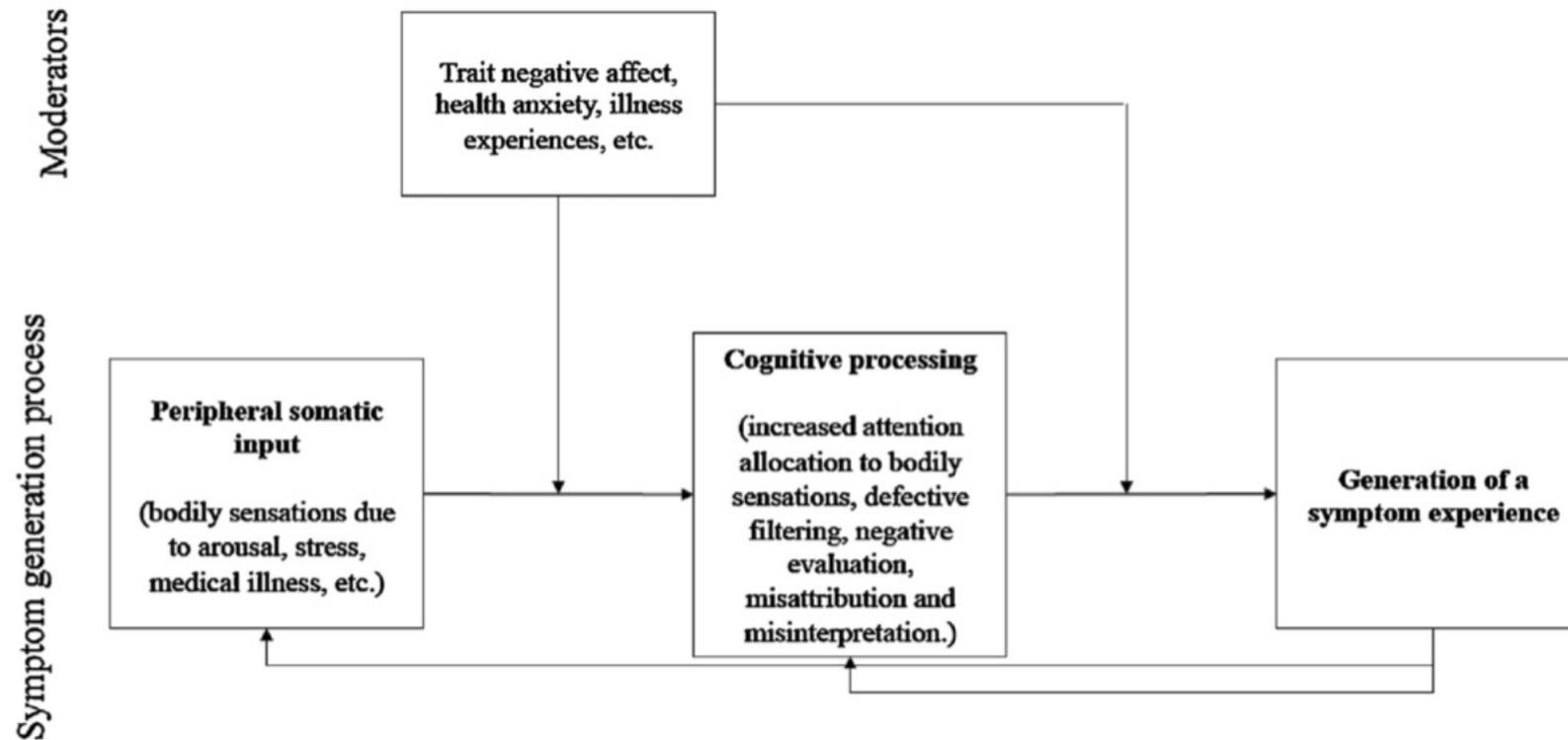


Fig. 1. The modal model of symptom perception. According to this model, somatic symptom perception starts with peripheral somatic afferent input, followed by cognitive processing that determines the degree of cognitive representation of this input and thereby the strength of conscious symptom perception.

Syndromes (de fatigue) post-infectieux

Summary

Taken together, these findings from post-infective cohorts show that (1) fatigue is a common and sometimes disabling symptom after a diverse range of infections, (2) the natural history of persistent fatigue is often of slow resolution over months or longer, (3) the severity of the acute illness, psychological status at baseline, and the cognitive and behavioral responses to the acute illness predict PIFS, (4) and structured medical and psychiatric assessments of those with self-reported chronic fatigue will identify a subset with explanatory diagnoses such as residual lung injury.

Open Forum Infectious Diseases

REVIEW ARTICLE



Long COVID and Post-infective Fatigue Syndrome: A Review

Carolina X. Sandler,¹ Vegard B. B. Wyller,^{2,3} Rona Moss-Morris,⁴ Dedra Buchwald,⁵ Esther Crawley,⁶ Jeannine Hautvast,⁷ Ben Z. Katz,^{8,9} Hans Knoop,¹⁰ Paul Little,¹¹ Renee Taylor,¹² Knut-Arne Wensaas,¹³ and Andrew R. Lloyd^{1,10}

Tableau. Proposition d'ordonnance type de réadaptation fonctionnelle des symptômes prolongés après Covid-19 (SPAC).

Faire pratiquer par un kinésithérapeute DE	16 séances de rééducation respiratoire et motrice à raison de 2 séances minimum par semaine pendant 2 mois		
	2 séances hebdomadaires d'autoentretien en autonomie à domicile		
Reconditionnement à l'effort	Réadaptation cardiorespiratoire	Endurance aérobie cardiorespiratoire (tapis de marche ou vélo) à durée progressive avec pour objectif 20 minutes en fin de mois	
		Puis exercice séquentiel court et intermittent sur vélo 15 s/15 s à partir du 2 ^e mois	
	Renforcement musculaire	Mobilisation articulaire de récupération d'amplitude	
		Réveil musculaire spécifique des membres inférieurs et supérieurs	
		Renforcement musculaire fonctionnel au poids de corps	2 ou 3 séries de 10 répétitions de chaque exercice adapté aux capacités du patient
			Adaptation aux éventuelles exacerbations de fatigue/douleur à l'effort
Étirements doux en fin de séance			
Réhabilitation respiratoire pour hyperventilation ou dyssynergie respiratoire	Travail de contrôle du cycle respiratoire au repos et à l'effort	Cohérence cardiaque	
		Resynchronisation thoracoabdominale	
		Respiration dirigée, apnée inspiratoire et/ou expiratoire	
		Contrôle de l'hyperventilation à l'effort	

Le patient présente des symptômes et des indices de mal-être

Le médecin suit 2 ordres du jour parallèles

L'agenda du médecin :

- histoire médicale
- examen clinique
- investigations complémentaires

L'agenda du malade :

- croyances et représentations
- attentes
- émotions (craintes, espoirs...)

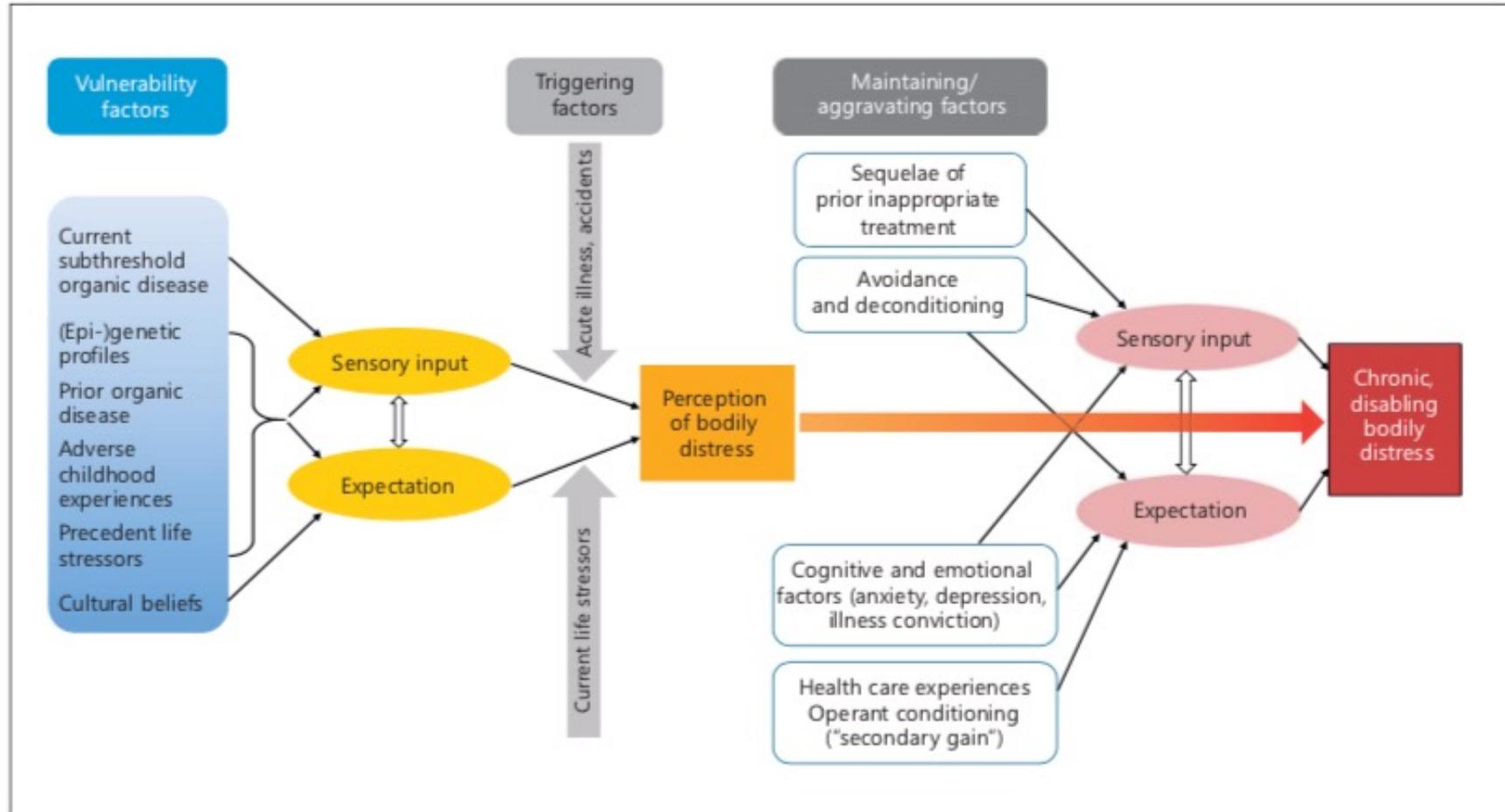
Diagnostic

Compréhension de l'expérience de la maladie

Intégration

Levenstein JH *et al.* The patient-centred clinical method. 1. A model for the doctor-patient interaction in family medicine. *Fam Pract* 1986;3:24-30.

Adopter un modèle holistique des troubles fonctionnels



Lutter contre les idées fausses sur les symptômes fonctionnels

Editorial

Exploding myths about medically unexplained symptoms

Les SMI sont le signe
d'un trouble mental
sous-jacent

Les SMI sont toujours
chroniques et résistants
au traitement

Introduction

The term "medically unexplained symptoms" has had a chequered history. It has been widely used in clinical medicine and in many research studies but it has come under increasing criticism as it lacks precision and may perpetuate mind-body dualism. This paper aims to dismiss three myths concerning medically unexplained symptoms and, instead, suggests an alternative and more holistic way of regarding these symptoms.

The term "medically unexplained symptoms" refers to the large proportion of patients seeking medical care whose symptom(s) cannot be explained by a recognised general medical illness; they may form half of new medical clinic patients [1]. This group of patients includes those with a functional somatic syndrome (e.g. chronic fatigue or fibromyalgia), those with a diagnosis of somatoform disorder, somatization disorder or Bodily Distress Syndrome and those who receive a diagnosis of "symptom, signs not elsewhere classified" (ICD 10), [1-3]. These diagnostic groups overlap and a proportion of each will fulfil also the criteria for an anxiety or depressive disorder (Fig. 1).

Myth 1 Medically unexplained symptoms indicate an underlying psychiatric disorder

The proportion of patients with medically unexplained symptoms who also have anxiety or depressive disorders increases in proportion to the number of somatic symptoms. Of primary care patients with 4-5 medically unexplained symptoms one third have an anxiety or depressive disorder; the proportion rises to a half in patients with 6-8 medically unexplained symptoms and up to 80% in patients with 9 or more medically unexplained symptoms [4,5]. Most patients presenting to medical clinics with medically unexplained symptoms have a small number of such symptoms so a third to two thirds do not have an anxiety or depressive disorder [6,7]. In a population-based sample, a minority of people reporting medically unexplained symptoms have anxiety or depressive disorders [8].

The myth that all patients with medically unexplained symptoms have a psychiatric disorder arises, in part, because the diagnosis of undifferentiated somatoform disorder was created in DSM-IV and ICD-10. This diagnosis could be made solely on the basis of one or more medically unexplained symptoms that led to impairment and treatment seeking. This diagnosis did not require any positive psychological characteristic other than the somatic symptom(s) so has been abandoned in DSM-5 [9].

Myth 2 Medically unexplained symptoms are persistent, disabling and resistant to treatment

A systematic review concluded that most medically unexplained symptoms are not persistent; 50% to 75% improve over 1 year [10]. This review found some evidence that a large number of somatic symptoms at baseline were associated with persistent symptoms and it is the small number of patients with very numerous medically unexplained symptoms who generally report persistent symptoms and marked impairment. A systematic review of treatment outcome concluded that positive results were more often obtained in trials including the more severe conditions than medically unexplained symptoms, which so often resolve spontaneously indicating the good prognosis of most medically unexplained symptoms [11].

Myth 3 Medically unexplained symptoms have an aetiology distinct from organic disorders

Relatively little work has assessed the risk factors for developing medically unexplained symptoms. Although prior psychiatric disorder is a risk factor, this is not the sole explanation [12,13] and evidence concerning the functional somatic syndromes suggests that both "organic" and psychological causal factors are involved. Prospective studies of irritable bowel and chronic fatigue syndromes have demonstrated that both prior infection and anxiety or depression are independent risk factors [14,15].

In summary, not all patients with medically unexplained symptoms have concurrent anxiety or depression and only a proportion have persistent and disabling somatic symptoms; the likelihood of these associations increase with an increasing number of medically unexplained symptoms. The risk factors for the development of medically unexplained symptoms are not fully understood but appear to include both physical and psychological ones. It is increasingly recognised that medically unexplained symptoms are often accompanied by somatic symptoms that are directly attributable to general medical illnesses thus blurring the line between disorders characterised by medically unexplained or explained symptoms [8].

A more holistic approach

Recent research has moved away from medically unexplained symptoms using, instead, measures of all somatic symptoms, i.e. including both medically explained and unexplained somatic symptoms. Such studies show clearly that a high total number of somatic symptoms is

Les SMI ont une
physiopathologie
distincte de celle des
maladies organiques

La prévalence de
l'anxiété et de la
dépression est
d'autant plus élevée
que le nombre de
symptômes,
expliqués ou non, est
important

