Medically Unexplained Symptoms
Evidence Update

February 2018 (Quarterly)
Training Sessions 2018

All sessions are one hour

March (13.00-14.00)
8th (Thu) Statistics
12th (Mon) Literature Searching
20th (Tue) Critical Appraisal
28th (Wed) Statistics

April (12.00-13.00)
5th (Thu) Literature Searching
9th (Mon) Critical Appraisal
17th (Tue) Statistics
25th (Wed) Literature Searching

Your Outreach Librarian: Jo Hooper

Whatever your information needs, the library is here to help. Just email us at library@uhbristol.nhs.uk

Outreach: Your Outreach Librarian can help facilitate evidence-based practice for all in the team, as well as assisting with academic study and research. We also offer one-to-one or small group training in literature searching, critical appraisal and medical statistics. Get in touch: library@uhbristol.nhs.uk

Literature searching: We provide a literature searching service for any library member. For those embarking on their own research it is advisable to book some time with one of the librarians for a one-to-one session where we can guide you through the process of creating a well-focused literature research. Please email requests to library@uhbristol.nhs.uk
**UpToDate®**

*OpenAthens login required. Register here: [https://openathens.nice.org.uk/](https://openathens.nice.org.uk/)*

<table>
<thead>
<tr>
<th>Topic</th>
<th>Literature review current through</th>
<th>This topic last updated</th>
</tr>
</thead>
</table>
UpToDate® is now available as a Mobile App, free for all UH Bristol staff.

Interested in staying up to date?
Sign up at the Library, or email: library@uhbristol.nhs.uk
Database Articles

Below is a selection of articles related to medically unexplained symptoms that were recently added to the healthcare databases.

If you would like any of the following articles in full text, or if you would like a more focused search on your own topic, then get in touch: library@uhbristol.nhs.uk

- Medically Unexplained Symptoms
- Munchausen/ Fictitious Illness and disease/ Malingering
- Functional Disorders
- Conversion Disorder

Medically Unexplained Symptoms

**Medically unexplained dermatologic symptoms: Hiding in plain sight?**

**Author(s):** Elpern D.J.

**Source:** Journal of the European Academy of Dermatology and Venereology; 2018

**Publication Type(s):** Article In Press

**The neuropsychophysiology of tingling**

**Author(s):** Tihanyi B.T.; Ferentzi E.; Koteles F.; Beissner F.

**Source:** Consciousness and Cognition; Feb 2018; vol. 58 ; p. 97-110

**Publication Type(s):** Review

**Abstract:** Tingling is a bodily sensation experienced under a variety of conditions from everyday experiences to experimental and therapeutic situations. It can be induced by both peripheral or afferent (external stimulation, peripheral pathology) and higher cognitive (expectation) processes. The paper summarizes the current scientific knowledge on the neurophysiological and psychological concomitants of the tingling sensation. Four possible models are identified and presented: the afferent, the attention-disclosed, the attention-evoked, and the efferent model. Of these, only the attention-disclosed model, i.e., attention discloses the sensation by opening the gate for suppressed sensory information, appears to be able to explain every aspect of the tingling phenomenon. Terminological issues and the possible role of the tingling phenomenon in medically unexplained symptoms, nocebo and placebo reactions, and body-oriented therapeutic interventions are also discussed. Copyright © 2017 Elsevier Inc.

**The association of experience of violence and somatization, depression, and alexithymia: a sample of women with medically unexplained symptoms in Turkey**

**Author(s):** Anuk D.; Bahadir G.

**Source:** Archives of Women’s Mental Health; Feb 2018; vol. 21 (no. 1); p. 93-103

**Publication Type(s):** Article
Abstract: The aim of the study was to examine the relationship between the levels of somatization, depression as well as alexithymia, and MUS in women going through violence experience in three contexts (childhood, adulthood, and both childhood and adulthood). The study was performed on 180 patients attending the Internal Medicine Department of Istanbul University Medical Faculty. The data of women with MUS (n = 50) were compared those of women with acute physical conditions (n = 46) and chronic physical conditions (n = 84). Semi-structured Interview Form, Childhood Abuse and Neglect Inventory, Brief Symptom Inventory, Beck Depression Inventory, and the Toronto Alexithymia Scale were administered. The levels of somatization and depression were found to be higher in women who were exposed to emotional abuse (EA) and physical abuse (PA) in adulthood in the MUS group compared with those of the women exposed to EA and PA in adulthood in the other groups. The levels of somatization, depression, and alexithymia in the MUS group exposed to childhood emotional abuse (CEA) were also higher than those in the controls exposed to CEA. The levels of somatization and alexithymia in the MUS group who were exposed to childhood physical abuse (CPA) were higher than those in the controls exposed to CPA. The levels of somatization and depression in the MUS group who were exposed to violence both in childhood and in adulthood were higher than those in the controls who experienced violence both in childhood and in adulthood. Most women exposed to domestic violence present to health care institutions with various physical and psychological symptoms in Turkey. So, it is important that health caregivers also ask questions about experiences of violence and psychological symptoms in women presenting with medically unexplained symptoms. Copyright © 2017, Springer-Verlag GmbH Austria.

Medically unexplained physical symptoms in patients attending a medical outpatient clinic in a tertiary hospital in North India

Author(s): Sharma M.; Singh S.M.; Avasthi A.; Varma S.C.; Sharma A.; Suri V.

Source: Asian Journal of Psychiatry; Feb 2018; vol. 32; p. 99-104

Publication Type(s): Article

Abstract: Objective Medically unexplained physical symptoms (MUPS) are commonly seen across health care settings. Earlier studies have focussed on prevalence, cost-utilization and burden. Data from India is scarce. Patients with persistent MUPS have more impairment and psychological distress. This study was designed to assess psychological morbidity, health anxiety (HA), somatic symptom load, disability, quality of life (QOL) in patients with persistent MUPS presenting to a general medical outpatient service and compare it with patients with medically explained physical symptoms (MEPS). Methods The study was conducted in the outpatient service of the Department of Internal Medicine in a tertiary hospital in North India. Persistent MUPS was defined as physical symptoms of at least 3 months duration leading to dysfunction and with no identifiable medical cause. 70 patients with persistent MUPS and MEPS each were recruited. Psychiatric morbidity was assessed using the Mini International Neuropsychiatric interview, somatic symptom load with Patient Health Questionnaire-15 (PHQ-15), HA with Whiteley Index, disability with WHODAS 2.0 and QOL with WHOQOL-Bref. Results Both the groups were comparable on socio-demography and length of symptoms. Prevalence of psychiatric disorders and HA was significantly greater in MUPS. Patients with persistent MUPS had significantly more health care utilization, number and burden of somatic symptoms, greater disability and worse QOL. Conclusions Patients with persistent MUPS have a different profile when compared to MEPS. There is a need to screen and identify patients with MUPS and manage them keeping in mind the psychological factors and chronic nature and number of symptoms. Copyright © 2017 Elsevier B.V.

Retrospective memory for symptoms in patients with medically unexplained symptoms

Author(s): Walentynowicz M.; Bogaerts K.; Van Diest I.; Van den Bergh O.; Stans L.; Raes F.
Abstract: Objective Clinical assessment and diagnostic processes heavily rely on memory-based symptom reports. The current study investigated memory for symptoms and the peak-end effect for dyspnea in patients with medically unexplained symptoms and healthy participants. Methods Female patients with medically unexplained dyspnea (MUD) (n = 22) and matched healthy controls (n = 22) participated in two dyspnea induction trials (short, long). Dyspnea ratings were collected: (1) continuously during symptom induction (concurrent with respiratory measures), (2) immediately after the experiment, and (3) after 2 weeks. Symptoms, negative affect, and anxiety were assessed at baseline and after every trial. The mediating role of state anxiety in symptom reporting was assessed. The peak-end effect was tested with forced-choice questions measuring relative preference for the trials. Results Compared to controls, dyspnea induction resulted in higher levels of symptoms, anxiety, concurrent dyspnea ratings, and minute ventilation in the patient group. In both groups, immediate retrospective ratings were higher than averaged concurrent ratings. No further increase in dyspnea ratings was observed at 2-week recall. Retrospective dyspnea ratings were mediated by both state anxiety and concurrent dyspnea ratings. Patients did not show a peak-end effect, whereas controls did. Conclusion The findings show that patients’ experience of a dyspneic episode is subject to immediate memory bias, but does not change over a longer time period. The results also highlight the importance of affective state during symptom experience for both symptom perception and memory. Copyright © 2017 Elsevier Inc.
OBJECTIVE The objective of this study was to assess the incidence and characteristics of patients presenting with physical symptoms that remain medically unexplained at the emergency department (ED).

PATIENTS AND METHODS A retrospective chart study was carried out in three hospitals in The Netherlands and Belgium. All patients (age > 18 years) visiting the ED in 4 selected weeks in 2013 at the Erasmus University Medical Center (Erasmus MC) in Rotterdam, The Netherlands, and 1 selected week in 2013 at the Haaglanden Medical Center, Westeinde HMC in The Hague, The Netherlands, and the University Hospital Ghent (UZG), Belgium were included. Descriptive statistics were used for data analysis.

RESULTS A total of 2869 patients (Erasmus MC 1674, HMC 691, UZG 504) were included. Medically unexplained physical symptoms in the emergency department (EDMUPS) were present in 13.4% of all ED visits (Erasmus MC 12.5%, HMC 18.7%, UZG 9.1%). No EDMUPS were identified in trauma patients. When excluding trauma patients, EDMUPS were present in 18.5% (Erasmus MC 16.8%, HMC 26.5%, UZG 13.3%) of the visits. The characteristics of patients with and without EDMUPS differed significantly; patients with EDMUPS were more often younger, female, self-referred, frequent visitors, were prescribed less medication and more often had a psychiatric disease. Dutch and Belgian Hospital differed in the distribution of patients in triage categories and in the incidence of psychiatric illnesses.

CONCLUSION Physical symptoms remain unexplained in a significant number of patients at the time of ED assessment.

Medically unexplained physical symptoms, misunderstood and wrongly treated? A semiotic perspective on chronic pain.

Author(s): Busvold, Kari Irene H; Bondevik, Hilde

Patients' experiences of living with medically unexplained symptoms (MUS): a qualitative study.

Author(s): Sowińska, Agnieszka; Czachowski, Sławomir

Patients' experiences of living with medically unexplained symptoms (MUS): a qualitative study.
Abstract:BACKGROUND Patients with medically unexplained symptoms (MUS) are common in primary care, and pose a communicative and therapeutic challenge to GPs. Although much has been written about GPs' frustration and difficulties while dealing with these patients, research presenting the patients' perspectives on MUS still seems to be scarce. Existing studies have demonstrated the patients' desire to make sense of symptoms, addressed the necessity for appropriate and acceptable explanation of MUS, and revealed stigmatization of patients with symptoms of mental origin. Treatment in primary care should focus on the patient's most essential needs and concerns. The objective of this paper is to explore Polish patients' perspectives on living with MUS.

METHODS A qualitative content analysis of 20 filmed, semi-structured interviews with patients presenting MUS (8 men and 12 women, aged 18 to 57) was conducted. All patients were diagnosed with distinctive somatoform disorders (F45), and presented the symptoms for at least 2 years. The interviews were transcribed verbatim and analysed independently by two researchers.

RESULTS Four major themes emerged: (1) experiences of symptoms; (2) explanations for symptoms; (3) coping; (4) expectations about healthcare. Within the first theme, the patients identified the following sub-themes: persistence of symptoms or variability, and negative emotions. Patients who observed that their symptoms had changed over time were better disposed to accept the existence of a relationship between the symptoms and the mind. The second theme embraced the following sub-themes: (1) personal explanations; (2) social explanations; (3) somatic explanations. The most effective coping strategies the patients mentioned included: the rationalization of the symptoms, self-development and ignoring the symptoms. The majority of our respondents had no expectations from the healthcare system, and stated they did not use medical services; instead, they admitted to visiting psychologists or psychiatrists privately.

CONCLUSION Patients with MUS have their own experiences of illness. They undertake attempts to interpret their symptoms and learn to live with them. The role of the GP in this process is significant, especially when access to psychological help is restricted. Management of patients with MUS in the Polish healthcare system can be improved, if access to psychologists and psychotherapists is facilitated and increased financial resources are allocated for primary care. Patients with MUS can benefit from a video/filmed consultation with a follow-up analysis with their GP.

A Description of 'Australian Lyme Disease' Epidemiology and Impact: An Analysis of Submissions to an Australian Senate Inquiry.

Author(s): Brown, Jeremy D

Source: Internal medicine journal; Jan 2018

Publication Type(s): Journal Article

Abstract:BACKGROUND Many Australian patients are diagnosed and treated for the scientifically and politically controversial diagnosis of an endemic form of 'Australian Lyme Disease'. Patient advocacy led Senator John Madigan to propose an Australian Senate Inquiry into this illness. AIMSTo describe the symptomology and outcomes of patients diagnosed and treated with Lyme disease in Australia.

METHODS All public, first-person submissions (n = 698) to the inquiry were reviewed and responses analysed for epidemiology, symptoms and impact against structured criteria.

RESULTS The most common symptoms described were fatigue (62.6%), disordered thinking (51.9%) and sensory disturbance (46.1%). Respondents reported experiencing symptoms for a median of 10 years and spent a median of $30000 on diagnosis and treatment. Almost 10% of respondents self-diagnosed after being exposed to a media report of Australian Lyme disease.

CONCLUSION Patients diagnosed with Lyme disease in Australia display a symptomology similar to 'medically unexplained physical symptoms' syndromes, experience social and financial harms, and are at risk of nosocomial harms. Negative medical interactions and the media may contribute to patients seeking alternative and potentially non-evidence based diagnoses and treatments.
Conversion, Factitious Disorder and Malingering: A Distinct Pattern or a Continuum?

**Author(s):** Galli, Silvio; Tatu, Laurent; Bogousslavsky, Julien; Aybek, Selma

**Source:** Frontiers of neurology and neuroscience; 2018; vol. 42; p. 72-80

**Publication Type(s):** Journal Article

**Abstract:** This chapter is aimed at highlighting the recent findings concerning physiopathology, diagnosis, and management of conversion, factitious disorder, and malingering. Conversion disorder is the unintentional production of neurological symptom, whereas malingering and factitious disorder represent the voluntary production of symptoms with internal or external incentives. They have a close history and this has been frequently confounded. Practitioners are often confronted to medically unexplained symptoms; they represent almost 30% of neurologist's consultation. The first challenge is to detect them, and recent studies have confirmed the importance of "positive" clinical bedside signs based on incoherence and discordance, such as the Hoover's sign for the diagnosis of conversion disorder. Functional neuroimaging has allowed a better understanding of the pathophysiology, and highlighted abnormal cerebral activation patterns in conversion disorder in relation to motor, emotional, and limbic networks, different from feigners. This supports the theory evoked by Charcot of a "psychodynamic lesion," which is also reflected by the new term introduced in the DSM-5: functional neurological disorder. Multidisciplinary therapy is recommended with behavioral cognitive therapy, antidepressant to treat frequent comorbid anxiety or depression, and physiotherapy. Factitious disorder and malingering should be clearly delineated from conversion disorder. Factitious disorder should be considered as a mental illness and more research on its physiopathology and treatment is needed, when malingering is a non-medical condition encountered in medico-legal cases.

Munchausen/ Fictitious Illness and disease/ Malingering

**Anaphylaxis.**

**Author(s):** Loverde, Daniel; Iweala, Onyinye I.; Eginli, Ariana; Krishnaswamy, Guha

**Source:** CHEST; Feb 2018; vol. 153 (no. 2); p. 528-543

**Publication Type(s):** Academic Journal

**Abstract:** Anaphylaxis is a systemic, life-threatening disorder triggered by mediators released by mast cells and basophils activated via allergic (IgE-mediated) or nonallergic (non-IgE-mediated) mechanisms. It is a rapidly evolving, multisystem process involving the integumentary, pulmonary, gastrointestinal, and cardiovascular systems. Anaphylaxis and angioedema are serious disorders that can lead to fatal airway obstruction and culminate in cardiorespiratory arrest, resulting in hypoxemia and/or shock. Often, these disorders can be appropriately managed in an outpatient setting; however, these conditions can be severe enough to warrant evaluation of the patient in the ED and in some cases, hospitalization, and management in an ICU. Reports suggest that underdiagnosis and undertreatment of anaphylaxis are common. Several new syndromes have been described recently including bird-egg, pork-cat, delayed allergy to mammalian meat and a diverse group of mast cell activation disorders. Conditions such as postural orthostatic tachycardia syndrome, carcinoid syndrome, Munchausen stridor, and factitious anaphylaxis can present similarly and need to be included in the differential diagnosis. Anaphylaxis is a clinical diagnosis, but plasma tryptase and urinary histamine levels are often elevated, allowing diagnostic confirmation; however, diagnostic testing should not delay treatment as results may not be immediately available. The sine qua non of treatment is avoidance of any known triggers and epinephrine, which should never be delayed if this disorder is suspected. Secondary treatments include fluids, bronchodilators, antihistamines, and...
glucocorticoids. Patients with cardiopulmonary arrest or airway or vascular compromise require mechanical ventilation, vaspressors, and other advanced life support in the ICU.

A novel wheeze.

**Author(s):** Perritt, E.; Dunlop, A.

**Source:** Anaesthesia; Jan 2018; vol. 73 (no. 1); p. 124-124

**Publication Type(s):** Academic Journal

**Abstract:** The article presents a case study of a young asthmatic patient, who showed an improvement in her oxygen saturation through a reservoir facemask, while she was rhythmically tapping her oxygen saturation probe against an adjacent finger, and mentions asthmatic manifestations of Munchausen's syndrome.

Factitious disorders and the adjudication of claims of physical and mental injury

**Author(s):** Hamilton, James C.; Kouchi, Kathryn A. K.

**Source:** Psychological Injury and Law; Jan 2018 ; p. No

**Publication Type(s):** Journal Peer Reviewed Journal

**Abstract:** Factitious disorder involves the deceptive presentation of oneself or another as genuinely ill, for psychological benefits, as opposed to purely material ones. Although factitious disorders have been officially recognized since the DSM-III, and over a thousand articles and chapters have been written on the topic, the research base in this area is poorly developed, owing to the elusive quality of people with factitious disorder. Nevertheless, the issue of whether physical or mental illnesses or injuries that arise in legal cases are genuine, malingered, or factitious must be addressed by mental health examiners who serve as expert witnesses in such cases. In this review, we define and describe factitious disorder, including factitious disorder imposed on the self and factitious disorder imposed on another. We review what little is known about it, contrast it with related conditions, and review legal cases in which the theory of the case developed by a plaintiff or defendant might relate to the question of whether factitious disorder is present. (PsycINFO Database Record (c) 2018 APA, all rights reserved) (Source: journal abstract)

**Trial 1 versus Trial 2 of the Test of Memory Malingering: Evaluating accuracy without a "gold standard"

**Author(s):** Mossman, Douglas; Wygant, Dustin B.; Gervais, Roger O.; Hart, Kathleen J.

**Source:** Psychological Assessment; Jan 2018; vol. 30 (no. 1); p. 74-85

**Publication Type(s):** Journal Peer Reviewed Journal Article

**Abstract:** This study examines the accuracy of the Test of Memory Malingering (TOMM), a frequently administered measure for evaluating effort during neurocognitive testing. In the last few years, several authors have suggested that the initial recognition trial of the TOMM (Trial 1) might be a more useful index for detecting feigned or exaggerated impairment than Trial 2, which is the source for inference recommended by the original instruction manual (Tombaugh, 1996). We used latent class modeling (LCM) implemented in a Bayesian framework to evaluate archival Trial 1 and Trial 2 data collected from 1,198 adults who had undergone outpatient forensic evaluations. All subjects were tested with 2 other performance validity tests (the Word Memory Test and the Computerized Assessment of Response Bias), and for 70% of the subjects, data from the California Verbal Learning Test–Second Edition Forced Choice trial were also available. Our results suggest that not even a perfect score on Trial 1 or Trial 2 justifies saying that an evaluee is definitely responding genuinely, although such scores imply a lower-than-base-rate probability of feigning. If one uses a Trial 2 cut-off
higher than the manual’s recommendation, Trial 2 does better than Trial 1 at identifying individuals who are almost certainly feigning while maintaining a negligible false positive rate. Using scores from both trials, one can identify a group of definitely feigning and very likely feigning subjects who comprise about 2 thirds of all feigners; only 1% of the members of this group would not be feigning. (PsycINFO Database Record (c) 2018 APA, all rights reserved) Impact statement

Public Significance Statement—This study compares two ways—a standard test method and a proposed new method—of learning whether someone is faking problems with memory. We used special mathematical techniques that let us evaluate the accuracy of both methods despite having no perfect way to tell whether someone was faking or not. We found that the standard method was at least as good as the proposed new method. (PsycINFO Database Record (c) 2018 APA, all rights reserved)

The development of a reaction time task to test inhibitory control as a mechanism for detecting malingered PTSD

Author(s): Shapiro, Emma M.
Source: Dissertation Abstracts International: Section B: The Sciences and Engineering; 2018; vol. 78 (no. 12)
Publication Type(s): Dissertation Abstract Dissertation
Abstract: This study investigated a new method of malingering detection for Posttraumatic Stress Disorder (PTSD) examining the ability to inhibit reactions to visual stimuli. This inhibition task was proposed as a supplement to self-report methods being evaluated in a larger study of PTSD malingering detection. The high prevalence of PTSD and accessibility of symptom profiles contribute to an increased incidence of malingering. In some settings a diagnosis of PTSD offers the potential for substantial compensation. Accurate PTSD diagnosis is essential to safeguard appropriate distribution of resources and treatment. Towards this end, reliance on automatic reactions in a performance-based paradigm for malingering detection reduces face validity and systematic manipulation of responses. Previous research on reaction times in PTSD demonstrated decreased latencies in response to traumatic stimuli using go/no-go designs, and a larger difference between PTSD and non-PTSD groups with increased executive burden by implementing a series of stop-signal trials. There is limited research examining malingered PTSD using the mixed, go/no-go and stop-signal paradigm described in this study. Participants included 135 community college students ranging in age from 18-49 (M= 21). Participants were randomly assigned to three groups (honest responders, true PTSD, and feigners) in a simulated malingering design. Analyses examined inhibition times and number of commission errors on traumatic and non-traumatic visual stimuli using a go/no-go and stop-signal paradigm. Results indicate an area of further inquiry surrounding deficits in executive control as a distinguishing factor for PTSD malingering detection. (PsycINFO Database Record (c) 2017 APA, all rights reserved)

Field validity of a measure of malingering with motor-vehicle accident claimants

Author(s): Yilmaz, Sadet
Source: Dissertation Abstracts International: Section B: The Sciences and Engineering; 2018; vol. 78 (no. 7)
Publication Type(s): Dissertation Abstract Dissertation
Abstract: role of psychological assessment in the detection of malingering is a complex one beleaguered by changing definitions criteria, varying methods for assessment, and challenges to the validity and reliability of measures currently used. Establishing valid and reliable measures, as well as normative values applicable to various clinical groups remains increasingly important, particularly in forensic settings. This study sought to evaluate the convergent and concurrent validity of the
Inventory of Problems (IOP; Viglione & Landis, 1998), a multi-method assessment tool in the
detection of malingering behaviors. More specifically, to increase the external validity of the IOP,
this study sought to validate the measure with a forensic sample, comparing results to commonly-
used measures in the detection of: exaggerated symptom endorsement with the Miller Forensic
Assessment of Symptoms Tests (MFAST; Miller, 2004) and poor effort with the Test of Memory of
Malingering (TOMM; Tombaugh, 2002). Two main hypotheses were analyzed, which revealed overall
mixed conclusions regarding the IOP’s validity, all of which will be discussed in the paragraphs below.
The results also reveal information about motor vehicle accidents claimants and
the character of
their exaggerations, which was addressed in this research as a contribution of the study. (PsycINFO
Database Record (c) 2017 APA, all rights reserved)

Identification of stimulant misuse and malingering of symptoms of attention deficit hyperactivity
disorder

Author(s): Ramachandran, Sujith

Source: Dissertation Abstracts International: Section B: The Sciences and Engineering; 2018; vol. 78
(no. 11)

Publication Type(s): Dissertation Abstract Dissertation

Abstract: It was estimated in 2013 that 54.3 million individuals reported overall lifetime prevalence
of prescription drug abuse, and 16.7 million individuals reported misusing or abusing prescription
drugs in the past year. This study focuses on the abuse of psychostimulants, popularly used for
treatment of Attention Deficit Hyperactivity Disorder (ADHD). It is estimated that 10 to 30% of
college students might be abusing stimulants, mostly for academic purposes. The incidence of
stimulant related ER visits has nearly doubled in the last decade. It is also estimated that 10 to 50%
of ADHD evaluations in a University setting might be exaggerated or malingered. This study, in three
parts, explored the feasibility of identification of prescription stimulant abuse using large databases,
developed a subtle behavioral self-reported scale, the Subtle ADHD Malingering Screener (SAMS),
for use in the primary care setting to identify malingering among individuals reporting symptoms of
ADHD, and compared the sensitivity of the SAMS to other existing scales. The first paper identified
two latent classes in the stimulant user population based on risk factors for abuse identified from
literature. The second paper developed a 10-item 2-factor screener instrument, the SAMS, with
satisfactory reliability and factorial validity. The third paper calculated a cut-off score for the SAMS,
and estimated a sensitivity of 90.3% and a specificity of 80.1% toward malingering of ADHD
symptoms. This dissertation pursued innovative methods to help in the early identification of
prescription stimulant abusers and malingerers, in order to reduce overdiagnosis of ADHD, and
abuse of prescription stimulants. (PsycINFO Database Record (c) 2017 APA, all rights reserved)

The vulnerability of self-reported disability measures to malingering: A simulated ADHD study

Author(s): Bryant, Andrew M.; Lee, Esther; Howell, Ashley; Morgan, Brittni; Cook, Carolyn M.

Source: The Clinical Neuropsychologist; Jan 2018; vol. 32 (no. 1); p. 109-118

Publication Type(s): Journal Peer Reviewed Journal Journal Article

Abstract: Objective: Making diagnostic and accommodation decisions for potential Attention-
Deficit/Hyperactivity Disorder (ADHD) in adults is difficult, as the assessor often relies more on self-
reported symptoms and functional disability than in childhood evaluations. Malingering of ADHD
occurs frequently in the educational setting and for a variety of reasons, including the potential
benefits of access to stimulant medications and academic accommodations. Method: The present
study utilized a simulation design to examine the potential for malingering of self-reported
functional disability on the World Health Organization Disability Schedule 2.0 (WHODAS).
Participants were 167 students from two Midwestern universities. Thirty-six self-reported a previous
diagnosis of ADHD, and the remaining 131 students were randomly assigned to one of three conditions: best effort, malingering for the purpose of receiving stimulant medication, or malingering for the purpose of receiving extra time accommodations. Results: Individuals in both malingering groups reported higher levels of disability on all domains of the WHODAS compared to healthy controls and individuals with ADHD. There were no significant differences between malingering groups. Conclusions: Results suggest the WHODAS is susceptible to non-credible responses and should not be relied upon solely as a measure of disability in the context of ADHD evaluations. (PsycINFO Database Record (c) 2018 APA, all rights reserved) (Source: journal abstract)

Fine-tuning cross-battery assessment procedures: After follow-up testing, use all valid scores, cohesive or not

Author(s): Schneider, W. Joel; Roman, Zachary

Source: Journal of Psychoeducational Assessment; Feb 2018; vol. 36 (no. 1); p. 34-54

Publication Type(s): Journal Peer Reviewed Journal Journal Article

Abstract: We used data simulations to test whether composites consisting of cohesive subtest scores are more accurate than composites consisting of divergent subtest scores. We demonstrate that when multivariate normality holds, divergent and cohesive scores are equally accurate. Furthermore, excluding divergent scores results in biased estimates of construct scores. We show that obtaining divergent scores should prompt additional testing under some conditions. Although there are many valid reasons to exclude scores from consideration (e.g., malingering, fatigue, and misunderstood directions), no score should be removed from a composite simply because it is different from other scores in the composite. (PsycINFO Database Record (c) 2018 APA, all rights reserved) (Source: journal abstract)

Examination of the Modified Somatic Perception Questionnaire (MSPQ) in a large sample of credible and noncredible patients referred for neuropsychological testing

Author(s): Balasanyan, Mariam; Boone, Kyle B.; Ermshar, Annette; Miora, Deborah;

Source: The Clinical Neuropsychologist; Jan 2018; vol. 32 (no. 1); p. 165-182

Publication Type(s): Journal Peer Reviewed Journal Journal Article

Abstract: Objective: The current study evaluated MSPQ sensitivity to noncredible PVT performance in the context of external incentive, and examined MSPQ false positive rates in noncompensation-seeking neuropsychology patients; and investigated effects of ethnicity/culture, gender, and somatoform diagnosis on MSPQ scores, and relationships with PVT and MMPI-2-RF data. Method: MSPQ scores were compared in credible (n = 110) and noncredible (n = 153) neuropsychology referrals. Results: Noncredible patients scored higher than credible patients. When the credible group was divided into those with somatoform orientation (n = 39) versus those without (n = 71), the credible nonsomatoform group scored lower than the other two groups, who did not differ from each other. MSPQ elevations were found in ethnic minorities, and in individuals who learned English as a second language or concurrently with another language. MSPQ elevations were also associated with chronic systemic diseases, neurologic illness, and substance abuse. Women scored higher than men, but men and women were equally represented among those patients scoring beyond cut-offs. MSPQ scores were minimally related to PVT data but were more strongly correlated with MMPI-2-RF scales, particularly over-report validity scales, RC1, and Somatic/Cognitive scales, with more widespread relationships observed in noncredible patients. Conclusions: A cut-off of 18 resulted in few false positives in credible nonsomatoform patients, and appears appropriate for identifying physical symptom over-report (due to malingering or somatoform orientations), with associated sensitivity of 29%. However, clinicians are cautioned regarding using the MSPQ in patients with systemic, neurologic, and substance abuse conditions, and in ethnic minorities and non-monolingual
Clinical utility of the Rey 15-item Test, recognition trial, and error scores for detecting noncredible neuropsychological performance in a mixed clinical sample of veterans

Author(s): Bailey, K. Chase; Soble, Jason R.; O'Rourke, Justin J. F.
Source: The Clinical Neuropsychologist; Jan 2018; vol. 32 (no. 1); p. 119-131
Publication Type(s): Journal Peer Reviewed Journal Journal Article
PubMedID: 28555516

Abstract: Objective: This cross-sectional study examined the Rey 15-Item Test (RFIT), Recognition Trial, and Error Scores for identifying noncredible performance in a mixed clinical veteran sample compared to another widely used validity measure, the Test of Memory Malingering (TOMM).
Method: Sixty-two veterans who completed the RFIT (Recall/Recognition Trials), TOMM, and Word Memory Test (WMT) during clinical evaluation were included. Using the WMT as the criterion, 71% (N = 44) were classified as valid and 29% (N = 18) as invalid. Results: Among valid participants, 25% failed the RFIT Recall, whereas 78% of invalid participants passed (sensitivity: 22%; specificity: 75%; diagnostic odds ratio [DOR]: .86). The Recognition Trial increased sensitivity to 39% for identifying invalid performance, but 25% of valid participants still scored below cut-off (specificity: 75%; DOR: 1.91). RFIT Recall and Recognition Trial logistic regression and receiver operating characteristic (ROC) analyses were nonsignificant, with respective classification accuracies of 71 and 72.6% and areas under the curve (AUCs) of .52 and .55. RFIT Error Scores also failed to differentiate validity groups. In contrast, TOMM had stronger psychometric properties (sensitivity: 50%; specificity: 97.7%; DOR: 43; classification accuracy: 82.3%; AUC: .91). Moreover, RFIT Recall and Recognition failure rates were 14 and 22% greater, respectively, among those with cognitive impairment, whereas 95% of those with impairment and 100% without passed the TOMM. Conclusion: Despite frequent use among VA neuropsychologists, the RFIT displayed limited ability to detect noncredible performance and misclassified a large percentage of valid participants in this mixed clinical veteran sample, suggesting limited utility with this population.

Best practices in addressing psycho-legal referrals: A survey of ABPP psychologists

Author(s): Maloff, Danielle
Source: Dissertation Abstracts International: Section B: The Sciences and Engineering; 2018; vol. 78 (no. 9)
Publication Type(s): Dissertation Abstract Dissertation

Abstract: The Supreme Court has posited that psychologists are highly qualified experts on a variety of issues related to mental illness, assessment, and treatment. Psychologists increasingly provide services that interface with the legal system. The need to utilize assessment protocols in accordance to the Daubert standard is imperative, not only to ensure the consistent use of best practices and ethical mandates, but also to assist the trier of the fact to evaluate experts. Previous research has shown that forensic psychologists are not consistent in their identification of assessment tools to address various psycho-legal issues. This study surveyed American Board of Professional Psychology (ABPP) psychologist in order to identify forensic assessment instruments that best meet the Daubert standard in assisting the trier of the fact. The study was designed to replicate an earlier 2003 study by Stephen J. Lally. It was presumed that research and the resultant dialogue that occurred from prior studies was likely to have caused a shift in assessment tool usage. If shifts have occurred in assessment procedures by ABPP psychologists, ethical and training implications would exist; if psychologists do not uniformly agree on best practices within the field, the Daubert Standard cannot
be satisfied. In addition, psychologists were surveyed about the assessment tools they deemed to be most crucial in the detection of feigned symptomatology, as considering the role of malingering is at the core of any psycho-legal assessment. (PsycINFO Database Record (c) 2017 APA, all rights reserved)

Validation of the Inventory of Problems in Detecting Feigned Combat-Related PTSD: A comparison utilizing combat veteran simulators and veterans endorsing a history of combat-related posttraumatic stress symptoms

Author(s): Burris, Emily Sarah

Source: Dissertation Abstracts International: Section B: The Sciences and Engineering; 2018; vol. 79 (no. 1)

Publication Type(s): Dissertation Abstract Dissertation

Abstract: Given the detrimental impact of malingering, many resources have been utilized in identifying various instruments that successfully detect the phenomena (Rogers & Bender, 2013). The Inventory of Problems (IOP; Viglione & Landis, 1994; Viglione, Giromini, & Landis, 2016; Viglione, Landis, Giromini, McCullaugh, O'Brien, Pizitz, & Wood, unpublished manuscript) is a measure that consolidates multiple deception detection strategies into a single measure by providing the empirical probability of malingering for a range of syndromes, including PTSD. Very few studies have examined methods designed to specifically detect feigned combat-related PTSD. The assessment of PTSD is complicated by the high rate of false-positive and false-negative rates of malingering, and the reliance on self-report of symptoms (Resnick, 2003), which can be easily obtained from numerous sources. The current study aims to evaluate the convergent, discriminative, and incremental validity of the IOP and IOP-29 to establish the measures as reliable for the detection of feigned combat-related PTSD. The IOP and IOP-29 will be administered alongside the Trauma Symptom Inventory-2 (TSI-2; Briere, 2011) and the Test of Memory Malingering (TOMM; Tombaugh, 1996). The measures will be administered to a psychiatric control group consisting of combat veterans that endorse a history of combat PTSD-related symptoms. The simulator group will consist of combat veterans who deny a history of PTSD-related symptoms. Simulators were provided with a role indication vignette that provided them with the common symptoms of PTSD and instructed them to respond to the measures as someone with PTSD utilizing their own combat experience as reference. Results of the study revealed mixed findings. The IOP and IOP-29 demonstrated convergent validity with the TOMM and IOP exhibiting the greatest classification accuracy between the patient and simulator groups. Unfortunately, the TSI-2 ATR scale performed poorly in the study and did not serve as an adequate comparison measure to examine further validity of the IOP. (PsycINFO Database Record (c) 2018 APA, all rights reserved)

Performance validity testing in a clinical sample of adults with sickle cell disease

Author(s): Dorociak, Katherine E.; Schulze, Evan T.; Piper, Lauren E.; Molokie, Robert E.; Janecek, Julie K.

Source: The Clinical Neuropsychologist; Jan 2018; vol. 32 (no. 1); p. 81-97

Publication Type(s): Journal Peer Reviewed Journal Journal Article

Abstract: Objective: Neuropsychologists utilize performance validity tests (PVTs) as objective means for drawing inferences about performance validity. The Test of Memory Malingering (TOMM) is a well-validated, stand-alone PVT and the Reliable Digit Span (RDS) and Reliable Digit Span-Revised (RDS-R) from the Digit Span subtest of the WAIS-IV are commonly employed, embedded PVTs. While research has demonstrated the utility of these PVTs with various clinical samples, no research has investigated their use in adults with sickle cell disease (SCD), a condition associated with multiple neurological, physical, and psychiatric symptoms. Thus, the purpose of this study was to explore PVT
performance in adults with SCD. Method: Fifty-four adults with SCD (M age = 40.61, SD = 12.35) were consecutively referred by their hematologist for a routine clinical outpatient neuropsychological evaluation. During the evaluation, participants were administered the TOMM (Trials 1 and 2), neuropsychological measures including the WAIS-IV Digit Span subtest, and mood and behavioral questionnaires. Results: The average score on the TOMM was 47.70 (SD = 3.47, range = 34–50) for Trial 1 and 49.69 (SD = 1.66, range = 38–50) for Trial 2. Only one participant failed Trial 2 of the TOMM, yielding a 98.1% pass rate for the sample. Pass rates at various RDS and RDS-R values were calculated with TOMM Trial 2 performance as an external criterion. Conclusions: Results support the use of the TOMM as a measure of performance validity for individuals with SCD, while RDS and RDS-R should be interpreted with caution in this population. (PsycINFO Database Record (c) 2018 APA, all rights reserved) (Source: journal abstract)

Determination of the smoking gun of intent: Significance testing of forced choice results in social security claimants

Author(s): Binder, Laurence M.; Chafetz, Michael D.
Source: The Clinical Neuropsychologist; Jan 2018; vol. 32 (no. 1); p. 132-144
Publication Type(s): Journal Peer Reviewed Journal Journal Article

Abstract:Objective: Significantly below-chance findings on forced choice tests have been described as revealing “the smoking gun of intent” that proved malingering. The issues of probability levels, one-tailed vs. two-tailed tests, and the combining of PVT scores on significantly below-chance findings were addressed in a previous study, with a recommendation of a probability level of .20 to test the significance of below-chance results. The purpose of the present study was to determine the rate of below-chance findings in a Social Security Disability claimant sample using the previous recommendations. Method: We compared the frequency of below-chance results on forced choice performance validity tests (PVTs) at two levels of significance, .05 and .20, and when using significance testing on individual subtests of the PVTs compared with total scores in claimants for Social Security Disability in order to determine the rate of the expected increase. Results: The frequency of significant results increased with the higher level of significance for each subtest of the PVT and when combining individual test sections to increase the number of test items, with up to 20% of claimants showing significantly below-chance results at the higher p-value. Conclusions: These findings are discussed in light of Social Security Administration policy, showing an impact on policy issues concerning child abuse and neglect, and the importance of using these techniques in evaluations for Social Security Disability. (PsycINFO Database Record (c) 2018 APA, all rights reserved) (Source: journal abstract)

Alexithymia as a potential source of symptom over-reporting: An exploratory study in forensic patients and non-forensic participants

Author(s): Merckelbach, Harald; Prins, Chinouk; Boskovic, Irena; Niesten, Isabella; À Campo, Joost
Source: Scandinavian Journal of Psychology; Jan 2018 ; p. No
Publication Type(s): Journal Peer Reviewed Journal

Abstract:The traditional interpretation of symptom over-reporting is that it indicates malingering. We explored a different perspective, namely that over-reporting of eccentric symptoms is related to deficits in articulating internal experiences (i.e., alexithymia). Given that alexithymia has been linked to sleep problems and that fatigue may fuel inattentive responding to symptom lists, we administered measures of alexithymia (TAS-20) and symptom over-reporting (SIMS), but also sleep quality (SLEEP-50) to forensic psychiatric outpatients (n = 40) and non-forensic participants (n = 40). Forensic patients scored significantly higher on all three indices than non-forensic participants. In the total sample as well as in subsamples, over-reporting correlated positively and significantly with
alexithymia, with rs being in the 0.50–0.65 range. Sleep problems were also related to over-reporting, but in the full sample and in the forensic subsample, alexithymia predicted variance in over-reporting over and above sleep problems. Although our study is cross-sectional in nature, its results indicate that alexithymia as a potential source of over-reporting merits systematic research. (PsycINFO Database Record (c) 2018 APA, all rights reserved) (Source: journal abstract)

The impact of effort by adolescents and young adults on neuropsychological measures; Investigating the need for effort testing when examining eligibility for standardized testing accommodations

Author(s): Rubin, Evan

Source: Dissertation Abstracts International Section A: Humanities and Social Sciences; 2018; vol. 78 (no. 11)

Publication Type(s): Dissertation Abstract Dissertation

Abstract: Neuropsychological effort has been extensively studied in adults involved in litigation; however, less is known about effort when examining adolescents and young adults for standardized testing accommodations. This study's purpose was to establish a baserate of poor effort and discover the most appropriate effort measures for 16-28 year olds undergoing neuropsychological assessments. This study involved 37 outpatient participants who were administered the Test of Memory Malingering (TOMM), Dyslexia Assessment of Simulation or Honesty (DASH), Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV), Reliable Digit Span (RDS), Woodcock Johnson tests of Achievement and Cognitive Abilities-Fourth Edition (WJ-IV), and Nelson Deny Reading Test (NDRT). None of the participants failed the TOMM; however, TOMM scores were significantly related to performance on Full Scale IQ (p<0.05), Processing Speed Index (p<0.05), and Passage Comprehension (p<0.01). The RDS was significantly related to performance on Passage Comprehension (p<0.05) and the pass/fail classifications demonstrated small to medium effect sizes in relation to FSIQ, Passage Comprehension, Reading Rate, and Standard Time Comprehension. The DASH Feigning Index was not significantly related to any subtests/indices, but pass/fail classifications demonstrated small to medium effect sizes in relation to FSIQ, PSI, Passage Comprehension, and Reading Rate. The TOMM and DASH Feigning Index were significantly related (Pearson Correlation=-0.494), and neither were related to RDS performance. Results indicate the need for continued research in this area. (PsycINFO Database Record (c) 2017 APA, all rights reserved)

Conversion, Factitious Disorder and Malingering: A Distinct Pattern or a Continuum?

Author(s): Galli, Silvio; Tatu, Laurent; Bogousslavsky, Julien; Aybek, Selma

Source: Frontiers of neurology and neuroscience; 2018; vol. 42 ; p. 72-80

Publication Type(s): Journal Article

Abstract: This chapter is aimed at highlighting the recent findings concerning physiopathology, diagnosis, and management of conversion, factitious disorder, and malingering. Conversion disorder is the unintentional production of neurological symptom, whereas malingering and factitious disorder represent the voluntary production of symptoms with internal or external incentives. They have a close history and this has been frequently confounded. Practitioners are often confronted to medically unexplained symptoms; they represent almost 30% of neurologist's consultation. The first challenge is to detect them, and recent studies have confirmed the importance of "positive" clinical bedside signs based on incoherence and discordance, such as the Hoover's sign for the diagnosis of conversion disorder. Functional neuroimaging has allowed a better understanding of the pathophysiology, and highlighted abnormal cerebral activation patterns in conversion disorder in relation to motor, emotional, and limbic networks, different from feigners. This supports the theory evoked by Charcot of a "psychodynamic lesion," which is also reflected by the new term introduced
in the DSM-5: functional neurological disorder. Multidisciplinary therapy is recommended with behavioral cognitive therapy, antidepressant to treat frequent comorbid anxiety or depression, and physiotherapy. Factitious disorder and malingering should be clearly delineated from conversion disorder. Factitious disorder should be considered as a mental illness and more research on its physiopathology and treatment is needed, when malingering is a non-medical condition encountered in medico-legal cases.

**Munchausen Syndrome and the Wide Spectrum of Factitious Disorders.**

**Author(s):** Tatu, Laurent; Aybek, Selma; Bogousslavsky, Julien  
**Source:** Frontiers of neurology and neuroscience; 2018; vol. 42 ; p. 81-86  
**Publication Type(s):** Journal Article  
**Abstract:** Since its initial description in 1851, Munchausen syndrome has been widely used interchangeably with factitious disorder. Nevertheless, this syndrome is only one form of factitious disorder that is both severe and chronic. The syndrome was named after Karl Friedrich Hieronymus, Baron von Münchhausen (1720-1797), a German nobleman who became famous as a narrator of false and exaggerated exploits. His name was progressively corrupted to Munchausen. Factitious disorders and Munchausen syndrome remain a great diagnosis challenge for physicians. All medical specialities are concerned by these disorders. The diagnosis process involves a first step to exclude an unusual presentation of a common medical condition. The second step consists of excluding somatoform disorders and malingering. Unfortunately, the boundaries between factitious disorder, somatization, and malingering are often unclear. In 1977, the term "Munchausen's syndrome by proxy" was coined to define a situation where a person produces false symptoms in another one, especially a child. This term was extended to similar interactions between human and pets. Because varied conditions have been included in the definition of this syndrome, there is ongoing debate about alternative names.

**Immunization with a Mixture of Nucleoprotein from Human Metapneumovirus and AbISCO-100 Adjuvant Reduces Viral Infection in Mice Model.**

**Author(s):** Diaz-Dinamarca, Diego A; Ibañez, Francisco J; Soto, Daniel A; Soto, Jorge A  
**Source:** Viral immunology; Jan 2018  
**Publication Type(s):** Journal Article  
**Abstract:** The human metapneumovirus (hMPV) is the second leading cause globally of acute infection of the respiratory tract in children, infecting the upper and lower airways. The hMPV may induce an inappropriate Th2-type immune response, which causes severe pulmonary inflammation, leading to the obstruction of airways. Despite its severe epidemiological relevance, no vaccines are currently available for the prevention of hMPV-induced illness. In this investigation, we demonstrated that immunization of mice with the recombinant hMPV nucleoprotein (hMPV-N) mixed with the AbISCO-100 adjuvant reduced viral replication in lungs following challenge with the virus. We found that immunized mice had reduced weight loss, decreased granulocytes in the lung, an increased level of specific nucleoprotein antibodies of IgG1 and IgG2a-isotypes, and a local profile of Th1/Th17-type cytokines. Our results suggest that immunization with the hMPV-N and the AbISCO-100 adjuvant induces a reduction of viral infection and could be considered for the development of an hMPV vaccine.

**The Dancing Manias: Psychogenic Illness as a Social Phenomenon.**

**Author(s):** Lanska, Douglas J  
**Source:** Frontiers of neurology and neuroscience; 2018; vol. 42 ; p. 132-141
Publication Type(s): Journal Article

Abstract: The dancing mania erupted in the 14th century in the wake of the Black Death, and recurred for centuries in central Europe - particularly Germany, the Netherlands, and Belgium - finally abating in the early 17th century. The term "dancing mania" was derived from "choreomania," a concatenation of choros (dance) and mania (madness). A variant, tarantism, was prevalent in southern Italy from the 15th to the 17th centuries, and was attributed at the time to bites from the tarantula spider. Affected individuals participated in continuous, prolonged, erratic, often frenzied and sometimes erotic, dancing. In the 14th century, the dancing mania was linked to a corruption of the festival of St. John's Day by ancient pagan customs, but by the 16th century it was commonly considered an ordeal sent by a saint, or a punishment from God for people's sins. Consequently, during outbreaks in the 14th and 15th centuries, the dancing mania was considered an issue for magistrates and priests, not physicians, even though the disorder proved intractable to decrees and exorcisms. However, in the 16th century Paracelsus discounted the idea that the saints caused or interceded in the cure of the dancing mania; he instead suggested a psychogenic or malingered etiology, and this reformulation brought the dancing mania within the purview of physicians. Paracelsus advocated various mystical, psychological, and pharmacological approaches, depending on the presumptive etiologic factors with individual patients. Only music provided any relief for tarantism. Later authors suggested that the dancing mania was a mass stress-induced psychosis, a mass psychogenic illness, a culturally determined form of ritualized behavior, a manifestation of religious ecstasy, or even the result of food poisoning caused by the toxic and psychoactive chemical products of ergot fungi. In reality, dancing manias did not have a single cause, but component causes likely included psychogenic illness, malingering, and ritualized behaviors.

Hierarchical Multicomponent Inorganic Metamaterials: Intrinsically Driven Self-Assembly at the Nanoscale.

Author(s): Levchenko, Igor; Bazaka, Kateryna; Keidar, Michael; Xu, Shuyan; Fang, Jinghua

Source: Advanced materials (Deerfield Beach, Fla.); Jan 2018; vol. 30 (no. 2)

Publication Type(s): Journal Article Review

Abstract: Increasingly intricate in their composition and structural organization, hierarchical multicomponent metamaterials with nonlinear spatially reconfigurable functionalities challenge the intrinsic constraints of natural materials, revealing tremendous potential for the advancement of biochemistry, nanophotonics, and medicine. Recent breakthroughs in high-resolution nanofabrication utilizing ultranarrow, precisely controlled ion or laser beams have enabled assembly of architectures of unprecedented structural and functional complexity, yet costly, time- and energy-consuming high-resolution sequential techniques do not operate effectively at industry-required scale. Inspired by the fictional Baron Munchausen's fruitless attempt to pull himself up, it is demonstrated that metamaterials can undergo intrinsically driven self-assembly, metaphorically pulling themselves up into existence. These internal drivers hold a key to unlocking the potential of metamaterials and mapping a new direction for the large-area, cost-efficient self-organized fabrication of practical devices. A systematic exploration of these efforts is presently missing, and the driving forces governing the intrinsically driven self-assembly are yet to be fully understood. Here, recent progress in the self-organized formation and self-propelled growth of complex hierarchical multicomponent metamaterials is reviewed, with emphasis on key principles, salient features, and potential limitations of this family of approaches. Special stress is placed on self-assembly driven by plasma, current in liquid, ultrasonic, and similar highly energetic effects, which enable self-directed formation of metamaterials with unique properties and structures.

Database: Medline

Comparison of Performance of the VIP and WMT in a Criminal Forensic Sample.
**Author(s):** Fazio, Rachel L; Denney, Robert L  
**Source:** Archives of clinical neuropsychology : the official journal of the National Academy of Neuropsychologists; Jan 2018  
**Publication Type(s):** Journal Article  
**Abstract:** Objective To compare the efficacy of the Validity Indicator Profile (VIP) and Word Memory Test (WMT) in a criminal forensic population. Method Potential participants included 225 male evaluatees from a maximum-security Federal prison referred for neuropsychological evaluation for either forensic purposes or for suspected neurocognitive dysfunction as part of a medical evaluation. Examinees were included in the analysis if administered the VIP (Verbal, Nonverbal, or both tests) and WMT along with at least two other freestanding PVTs; 74 satisfied these criteria. Participants were then categorized as having probable Malingered Neurocognitive Dysfunction (+MND) if they failed at least two freestanding validity indicators, negative for MND (-MND) if they passed all indicators, and Possible MND (pMND) if they failed one indicator. Results Groups were very demographically similar. There were significant differences in WMT scores and distribution of VIP profiles across groups. Whether using traditional or investigative cut scores, and whether using the WMT with or without consideration of a GMIP profile, the WMT demonstrated superior sensitivity and specificity on nearly every comparison. Conclusions The VIP, when interpreted in the traditional fashion, and the WMT with GMIP, both had more than adequate psychometric properties when used with criminal forensic evaluatees, strengthening the body of literature supporting their use for these types of evaluations. Counting a positive on either of the VIP subtests as an indication of +MND improves the psychometric properties of the VIP slightly, although the WMT had the better overall classification accuracy.

**Ganser Syndrome.**  
**Author(s):** Dieguez, Sebastian  
**Source:** Frontiers of neurology and neuroscience; 2018; vol. 42 ; p. 1-22  
**Publication Type(s):** Journal Article  
**Abstract:** Ganser’s syndrome is a rare and controversial condition, whose main and most striking feature is the production of approximate answers (or near misses) to very simple questions. For instance, asked how many legs a horse has, Ganser patients will reply “5”, and answers to plain arithmetic questions will likewise be wrong, but only slightly off the mark (e.g., 2 + 2 = 3). This symptom was originally described by Sigbert Ganser in 1897 in prisoners on remand and labeled Vorbeigehen (“to pass by”), although the term Vorbeireiden (“to talk beside the point”) is also frequently used. A number of associated symptoms were also reported: “clouding of consciousness,” somatoform conversion disorder, hallucinations, sudden and spontaneous recovery, subsequent amnesia for the episode, premorbid traumatic psychosocial experience and/or (usually mild) head trauma. Etiological, epidemiological and diagnostic issues have never been resolved for Ganser’s syndrome. Ganser saw it as a form of “twilight hysteria,” whereas others suggested that malingering, psychosis or dissociation were more appropriate labels, oftentimes combined with organic impairment and a subjectively intolerable psychosocial context. A central conundrum of Ganser’s syndrome is whether it could simultaneously be a cultural and pathological representation of insanity, whereas cognitive, organic, affective, motivational and social factors would converge towards a naïve idea of what mental illness should look like, especially through the provision of approximate answers.

**Validation of neuropsychological consequences in victims of intimate partner violence in a Spanish population using specific effort tests**  
**Author(s):** Marin Torices M.I.; Hidalgo-Ruzzante N.; Daugherty J.C.; Perez Garcia M.
Source: Journal of Forensic Psychiatry and Psychology; Jan 2018; vol. 29 (no. 1); p. 86-98
Publication Type(s): Article
Abstract: Neuropsychological consequences in female survivors of intimate partner violence are being used in courts as evidence of acquired injury and for criminal exculpation. To support the validity of neuropsychological test performance and the veracity of victim testimony, effort tests can be used by expert witnesses. Nevertheless, no study has evaluated whether the two principle types of effort tests, Symptom validity tests or Performance validity tests, are most adequate for this population. The study’s objective was to compare the false positive rates of a Performance validity test (Test of Memory Malingering: TOMM) and a Symptom validity test (Structured Inventory of Malingered Symptomatology: SIMS). The sample included 68 female intimate partner violence victims and 40 control females. SIMS showed a significantly higher rate of false positives in victims on four of five subtests, reaching a 59.3% in the total score. There were 0% false positives in both groups on the TOMM. Findings indicate that the SIMS may incorrectly score female IPV victims, undermining the victim’s testimony in judicial cases. Copyright © 2017 Informa UK Limited, trading as Taylor & Francis Group.

Functional Disorders


Author(s): Wegrzyk, Jennifer; Kebets, Valeria; Richiardi, Jonas; Galli, Silvio; de Ville, Dimitri Van; Aybek, Selma
Source: NeuroImage. Clinical; 2018; vol. 17 ; p. 163-168
Publication Type(s): Journal Article
Available at NeuroImage. Clinical - from Europe PubMed Central - Open Access
Abstract: BACKGROUND Motor functional neurological disorder (mFND) is a clinical diagnosis with reliable features; however, patients are reluctant to accept the diagnosis and physicians themselves bear doubts on potential misdiagnoses. The identification of a positive biomarker could help limiting unnecessary costs of multiple referrals and investigations, thus promoting early diagnosis and allowing early engagement in appropriate therapy. OBJECTIVES To test whether resting-state (RS) functional magnetic resonance imaging could discriminate patients suffering from mFND from healthy controls. METHODS We classified 23 mFND patients and 25 age- and gender-matched healthy controls based on whole-brain RS functional connectivity (FC) data, using a support vector machine classifier and the standard Automated Anatomic Labeling (AAL) atlas, as well as two additional atlases for validation. RESULTS Accuracy, specificity and sensitivity were over 68% (p = 0.004) to discriminate between mFND patients and controls, with consistent findings between the three tested atlases. The most discriminative connections comprised the right caudate, amygdala, prefrontal and sensorimotor regions. Post-hoc seed connectivity analyses showed that these regions were hyperconnected in patients compared to controls. CONCLUSION The good accuracy to discriminate patients from controls suggests that RS FC could be used as a biomarker with high diagnostic value in future clinical practice to identify mFND patients at the individual level.

Interpreting the Chinese version of quality of life questionnaire for functional digestive disorders

Author(s): Hou Z.-K.; Mi H.; Liu F.-B.; Chen X.-L.; Chen Z.-Q.; Che X.-L.; Wu Y.-H.
Source: Journal of Gastroenterology and Hepatology (Australia); 2018
Publication Type(s): Article In Press
Abstract: Background and Aim: The Chinese version quality of life questionnaire for functional digestive disorders (Chin-FDDQL) is a useful health assessment instrument for functional dyspepsia. This study aims to identify its score interpretation for clinical practice. Methods: Data of Chin-FDDQL from the functional dyspepsia patients (≥ 18 years) between November 2009 and April 2013 were enrolled in the 1st and 14th day. After baseline and responsiveness analysis, the single score interpretation and percentile ranks were established. The statistically reliable change was defined with effect size, standardized response mean, minimal detectable change, and others. Then the receiver operating characteristic curve analysis for health improvement was performed to define the clinically important change. Results: Two hundred two functional dyspepsia patients, 150 healthy participants, and 25 missing data were enrolled for analysis. Compared with the intake patients, the discharged and healthy persons have significant better health status in all domains (P < 0.001, except discomfort in discharged people, P = 0.142), totally contrast to missing data. The reliability for single total intake and discharge were both +/- 1. Based on score distribution, the 25th, 50th, and 75th percentile ranks were 49, 58, and 66 for intake scores and 59, 65, and 72 for discharge scores, respectively. The minimal detectable change and Reliable Change Index were 6 and 11 for total score. Receiver operating characteristic analyses supported that total score changes 4 or more represented minimal clinically important improvement. Conclusions: The score interpretation system of the Chin-FDDQL could assist clinician’s decision making during the therapy practice. Copyright © 2018 The Authors. Journal of Gastroenterology and Hepatology published by Journal of Gastroenterology and Hepatology Foundation and John Wiley & Sons Australia, Ltd.

Supplementary Motor Area Stroke Mimicking Functional Disorder.

Author(s): Mathew, Paul; Batchala, Prem Pradeep; Eluvathingal Muttikkal, Thomas Jose
Source: Stroke (00392499); Feb 2018; vol. 49 (no. 2)
Publication Type(s): Academic Journal

Attention Deficit Hyperactivity Disorder and Functional Defecation Disorders in Children.

Author(s): Kuizenga-Wessel, Sophie; Koppen, Ilan J N; Vriesman, Mana H; Di Lorenzo, Carlo
Source: Journal of pediatric gastroenterology and nutrition; Feb 2018; vol. 66 (no. 2); p. 244-249
Publication Type(s): Journal Article

Abstract: OBJECTIVESThe aim of the study was to assess the prevalence of attention deficit hyperactivity disorder (ADHD) in children presenting with functional defecation disorders (FDDs) and to assess the prevalence of FDDs in children with ADHD. METHODS A cross-sectional cohort study was carried out between September 2014 and May 2016. Group 1: Parents of children with FDDs according to the Rome III criteria completed the Child Behavior Checklist and the VvGK (Dutch questionnaire based on the American Disruptive Behavior Disorder rating scale). Patients with ADHD subarea scores ≥70 on the Child Behavior Checklist and/or ≥16 on the VvGK were referred for further psychiatric evaluation. Group 2: Parents of children treated for ADHD at a specialized ADHD outpatient clinic completed a standardized questionnaire regarding their child’s defecation pattern. RESULTS In group 1 (282 children with FDDs), 10.3% (7.1%-13.5% bias-corrected and accelerate confidence interval) were diagnosed with ADHD. Group 2 consisted of 198 children with ADHD, 22.7% (17.6-28.8 bias-corrected and accelerate confidence interval) fulfilled the Rome III criteria for an FDD. Children with both an FDD and ADHD reported urinary incontinence significantly more often compared to children with an FDD or ADHD alone: 57.1% in FDD+ADHD versus 22.8% in FDD alone (P < 0.001) and 31.1% in ADHD+FDD versus 7.8% in ADHD alone (P < 0.001). CONCLUSIONS Approximately 10.3% of children with FDDs had ADHD and 22.7% of children with a known diagnosis of ADHD fulfilled the Rome III criteria for an FDD. This observation
suggests that screening for behavioral disorders and FDDs should be incorporated into the diagnostic workup of these groups of children.

**Defining the functional gastrointestinal disorders is challenging: are clinical symptoms alone sufficient?**

**Author(s):** Black, Christopher J; Ford, Alexander C  
**Source:** Scandinavian journal of gastroenterology; Feb 2018; vol. 53 (no. 2); p. 140  
**Publication Type(s):** Journal Article

**Visceral hypersensitivity is associated with GI symptom severity in functional GI disorders: consistent findings from five different patient cohorts.**

**Author(s):** Simrén, Magnus; Törnblom, Hans; Palsson, Olafur S; van Tilburg, Miranda A L;  
**Source:** Gut; Feb 2018; vol. 67 (no. 2); p. 255-262  
**Publication Type(s):** Journal Article  
**Abstract:** OBJECTIVE Our aim was to evaluate the association between visceral hypersensitivity and GI symptom severity in large cohorts of patients with functional GI disorder (FGID) and to adjust for psychological factors and general tendency to report symptoms. DESIGN We included five cohorts of patients with FGIDs (IBS or functional dyspepsia; n=1144), who had undergone visceral sensitivity testing using balloon distensions (gastric fundus, descending colon or rectum) and completed questionnaires to assess GI symptom severity, non-GI somatic symptoms, anxiety and depression. Subjects were divided into sensitivity tertiles based on pain/discomfort thresholds. GI symptom severity was compared between sensitivity tertiles in each cohort and corrected for somatisation, and anxiety and depression. RESULTS In all five cohorts, GI symptom severity increased gradually with increasing visceral sensitivity, with significant differences in GI symptom severity between the sensitivity tertiles (p<0.0001), with small to medium effect sizes (partial η2: 0.047-0.11). The differences between sensitivity tertiles remained significant in all cohorts after correction for anxiety and depression, and also after correction for non-GI somatic symptom reporting in all of the cohorts (p<0.05). CONCLUSIONS A gradual increase in GI symptom severity with increasing GI sensitivity was demonstrated in IBS and functional dyspepsia, which was consistent across several large patient groups from different countries, different methods to assess sensitivity and assessments in different parts of the GI tract. This association was independent of tendency to report symptoms or anxiety/depression comorbidity. These findings confirm that visceral hypersensitivity is a contributor to GI symptom generation in FGIDs.

**Complete functional characterization of disease-associated genetic variants in the complement factor H gene.**

**Author(s):** Merinero, Héctor Martín; García, Sheila Pinto; García-Fernández, Jesús;  
**Source:** Kidney international; Feb 2018; vol. 93 (no. 2); p. 470-481  
**Publication Type(s):** Journal Article  
**Abstract:** Genetic analyses in atypical hemolytic uremic syndrome (aHUS) and C3-gomerulopathy (C3G) patients have provided an excellent understanding of the genetic component of the disease and informed genotype-phenotype correlations supporting an individualized approach to patient management and treatment. In this context, a correct categorization of the disease-associated gene variants is critical to avoid detrimental consequences for patients and their relatives. Here we describe a comprehensive procedure to measure levels and functional activity of complement
regulator factor H (FH) encoded by CFH, the commonest genetic factor associated with aHUS and C3G, and present the results of the analysis of 28 uncharacterized, disease-associated, FH variants. Sixteen variants were not expressed in plasma and eight had significantly reduced functional activities that impact on complement regulation. In total, 24 of 28 CFH variants were unambiguously categorized as pathogenic and the nature of the pathogenicity fully documented for each. The data also reinforce the genotype-phenotype correlations that associate specific FH functional alterations with either aHUS or C3G and illustrate important drawbacks of the prediction algorithms dealing with variants located in FH functional regions. We also report that the novel aHUS-associated M823T variant is functionally impaired. This was unexpected and uncovered the important contribution of regions outside the N-terminal and C-terminal functional domains to FH regulatory activities on surfaces. Thus, our work significantly advances knowledge towards a complete functional understanding of the CFH genetic variability and highlights the importance of functional analysis of the disease-associated CFH variants.

Comparison of Xenon-Enhanced Area-Detector CT and Krypton Ventilation SPECT/CT for Assessment of Pulmonary Functional Loss and Disease Severity in Smokers.

Author(s): Ohno, Yoshiharu; Fujisawa, Yasuko; Takenaka, Daisuke; Kaminaga, Shigeo;
Source: AJR. American journal of roentgenology; Feb 2018; vol. 210 (no. 2); p. W45
Publication Type(s): Journal Article
Abstract:OBJECTIVEThe objective of this study was to compare the capability of xenon-enhanced area-detector CT (ADCT) performed with a subtraction technique and coregistered 81mKr-ventilation SPECT/CT for the assessment of pulmonary functional loss and disease severity in smokers. SUBJECTS AND METHODSForty-six consecutive smokers (32 men and 14 women; mean age, 67.0 years) underwent prospective unenhanced and xenon-enhanced ADCT, 81mKr-ventilation SPECT/CT, and pulmonary function tests. Disease severity was evaluated according to the Global Initiative for Chronic Obstructive Lung Disease (GOLD) classification. CT-based functional lung volume (FLV), the percentage of wall area to total airway area (WA%), and ventilated FLV on xenon-enhanced ADCT and SPECT/CT were calculated for each smoker. All indexes were correlated with percentage of forced expiratory volume in 1 second (%FEV1) using step-wise regression analyses, and univariate and multivariate logistic regression analyses were performed. In addition, the diagnostic accuracy of the proposed model was compared with that of each radiologic index by means of McNemar analysis. RESULTS Multivariate logistic regression showed that %FEV1 was significantly affected (r = 0.77, r² = 0.59) by two factors: the first factor, ventilated FLV on xenon-enhanced ADCT (p < 0.0001); and the second factor, WA% (p = 0.004). Univariate logistic regression analyses indicated that all indexes significantly affected GOLD classification (p < 0.05). Multivariate logistic regression analyses revealed that ventilated FLV on xenon-enhanced ADCT and CT-based FLV significantly influenced GOLD classification (p < 0.0001). The diagnostic accuracy of the proposed model was significantly higher than that of ventilated FLV on SPECT/CT (p = 0.03) and WA% (p = 0.008). CONCLUSION Xenon-enhanced ADCT is more effective than 81mKr-ventilation SPECT/CT for the assessment of pulmonary functional loss and disease severity.

A case series of acceptance and commitment therapy (ACT) for reducing symptom interference in functional neurological disorders

Author(s): Graham, Christopher D.; O’Hara, Daniel J.; Kemp, Steven
Source: Clinical Psychology & Psychotherapy; Jan 2018 ; p. No
Publication Type(s): Journal Peer Reviewed Journal
Abstract:There is limited high-quality evidence supporting psychological treatments for functional neurological disorders (FNDs), and what evidence exists suggests that the impact of such treatments
could be improved. One way to increase effectiveness is to utilize approaches that can have impact across heterogeneous FND presentations. Acceptance and Commitment Therapy (ACT) targets a transdiagnostic process called psychological flexibility and is used effectively to integrate multidisciplinary treatments in other clinical contexts. Here, we present a consecutive case series (N = 8) of a relatively brief (6 to 10 sessions) ACT intervention, delivered face to face by a clinical psychologist in an outpatient neuropsychology service. Treatment aimed to reduce symptom interference and improve mood via improvements in psychological flexibility. Service users presented with a range of FND symptoms (e.g., syncope, limb paralysis, and paraesthesia). Following treatment, 5 participants showed reliable improvements in symptom interference (Work and Social Adjustment Scale), 2 to the extent of clinical significance; 4 had reliable improvements in mood (Clinical Outcomes in Routine Evaluation—10), and 2 within the range of clinical significance. There were no reliable deteriorations in symptom interference or mood. Marked variation was apparent on the measure of psychological flexibility (Acceptance and Action Questionnaire II), with 4 reliable improvements, 3 within the range of clinical significance, and also 2 reliable deteriorations. These promising results suggest that further investigation of an ACT approach to FND is warranted. Future studies should include measures of psychological flexibility with greater comprehensibility.

Increased emotional reactivity to affective pictures in patients with skin-picking disorder: Evidence from functional magnetic resonance imaging

Author(s): Wabnegger, Albert; Übel, Sonja; Suchar, Gerald; Schienle, Anne
Source: Behavioural Brain Research; Jan 2018; vol. 336; p. 151-155
Publication Type(s): Journal Peer Reviewed Journal Journal Article
Abstract: The predominant symptom of skin-picking disorder (SPD) is the recurrent picking of one’s own skin, leading to tissue damage and discomfort. Psychological disorder models suggest an enhanced emotional reactivity in patients with SPD, which contributes to the maintenance of symptoms. This functional magnetic resonance imaging (fMRI) experiment analyzed both subjective and neuronal responses to affective pictures (categories: fear, disgust, happiness, neutral) in 19 women with SPD and 16 healthy controls. Also, affective traits (disgust, anxiety, depression) were assessed. Those with SPD scored higher on trait anxiety/depression, and reported higher intensities of negative emotions experienced during the picture viewing. On the neuronal level, the clinical group showed enhanced localized brain activation to fear, disgust and happiness in the amygdala, the insula and the orbitofrontal cortex. These regions are part of a brain circuit mediating affective responses and affective awareness. The current fMRI study provides first data on the neuronal basis of elevated emotional reactivity to affective pictures in SPD. (PsycINFO Database Record (c) 2017 APA, all rights reserved) (Source: journal abstract)

Abnormal beta power is a hallmark of explicit movement control in functional movement disorders.

Author(s): Teodoro, Tiago; Meppelink, Anne Marthe; Little, Simon; Grant, Robert; Nielsen, Glenn
Source: Neurology; Jan 2018; vol. 90 (no. 3)
Publication Type(s): Academic Journal
Available at Neurology - from Ovid (Journals @ Ovid)
Abstract: Objective: To determine whether sensorimotor beta-frequency oscillatory power is raised during motor preparation in patients with functional movement disorders (FMD) and could therefore be a marker of abnormal “body-focused” attention. Methods: We analyzed motor performance and beta-frequency cortical oscillations during a precued choice reaction time (RT) task with varying cue validity (50% or 95% congruence between preparation and go cues). We compared
21 patients with FMD with 13 healthy controls (HCs). Results: In HCs, highly predictive cues were associated with faster RT and beta desynchronization in the contralateral hemisphere (contralateral slope -0.045 [95% confidence interval (CI) -0.057 to -0.033] vs ipsilateral -0.033 [95% CI -0.046 to -0.021], p < 0.001) and with a tendency for reaching lower contralateral end-of-preparation beta power (contralateral -0.482 [95% CI -0.827 to -0.137] vs ipsilateral -0.328 [95% CI -0.673 to 0.016], p = 0.069). In contrast, patients with FMD had no improvement in RTs with highly predictive cues and showed an impairment of beta desynchronization and lateralization before movement. Conclusions: Persistent beta synchronization during motor preparation could reflect abnormal explicit control of movement in FMD. Excessive attention to movement itself rather than the goal might maintain beta synchronization and impair performance.

Psychological factors influence the overlap syndrome in functional gastrointestinal disorders (FGIDs) among middle-aged women in South Korea.

Author(s): Jang, Seung-Ho; Ryu, Han-Seung; Choi, Suck-Chei; Lee, Hye-Jin; Lee, Sang-Yeol
Source: Women & Health; Jan 2018; vol. 58 (no. 1); p. 112-127
Publication Type(s): Academic Journal
Abstract: This study investigated the psychological factors related to the overlap syndrome, i.e., multiple gastrointestinal conditions that are part of functional gastrointestinal disorders (FGIDs) in the same individual and potentially related to quality of life (QOL) among women aged 45–60 years (n = 627) in South Korea. The study was undertaken between July 2014 and March 2015. Depressive and anxiety symptoms were ascertained using the Center for Epidemiologic Studies Depression scale (CES-D) and the Beck Anxiety Inventory (BAI), respectively. Negative cognition and the cognitive triad were identified using the Automatic Thoughts Questionnaire—Negative (ATQ-N) and the Cognitive Triad Inventory (CTI), respectively. Resilience and QOL were assessed using the Connor–Davidson Resilience Scale (CD-RISC) and World Health Organization Quality of Life scale abbreviated version (WHOQOL-BREF). Women with the overlap syndrome had the highest CES-D (mean = 16.66 ± 11.79, p < .001), BAI (mean = 17.46 ± 12.67, p < .001), and ATQ-N scores (mean = 53.61 ± 20.88, p < .001), followed by women with gastrointestinal disorders but without the overlap syndrome and healthy controls. Healthy controls had the highest WHOQOL-BREF score (mean = 77.69 ± 12.53, p < .001). After stepwise selection, the final model explained 61.8 percent of the variance in QOL. Thus, depressive symptoms, anxiety, negative cognition, cognitive triad, and resilience were significantly related to QOL in women with the overlap syndrome.

Physical Training in a Medical Fitness Room for Patients with Chronic Diseases: Functional and Metabolic Outcomes.

Author(s): Tayer-Shifman, Oshrat E; Bar-On, Yigal; Pereg, David; Hershko, Alon Y
Source: The Israel Medical Association journal : IMAJ; Jan 2018; vol. 1 (no. 20); p. 20-24
Publication Type(s): Journal Article
Abstract: BACKGROUND Physical inactivity is a pivotal factor in the development and progression of various chronic diseases. However, most fitness facilities exclude unhealthy individuals. Therefore, an exercise program that admits such patients is imperative. OBJECTIVE To evaluate the effectiveness of a fitness facility that admits adult subjects with multiple chronic diseases. METHODS We conducted a retrospective screening of patient records from the Medical Fitness Facility at Meir Medical Center, Israel. Intake of subjects was done by a multidisciplinary team. For each individual, personalized diet and exercise plans were developed and patients attended the facility twice a week. Each participant was evaluated at enrolment and after 4 months for well-being, metabolic parameters, exercise capacity, and laboratory blood tests. RESULTSA total
of 838 individuals were enrolled, mean age 57 years. Their medical conditions included dyslipidemia (48.8%), hypertension (37.6%), and diabetes mellitus (24.9%), followed by musculoskeletal problems (arthropathy 19%, lower back pain 16.1%) and ischemic heart disease (13.4%). Less common diagnoses were vascular diseases, pulmonary diseases, and malignancy. Only 40.5% of participants adhered to the regimen with advanced age being the best predictor for adherence. At the follow-up visit, body mass index was lower (31.2 vs. 30.2 kg/m2, P < 0.0001), exercise capacity increased (measured as maximal MET; 7.1 vs. 8.1, P < 0.0001), and well-being improved (measured by Short Form Survey [SF-36]; 69.3 vs. 76.0, P < 0.0001). CONCLUSIONS: We show that a fitness program for patients with multiple chronic diseases is feasible and effective in improving prognostic parameters, albeit significantly challenged by adherence limitations.

**Review article: the physiological effects and safety of peppermint oil and its efficacy in irritable bowel syndrome and other functional disorders.**

**Author(s):** Chumpitazi, B P; Kearns, G L; Shulman, R J

**Source:** Alimentary pharmacology & therapeutics; Jan 2018

**Publication Type(s):** Journal Article Review

**Abstract:** BACKGROUND: Peppermint oil has been used for centuries as a treatment for gastrointestinal ailments. It has been shown to have several effects on gastrointestinal physiology relevant to clinical care and management. AIM: To review the literature on peppermint oil regarding its metabolism, effects on gastrointestinal physiology, clinical use and efficacy, and safety. METHODS: We performed a PubMed literature search using the following terms individually or in combination: peppermint, peppermint oil, pharmacokinetics, menthol, oesophagus, stomach, small intestine, gallbladder, colon, transit, dyspepsia, nausea, abdominal pain, and irritable bowel syndrome. Full manuscripts evaluating peppermint oil that were published through 15 July 2017 were reviewed. When evaluating therapeutic indications, only randomised clinical trials were included. References from selected manuscripts were used if relevant. RESULTS: It appears that peppermint oil may have several mechanisms of action including: smooth muscle relaxation (via calcium channel blockade or direct enteric nervous system effects); visceral sensitivity modulation (via transient receptor potential cation channels); anti-microbial effects; anti-inflammatory activity; modulation of psychosocial distress. Peppermint oil has been found to affect oesophageal, gastric, small bowel, gall-bladder, and colonic physiology. It has been used to facilitate completion of colonoscopy and endoscopic retrograde cholangiopancreatography. Placebo controlled studies support its use in irritable bowel syndrome, functional dyspepsia, childhood functional abdominal pain, and post-operative nausea. Few adverse effects have been reported in peppermint oil trials. CONCLUSION: Peppermint oil is a natural product which affects physiology throughout the gastrointestinal tract, has been used successfully for several clinical disorders, and appears to have a good safety profile.

**Functional Gastrointestinal Disorders: All Roads Lead to Prevention.**

**Author(s):** Lu, Peter L; Saps, Miguel

**Source:** Clinical gastroenterology and hepatology : the official clinical practice journal of the American Gastroenterological Association; Jan 2018

**Publication Type(s):** Editorial

**Sleep quality and functional gastrointestinal disorders. A psychological issue.**

**Author(s):** Bouchoucha, Michel; Mary, Florence; Bon, Cyriaque; Bejou, Bakhtiar; Airinei, Gheorghe

**Source:** Journal of digestive diseases; Jan 2018
Publication Type(s): Journal Article

Abstract: BACKGROUND / AIMSSleep disorders are often associated with functional gastro-intestinal disorders (FGIDs). This study aims to evaluate the association of sleep disorders with specific FGIDs and to assess the related importance of psychological disorders.METHODS We included 1009 consecutive FGID patients (71% female), aged 48.2 ± 16.7 years (M±SD), BMI 26.9 ± 11.2 kg/m². These patients filled in a Rome III questionnaire and underwent a psychological evaluation on anxiety and depression. They were classified according to the importance of their sleep disorders using a 7-point grading scale: Groups 1 to 3, drowsiness (severe, moderate, mild); Group 4, no change; Groups 5 to 7, insomnia (mild, moderate, severe). Multinomial logistic regression using sleep group as a dependent variable with no sleep change as reference and BMI, FGIDs, anxiety and depression as independent variables was used for statistical analysis.RESULTS 667 patients (66%) reported change in sleep disorders: decreased sleep by 487 patients (48%), and increased sleep by 180 (18%), while 341 (34%) reported no change. Depression was lower in patients with no change in sleep pattern and increased with the importance of the sleep disorder (P < 0.001). State anxiety is associated with moderate drowsiness (P = 0.024), while trait anxiety is associated with mild insomnia (P = 0.048). Among FGIDs, only some FGIDs are associated with sleep disorders: chest pain, epigastric pain syndrome, IBS with constipation, diarrhea, bloating, fecal incontinence, proctalgia fugax.CONCLUSION This study leads us to consider that sleep disorders are associated with FGIDs, especially in the presence of depressive symptoms. Copyright © 2018 John Wiley & Sons, Ltd.


Author(s): Cai, Wei; Bharadia, Lalit; Juffrie, Mohammad; Cheah, Fook Choe; Quak, Seng Hock
Source: Pediatric gastroenterology, hepatology & nutrition; Jan 2018; vol. 21 (no. 1); p. 76-77

Multicenter observational study on functional bowel disorders diagnosed using Rome III diagnostic criteria in Japan.

Author(s): Ono, Masayoshi; Kato, Mototsugu; Miyamoto, Shuichi; Tsuda, Momoko
Source: Journal of gastroenterology; Jan 2018

Abstract: BACKGROUND The Rome III diagnostic criteria had been used to diagnose functional gastrointestinal disorders (FGIDs) world wide, and functional bowel disorders (FBDs) including irritable bowel syndrome (IBS) have recently attracted the attention of Japanese physicians. However, there have been few reports on the prevalence of FBDs diagnosed by the Rome III diagnostic criteria. AIMSThe aim of this study was to determine the prevalence of FBDs diagnosed according to the diagnostic criteria of Rome III in Japan.PATIENTS AND METHODS All patients who were booked for colonoscopy were enrolled from eight institutions in Japan. This study was a prospective observational study in the period from April 2013 to December 2013. Patients filled out FGID questionnaires of Rome III when they were waiting for colonoscopy.RESULTS Data for 1200 patients who underwent colonoscopy were analyzed. A total of 547 patients (45.6%) were diagnosed with FBDs. Out of those patients, 9.1% had IBS. According to the Rome III diagnostic criteria, 134 patients (11.2%) had functional bloating (FB), 73 (6.1%) had functional constipation (FC), 40 (3.3%) had functional diarrhea (FD), and 191 (15.9%) had unspecified functional bowel disorder (UFBD). Patients with FBDs had significantly higher rates of almost all symptoms (abdominal pain, hard or lumpy stools, loose or watery stools, and bloating) than those in the controls.CONCLUSIONS In Japan,
the prevalence of FBDs and IBS is high, similar to that in the US. Many patients with FBDs have multiple symptoms.

An Interactional Profile to Assist the Differential Diagnosis of Neurodegenerative and Functional Memory Disorders.

Author(s): Reuber, Markus; Blackburn, Daniel J; Elsey, Chris; Wakefield, Sarah; Ardern, Kerry A
Source: Alzheimer disease and associated disorders; Jan 2018
Publication Type(s): Journal Article
Abstract: OBJECTIVE Specialist services for dementia are seeing an increasing number of patients. We investigated whether interactional and linguistic features in the communication behavior of patients with memory problems could help distinguish between those with problems secondary to neurological disorders (ND) and those with functional memory disorder (FMD). METHODS In part 1 of this study, a diagnostic scoring aid (DSA) was developed encouraging linguists to provide quantitative ratings for 14 interactional features. An optimal cut-off differentiating ND and FMD was established by applying the DSA to 30 initial patient-doctor memory clinic encounters. In part 2, the DSA was tested prospectively in 10 additional cases analyzed independently by 2 conversation analysts blinded to medical information. RESULTS In part 1, the median score of the DSA was +5 in ND and -5 in FMD (P<0.001). The optimal numeric DSA cut-off (+1) identified patients with ND with a sensitivity of 86.7% and a specificity of 100%. In part 2, DSA scores of rater 1 correctly predicted 10/10 and those of rater 2 predicted 9/10 diagnoses. CONCLUSION This study indicates that interactional and linguistic features can help distinguish between patients developing dementia and those with FMD and could aid the stratification of patients with memory problems.

Cortical thickness alterations linked to somatoform and psychological dissociation in functional neurological disorders.

Author(s): Perez, David L; Matin, Nassim; Williams, Benjamin; Tanev, Kaloyan; Makris, Nikos
Source: Human brain mapping; Jan 2018; vol. 39 (no. 1); p. 428-439
Publication Type(s): Journal Article
Abstract: BACKGROUND Links between dissociation and functional neurological disorder (FND)/conversion disorder are well-established, yet the pathophysiology of dissociation remains poorly understood. This MRI study investigated structural alterations associated with somatoform and psychological dissociation in FND. We hypothesized that multimodal, paralimbic cingulo-insular regions would relate to the severity of somatoform dissociation in patients with FND. METHODS FreeSurfer cortical thickness and subcortical volumetric analyses were performed in 26 patients with motor FND and 27 matched healthy controls. Patients with high dissociation as measured by the Somatoform Dissociation Questionnaire-20 (SDQ) or Dissociative Experiences Scale (DES) were compared to controls in stratified analyses. Within-group analyses were also performed with SDQ and DES scores in patients with FND. All cortical thickness analyses were whole-brain corrected at the cluster-wise level. RESULTS Patients with FND and high somatoform dissociation (SDQ > 35) showed reduced left caudal anterior cingulate cortex (ACC) cortical thickness compared to controls. In within-group analyses, SDQ scores inversely correlated with left caudal ACC cortical thickness in patients with FND. Depersonalization/derealization scores positively correlated with right lateral occipital cortical thickness. Both within-group findings remained statistically significant controlling for trait anxiety/depression, borderline personality disorder and post-traumatic stress disorder, adverse life events, and motor FND subtypes in post-hoc analyses. CONCLUSION Using complementary between-group and within-group analyses, an inverse association between somatoform dissociation and left caudal ACC cortical thickness was observed in patients with FND. A positive relationship was also appreciated between depersonalization/derealization severity and
cortical thickness in visual association areas. These findings advance our neuropathobiological understanding of dissociation in FND. Hum Brain Mapp 39:428-439, 2018. © 2017 Wiley Periodicals, Inc.

**Allergic Proctocolitis Is a Risk Factor for Functional Gastrointestinal Disorders in Children.**

**Author(s):** Di Nardo, Giovanni; Cremon, Cesare; Frediani, Simone; Lucarelli, Sandra; Villa, Maria Pia

**Publication Type(s):** Journal Article

**Abstract:** OBJECTIVE To test the hypothesis that allergic proctocolitis, a cause of self-limiting rectal bleeding in infants, can predispose to the development of functional gastrointestinal disorders (FGIDs) later in childhood. STUDY DESIGN We studied a cohort of 80 consecutive patients diagnosed with allergic proctocolitis. Their sibling or matched children presenting to the same hospital for minor trauma served as controls. Parents of the patients with allergic proctocolitis and controls participated in a telephone interview every 12 months until the child was at least 4 years old. At that time, they were asked to complete the parental Questionnaire on Pediatric Gastrointestinal Symptoms, Rome III version. RESULTS Sixteen of the 160 subjects (10.0%) included in the study met the Rome III criteria for FGIDs. Among the 80 patients with allergic proctocolitis, 12 (15.0%) reported FGIDs, compared with 4 of 80 (5.0%) controls (P = .035). After adjustment for age and sex, the OR for FGIDs in allergic proctocolitis group was 4.39 (95% CI, 1.03-18.68). FGIDs were significantly associated with iron deficiency anemia, duration of hematochezia, and younger age at presentation. In a multivariate analysis, only the duration of hematochezia was significantly associated with the development of FGIDs (OR, 3.14; 95% CI, 1.72-5.74). CONCLUSIONS We have identified allergic proctocolitis as a new risk factor for the development of FGIDs in children. Our data suggest that not only infection, but also a transient early-life allergic inflammatory trigger may induce persistent digestive symptoms, supporting the existence of "postinflammatory" FGIDs.

**Performance of an algorithm-based approach to the diagnosis and management of functional gastrointestinal disorders: A pilot trial.**

**Author(s):** Linedale, E C; Mikocka-Walus, A; Vincent, A D; Gibson, P R; Andrews, J M

**Source:** Neurogastroenterology and motility : the official journal of the European Gastrointestinal Motility Society; Jan 2018; vol. 30 (no. 1)

**Publication Type(s):** Journal Article

**Abstract:** BACKGROUND Recent advances in the development of diagnostic criteria and effective management options for functional gastrointestinal disorders (FGIDs) have not yet been integrated into clinical practice. There is a clear need for the development and validation of a simple clinical pathway for the diagnosis and management of FGIDs which can be used in primary care. METHODS In this controlled pilot study, we designed and evaluated a non-specialist-dependent, algorithm-based approach for the diagnosis and management of FGIDs (ADAM-FGID). Patients referred to a tertiary referral center with clinically suspected functional gastrointestinal disorders were allocated to waitlist control or algorithm group. The algorithm group was screened for organic disease, and those without clinical alarms received a written FGID diagnosis and management options. All participants were followed up for 1 year. KEY RESULTSThe ADAM-FGID was found to be feasible and acceptable to both patients and primary healthcare providers. The diagnostic component identified that 39% of referrals required more urgent gastroenterological review than original triage category, with organic disease subsequently diagnosed in 31% of these. The majority of patients (82%) diagnosed with a FGID did not receive a relevant alternative diagnosis during follow-up. Patient buy-in to the model was good, with all reading the diagnostic/management letter, 80% entering management, and 61% reporting symptom improvement at 6 weeks. Moreover, 68% of patients and all referring doctors found the approach to be at least moderately acceptable. Patients reported being reassured by the
approach and found the management options useful. Primary healthcare providers acknowledged the potential of this approach to reduce waiting times for endoscopic procedures and to provide reassurance to both patients and themselves.

CONCLUSIONS & INFERENCESThis pilot study provides preliminary evidence to support a clinical pathway for the diagnosis and management of FGIDs which does not depend upon specialist review. Further rigorous testing within primary care is needed to conclusively establish safety and efficacy. However, this approach is safer than current management and has potential to build capacity by reducing specialist burden and expediting effective care.

Exercise and physical activity for patients with end-stage liver disease: Improving functional status and sarcopenia while on the transplant waiting list.

Author(s): Duarte-Rojo, Andrés; Ruiz-Margáin, Astrid; Montaño-Loza, Aldo J

Source: Liver transplantation : official publication of the American Association for the Study of Liver Diseases and the International Liver Transplantation Society; Jan 2018; vol. 24 (no. 1); p. 122-139

Publication Type(s): Journal Article

Abstract:Sarcopenia and physical deconditioning are frequent complications in patients with cirrhosis and end-stage liver disease (ESLD). They are the end result of impaired dietary intake, chronic inflammation, altered macronutrient and micronutrient metabolism, and low physical activity. Frailty is the end result of prolonged sarcopenia and physical deconditioning. It severely affects a patient’s functional status and presents in approximately 1 in 5 patients on the liver transplantation waiting list. Sarcopenia, poor physical fitness/cardiopulmonary endurance (CPE), and frailty are all associated with increased mortality in ESLD. Clinical trials addressing the usefulness of exercise in patients with cirrhosis have shown that it improves the metabolic syndrome, sarcopenia, CPE, health-related quality of life, and hepatic venous pressure gradient. Although evidence on the benefits of exercise on clinical outcomes derived from large clinical trials is still missing, based on existing literature from multiple medical subspecialties, we believe that an exercise program coupled to a tailored nutritional intervention benefits both cardiopulmonary and musculoskeletal functions, ultimately translating into improved functional status, sense of well-being, and possibly less complications from portal hypertension. In conclusion, although supervised exercise training is the prevailing approach to manage ESLD patients, such intervention is not sustainable or feasible for most patients. Innovative home-based physical activity interventions may be able to effectively reach a larger number of patients. Liver Transplantation 24 122-139 2018 AASLD.

Development of the Aim to Decrease Anxiety and Pain Treatment for Pediatric Functional Abdominal Pain Disorders.

Author(s): Cunningham, Natoshia R; Nelson, Sarah; Jagpal, Anjana; Moorman, Erin; Farrell, Michael

Source: Journal of pediatric gastroenterology and nutrition; Jan 2018; vol. 66 (no. 1); p. 16-20

Publication Type(s): Journal Article

Abstract:OBJECTIVETo evaluate the feasibility and acceptability of the Aim to Decrease Anxiety and Pain Treatment (ADAPT), a brief, on-line and in-person behavioral intervention targeting pain and anxiety in youth with functional abdominal pain disorders (FAPDs).METHODSPatients were recruited from several outpatient pediatric gastroenterology clinics. Nine participants (ages 9-13) completed the full protocol. Thematic analysis of detailed qualitative feedback was obtained via semistructured patient and caregiver interviews after treatment was conducted. Feasibility and preliminary outcomes were examined using nonparametric tests.RESULTSPreliminary results indicate that the ADAPT treatment is feasible, acceptable, and potentially effective for youth with FAPD. Treatment completers reported that they enjoyed the program and used the skills to manage their pain and worry. Results also indicated that the majority of participants experienced a reduction in anxiety and
several reported reductions in pain and functional disability levels. CONCLUSIONS Findings from this study suggest that targeting both pain and anxiety may positively impact outcomes in youth with FAPD. The ADAPT intervention has the potential to provide a cost effective and practical application of cognitive behavioral therapy using an innovative combination of in-person and technology-based platforms. Overall, the ADAPT intervention is a promising and innovative intervention to improve the outcomes of youth with FAPD.


**Author(s):** Fysekidis, Marinos; Bouchoucha, Michel; Mary, Florence; Airinei, Gheorghe;

**Source:** Journal of gastroenterology and hepatology; Jan 2018; vol. 33 (no. 1); p. 195-202

**Publication Type(s):** Journal Article

**Abstract:** BACKGROUND AND AIMS Changes in appetite are a frequent complaint in patients with functional gastrointestinal disorders (FGIDs). The aims of this study are to evaluate whether the changes in appetite are associated with specific FGIDs and to explore associations of these changes with symptoms of anxiety or depression. METHODS This study included 1009 consecutive FGID patients (71% female), aged 48.9 years who all filled out a Rome III questionnaire for the evaluation of FGIDs, submitted to a psychological evaluation of symptoms of anxiety, and completed the Beck Depression Inventory questionnaire. The patients were classified according to their appetite change using a 7-point grading scale and split into three groups: those with appetite loss, those with no change in appetite, and those with increased appetite. RESULTS Among the 1009, 496 patients (49%) reported a change in appetite, of which 332 (33%) patients reported a decrease in appetite and 164 (16%) patients reported an increase in appetite. Appetite was not affected in 51% of patients. Changes in appetite depended on gender, body mass index and psychometric evaluation scores. Increased appetite did not have specific FGIDs associations, while decreased appetite was associated with esophageal, gastroduodenal, bowel, and anorectal symptoms. The presence of depressive symptoms was also a predictor for the majority of FGIDs in decreased appetite, while anxiety trait was significant for globus and dysphagia. CONCLUSIONS Decreased appetite was associated with FGIDs, especially in the presence of depressive symptoms. A reduced appetite would help to predict psychological disorders associated with FGIDs. FINANCIAL DISCLOSURE None declared. LEGAL REGISTRATION This study was a registered study in the French National Drug Agency (ANSM, Agence Nationale de Securité du Medicamentet des produits de santé, Study Number 2016-A01120-51). COMPETING INTERESTS Michel Bouchoucha, Marinos Fysekidis, Florence Mary, Gheorghe Airinei, Cyriaque Bon, and Robert Benamouzig have no competitive interests.

The most promising advances in our understanding and treatment of functional (psychogenic) movement disorders.

**Author(s):** Hallett, Mark

**Source:** Parkinsonism & related disorders; Jan 2018; vol. 46

**Publication Type(s):** Journal Article

**Abstract:** The name functional rather than psychogenic is getting to be more widely used for terminology of this condition. It is better accepted by patients and keeps an open mind in searching for greater understanding of the pathophysiology. Advances in the pathophysiology show an overactive limbic system with connections to the motor system. Moreover, there is a disruption of the self-agency network, possibly due to a failure of feedforward signaling. There has recently been more success in treating patients. The strongest evidence is for intensive physical therapy coupled with at least some psychological support. Psychotherapy with cognitive behavioral therapy may well also be useful.

**Author(s):** Perez, David L; Williams, Benjamin; Matin, Nassim; Mello, Julie; Dickerson, Bradford C;

**Source:** Journal of neurology, neurosurgery, and psychiatry; Jan 2018

**Publication Type(s):** Letter

Available at [Journal of neurology, neurosurgery, and psychiatry](https://www.ncbi.nlm.nih.gov/pubmed/29225988) - from BMJ Journals - NHS

Functional Categorization of Disease Genes Based on Spectral Graph Theory and Integrated Biological Knowledge.

**Author(s):** Sreeja, A; Krishnakumar, U; Vinayan, K P

**Source:** Interdisciplinary sciences, computational life sciences; Jan 2018

**Publication Type(s):** Journal Article

**Abstract:** Interaction of multiple genetic variants is a major challenge in the development of effective treatment strategies for complex disorders. Identifying the most promising genes enhances the understanding of the underlying mechanisms of the disease, which, in turn leads to better diagnostic and therapeutic predictions. Categorizing the disease genes into meaningful groups even helps in analyzing the correlated phenotypes which will further improve the power of detecting disease-associated variants. Since experimental approaches are time consuming and expensive, computational methods offer an accurate and efficient alternative for analyzing gene-disease associations from vast amount of publicly available genomic information. Integration of biological knowledge encoded in genes are necessary for identifying significant groups of functionally similar genes and for the sufficient biological elucidation of patterns classified by these clusters. The aim of the work is to identify gene clusters by utilizing diverse genomic information instead of using a single class of biological data in isolation and using efficient feature selection methods and edge pruning techniques for performance improvement. An optimized and streamlined procedure is proposed based on spectral clustering for automatic detection of gene communities through a combination of weighted knowledge fusion, threshold-based edge detection and entropy-based eigenvector subset selection. The proposed approach is applied to produce communities of genes related to Autism Spectrum Disorder and is compared with standard clustering solutions.


**Author(s):** Zhang, Jin-Tao; Ma, Shan-Shan; Li, Chiang-Shan R; Liu, Lu; Xia, Cui-Cui; Lan, Jing

**Source:** Addiction biology; Jan 2018; vol. 23 (no. 1); p. 337-346

**Publication Type(s):** Journal Article

**Abstract:** Psychobehavioral intervention is an effective treatment of Internet addiction, including Internet gaming disorder (IGD). However, the neural mechanisms underlying its efficacy remain unclear. Cortical-ventral striatum (VS) circuitry is a common target of psychobehavioral interventions in drug addiction, and cortical-VS dysfunction has been reported in IGD; hence, the primary aim of the study was to investigate how the VS circuitry responds to psychobehavioral interventions in IGD. In a cross-sectional study, we examined resting-state functional connectivity of the VS in 74 IGD subjects (IGDs) and 41 healthy controls (HCs). In a follow-up craving behavioral intervention (CBI) study, of the 74 IGD subjects, 20 IGD subjects received CBI (CBI+) and 16 IGD subjects did not (CBI-). All participants were scanned twice with similar time interval to assess the effects of CBI. IGD subjects showed greater resting-state functional connectivity of the VS to left inferior parietal lobule (IPL), right inferior frontal gyrus and left middle frontal gyrus, in positive association with the severity of IGD. Moreover, compared with CBI-, CBI+ showed significantly greater decrease in VS-IPL
connectivity, along with amelioration in addiction severity following the intervention. These findings demonstrated that functional connectivity between VS and lIPL, each presumably mediating gaming craving and attentional bias, may be a potential biomarker of the efficacy of psychobehavioral intervention. These results also suggested that non-invasive techniques such as transcranial magnetic or direct current stimulation targeting the VS-IPL circuitry may be used in the treatment of Internet gaming disorders.

Neural stem cells and epilepsy: functional roles and disease-in-a-dish models.

Author(s): Thodeson, Drew M; Brulet, Rebecca; Hsieh, Jenny

Source: Cell and tissue research; Jan 2018; vol. 371 (no. 1); p. 47-54

Publication Type(s): Research Support, Non-u.s. Gov't Research Support, N.i.h., Extramural Research Support, U.s. Gov't, Non-p.h.s. Journal Article Review

Abstract: Epilepsy is a disorder of the central nervous system characterized by spontaneous recurrent seizures. Although current therapies exist to control the number and severity of clinical seizures, there are no pharmacological cures or disease-modifying treatments available. Use of transgenic mouse models has allowed an understanding of neural stem cells in their relation to epileptogenesis in mesial temporal lobe epilepsy. Further, with the significant discovery of factors necessary to reprogram adult somatic cell types into pluripotent stem cells, it has become possible to study monogenic epilepsy-in-a-dish using patient-derived neurons. This discovery along with some of the newest technological advances in recapitulating brain development in a dish has brought us closer than ever to a platform in which to study and understand the mechanisms of this disease. These technologies will be critical in understanding the mechanism of epileptogenesis and ultimately lead to improved therapies and precision medicine for patients with epilepsy.


Author(s): Aziz, Imran; Palsson, Olafur S; Törnbloom, Hans; Sperber, Ami D; Whitehead, William

Source: The American journal of gastroenterology; Jan 2018; vol. 113 (no. 1); p. 86-96

Publication Type(s): Journal Article

Abstract: OBJECTIVES The population prevalence of Rome IV-diagnosed functional gastrointestinal disorders (FGIDs) and their cumulative effect on health impairment is unknown. METHODS An internet-based cross-sectional health survey was completed by 5,931 of 6,300 general population adults from three English-speaking countries (2100 each from USA, Canada, and UK). Quota-based sampling was used to generate demographically balanced and population representative samples with regards to age, sex, and education level. The survey enquired for demographics, medication, surgical history, somatization, quality of life (QOL), doctor-diagnosed organic GI disease, and criteria for the Rome IV FGIDs. Comparisons were made between those with Rome IV-diagnosed FGIDs against non-GI (healthy) and organic GI disease controls. RESULTS The number of subjects having symptoms compatible with a FGID was 2,083 (35%) compared with 3,421 (57.7%) non-GI and 427 (7.2%) organic GI disease controls. The most frequently met diagnostic criteria for FGIDs was bowel disorders (n=1,665, 28.1%), followed by gastroduodenal (n=627, 10.6%), anorectal (n=440, 7.4%), esophageal (n=414, 7%), and gallbladder disorders (n=10, 0.2%). On average, the 2,083 individuals who met FGID criteria qualified for 1.5 FGID diagnoses, and 742 of them (36%) qualified for FGID diagnoses in more than one anatomic region. The presence of FGIDs in multiple regions was associated with increasing somatization, worse mental/physical QOL, more medical therapies, and a higher prevalence of abdominal surgeries; all P<0.001. Notably, individuals with FGIDs in multiple regions had greater somatization and worse QOL than organic GI disease.
CONCLUSIONS
Roughly a third of the general adult population fulfils diagnostic criteria for a Rome IV FGID. In a third of this subset multiple GI regions are involved and this overlap is associated with increased health impairment.

Effect of disease duration on functional outcomes and complications after arthrolysis in patients with elbow stiffness.

**Author(s):** Zheng, Wei; Song, Jialin; Sun, Ziyang; Liu, Jiazhi; Chen, Shuai; Fan, Cunyi

**Source:** Journal of shoulder and elbow surgery; Jan 2018

**Publication Type(s):** Journal Article

**Abstract:**

**HYPOTHESIS**
The purpose of this study was to determine the effect of a long duration of elbow stiffness on functional outcomes and complications after arthrolysis.

**METHODS**
Participants included consecutive patients with a long duration of elbow stiffness (≥5 years, n = 23) and control patients matched for age, sex, and initial injury type (n = 46). All patients underwent elbow arthrolysis combined with hinged external fixation between March 2014 and March 2016. At baseline and follow-up, we evaluated elbow motion (flexion, extension, supination, pronation, and range of motion) and patient-reported outcomes, including the Mayo Elbow Performance Score (MEPS) and visual analog scale for pain. Postoperative complications including infection, nerve dysfunction, and instability were recorded.

**RESULTS**
There were no significant differences in preoperative elbow pain, range of motion, or MEPS between groups. Postoperatively, pronation and the MEPS in patients with a long disease duration were inferior to those in control patients (P = .041 and P = .016, respectively). Patients with a long disease duration also had a significantly higher incidence of complications than control patients (P = .002). At final follow-up, 7 patients (30%) in the long disease duration group and 3 patients (7%) in the control group presented with nerve symptoms (P = .022).

**CONCLUSION**
A long duration of elbow stiffness may negatively influence functional outcomes and increase the risk of complications after arthrolysis.

Conversion Disorder

**Conversion, Factitious Disorder and Malingering: A Distinct Pattern or a Continuum?**

**Author(s):** Galli, Silvio; Tatu, Laurent; Bogousslavsky, Julien; Aybek, Selma

**Source:** Frontiers of neurology and neuroscience; 2018; vol. 42 ; p. 72-80

**Publication Type(s):** Journal Article

**Abstract:**

This chapter is aimed at highlighting the recent findings concerning physiopathology, diagnosis, and management of conversion, factitious disorder, and malingering. Conversion disorder is the unintentional production of neurological symptom, whereas malingering and factitious disorder represent the voluntary production of symptoms with internal or external incentives. They have a close history and this has been frequently confounded. Practitioners are often confronted to medically unexplained symptoms; they represent almost 30% of neurologist's consultation. The first challenge is to detect them, and recent studies have confirmed the importance of "positive" clinical bedside signs based on incoherence and discordance, such as the Hoover's sign for the diagnosis of conversion disorder. Functional neuroimaging has allowed a better understanding of the pathophysiology, and highlighted abnormal cerebral activation patterns in conversion disorder in relation to motor, emotional, and limbic networks, different from feigners. This supports the theory evoked by Charcot of a "psychodynamic lesion," which is also reflected by the new term introduced in the DSM-5: functional neurological disorder. Multidisciplinary therapy is recommended with behavioral cognitive therapy, antidepressant to treat frequent comorbid anxiety or depression, and physiotherapy. Factitious disorder and malingering should be clearly delineated from conversion disorder. Factitious disorder should be considered as a mental illness and more research on its
physiopathology and treatment is needed, when malingering is a non-medical condition encountered in medico-legal cases.

**Ganser Syndrome.**

**Author(s):** Dieguez, Sebastian

**Source:** Frontiers of neurology and neuroscience; 2018; vol. 42 ; p. 1-22

**Publication Type(s):** Journal Article

**Abstract:** Ganser’s syndrome is a rare and controversial condition, whose main and most striking feature is the production of approximate answers (or near misses) to very simple questions. For instance, asked how many legs a horse has, Ganser patients will reply "5", and answers to plain arithmetic questions will likewise be wrong, but only slightly off the mark (e.g., 2 + 2 = 3). This symptom was originally described by Sigbert Ganser in 1897 in prisoners on remand and labeled Vorbeggehen ("to pass by"), although the term Vorbeireden ("to talk beside the point") is also frequently used. A number of associated symptoms were also reported: "clouding of consciousness," somatoform conversion disorder, hallucinations, sudden and spontaneous recovery, subsequent amnesia for the episode, premorbid traumatic psychosocial experience and/or (usually mild) head trauma. Etiological, epidemiological and diagnostic issues have never been resolved for Ganser’s syndrome. Ganser saw it as a form of "twilight hysteria," whereas others suggested that malingering, psychosis or dissociation were more appropriate labels, oftentimes combined with organic impairment and a subjectively intolerable psychosocial context. A central conundrum of Ganser’s syndrome is whether it could simultaneously be a cultural and pathological representation of insanity, whereas cognitive, organic, affective, motivational and social factors would converge towards a naïve idea of what mental illness should look like, especially through the provision of approximate answers.

**Functional neurological symptom disorder (conversion disorder): A role for microglial-based plasticity mechanisms?**

**Author(s):** Stephenson C.P.; Baguley I.J.

**Source:** Medical Hypotheses; Feb 2018; vol. 111 ; p. 41-48

**Publication Type(s):** Article

**Abstract:** Functional Neurological Symptom Disorder (FND) is a relatively common neurological condition, accounting for approximately 3-6% of neurologist referrals. FND is considered a transient disorder of neuronal function, sometimes linked to physical trauma and psychological stress. Despite this, chronic disability is common, for example, around 40% of adults with motor FND have permanent disability. Building on current theoretical models, this paper proposes that microglial dysfunction could perpetuate functional changes within acute motor FND, thus providing a pathophysiological mechanism underlying the chronic stage of the motor FND phenotypes seen clinically. Core to our argument is microglia's dual role in modulating neuroimmunity and their control of synaptic plasticity, which places them at a pathophysiological nexus wherein coincident physical trauma and psychological stress could cause long-term change in neuronal networks without producing macroscopic structural abnormality. This model proposes a range of hypotheses that are testable with current technologies. Copyright © 2017

**Dissociation in psychiatric disorders: A meta-analysis of studies using the dissociative experiences scale**

**Author(s):** Lyssenko L.; Schmahl C.; Bockhacker L.; Vonderlin R.; Bohus M.; Kleindienst N.

**Source:** American Journal of Psychiatry; Jan 2018; vol. 175 (no. 1); p. 37-46
Publication Type(s): Article

Abstract: Objective: Dissociation is a complex, ubiquitous construct in psychopathology. Symptoms of dissociation are present in a variety of mental disorders and have been connected to higher burden of illness and poorer treatment response, and not only in disorders with high levels of dissociation. This meta-analysis offers a systematic and evidence-based study of the prevalence and distribution of dissociation, as assessed by the Dissociative Experiences Scale, within different categories of mental disorders, and it updates an earlier meta-analysis. Method: More than 1,900 original publications were screened, and 216 were included in the meta-analysis, comprising 15,219 individuals in 19 diagnostic categories. Results: The largest mean dissociation scores were found in dissociative disorders (mean scores .35), followed by posttraumatic stress disorder, borderline personality disorder, and conversion disorder (mean scores .25). Somatic symptom disorder, substance-related and addictive disorders, feeding and eating disorders, schizophrenia, anxiety disorder, OCD, and most affective disorders also showed mean dissociation scores .15. Bipolar disorders yielded the lowest dissociation scores (mean score, 14.8). Conclusions: The findings underline the importance of careful psychopathological assessment of dissociative symptoms in the entire range of mental disorders.

Non-Neurogenic Language Disorders: A Preliminary Classification

Author(s): Mendez M.F.

Source: Psychosomatics; Jan 2018; vol. 59 (no. 1); p. 28-35

Publication Type(s): Review

Abstract: Background Few publications deal with non-neurogenic language disorders (NNLDs), distinct from psychogenic speech disorders such as psychogenic dysphonia or stuttering. NNLDs are alterations in language owing to psychosomatic preoccupations, conversion disorder, psychiatric disorders, or other psychological reasons. Objective To identify and classify the range of NNLDs and their characteristics. Methods This review summarizes the literature on disturbances in language, broadly defined as the use of symbols for communication, which may have a psychogenic or psychiatric etiology. Results The literature suggests a classification for NNLDs that includes psychogenic aphasia with dysgrammatism; psychogenic "lalias" including oxylalia and agitolalia, palilalia and echolalia, xenolalia, glossolalia, and coprolalia; psychologically-mediated word usage; psychotic language; and psychogenic forms of the foreign accent syndrome. Conclusions Clinicians and researchers have insufficiently emphasized the presence of NNLDs, their characteristics, and their identification. Yet, these disorders may be the first or predominant manifestation of a psychologically-mediated illness. There are 2 steps to recognition. The first is to know how to distinguish NNLDs from the manifestations of neurogenic language impairments after a neurological evaluation. The second step is awareness of specific associated and examination features that suggest the presence of a NNLD. Copyright © 2018 The Academy of Psychosomatic Medicine.

Perda visual conversiva em post-operatorio de cirurgia de coluna: relato de caso

Postoperative visual loss due to conversion disorder after spine surgery: a case report

Author(s): Bezerra D.M.; Amorim M.A.S.; Bezerra E.M.; Silva Junior A.J.; Miranda D.B.D.

Source: Brazilian Journal of Anesthesiology; Jan 2018; vol. 68 (no. 1); p. 91-95

Publication Type(s): Article

Abstract: Background and objective Patients undergoing spinal surgeries may develop postoperative visual loss. We present a case of total bilateral visual loss in a patient who, despite having clinical and surgical risk factors for organic lesion, evolved with visual disturbance due to conversion disorder. Case report A male patient, 39 years old, 71 kg, 1.72 m, ASA I, admitted to undergo fusion and discectomy at L4-L5 and L5-S1. Venoclisis, cardioscopy, oximetry, NIBP; induction with
remifentanil, propofol and rocuronium; intubation with ETT (8.0 mm) followed by capnography and urinary catheterization for diuresis. Maintenance with full target-controlled intravenous anesthesia. During fixation and laminectomy, the patient developed severe bleeding and hypovolemic shock. After 30 minutes, hemostasis and hemodynamic stability was achieved with infusion of norepinephrine, volume expansion, and blood products. In the ICU, the patient developed mental confusion, weakness in the limbs, and bilateral visual loss. It was not possible to identify clinical, laboratory or image findings of organic lesion. He evolved with episodes of anxiety, emotional lability, and language impairment; the hypothesis of conversion syndrome with visual component was raised after psychiatric evaluation. The patient had complete resolution of symptoms after visual education and introduction of low doses of antipsychotic, antidepressant, and benzodiazepine. Other symptoms also regressed, and the patient was discharged 12 days after surgery. After 60 days, the patient had no more symptoms. Conclusions Conversion disorders may have different signs and symptoms of non-organic origin, including visual component. It is noteworthy that the occurrence of this type of visual dysfunction in the postoperative period of spinal surgery is a rare event and should be remembered as a differential diagnosis. Copyright © 2015 Sociedade Brasileira de Anestesiologia

Cortical thickness alterations linked to somatoform and psychological dissociation in functional neurological disorders

**Author(s):** Perez D.L.; Matin N.; Williams B.; Tanev K.; Dickerson B.C.; Makris N.; LaFrance W.C.

**Source:** Human Brain Mapping; Jan 2018; vol. 39 (no. 1); p. 428-439

**Publication Type(s):** Article

**Abstract:** Background: Links between dissociation and functional neurological disorder (FND)/conversion disorder are well-established, yet the pathophysiology of dissociation remains poorly understood. This MRI study investigated structural alterations associated with somatoform and psychological dissociation in FND. We hypothesized that multimodal, paralimbic cingulo-insular regions would relate to the severity of somatoform dissociation in patients with FND. Methods: FreeSurfer cortical thickness and subcortical volumetric analyses were performed in 26 patients with motor FND and 27 matched healthy controls. Patients with high dissociation as measured by the Somatoform Dissociation Questionnaire-20 (SDQ) or Dissociative Experiences Scale (DES) were compared to controls in stratified analyses. Within-group analyses were also performed with SDQ and DES scores in patients with FND. All cortical thickness analyses were whole-brain corrected at the cluster-wise level. Results: Patients with FND and high somatoform dissociation (SDQ > 35) showed reduced left caudal anterior cingulate cortex (ACC) cortical thickness compared to controls. In within-group analyses, SDQ scores inversely correlated with left caudal ACC cortical thickness in patients with FND. Depersonalization/derealization scores positively correlated with right lateral occipital cortical thickness. Both within-group findings remained statistically significant controlling for trait anxiety/depression, borderline personality disorder and post-traumatic stress disorder, adverse life events, and motor FND subtypes in post-hoc analyses. Conclusion: Using complementary between-group and within-group analyses, an inverse association between somatoform dissociation and left caudal ACC cortical thickness was observed in patients with FND. A positive relationship was also appreciated between depersonalization/derealization severity and cortical thickness in visual association areas. These findings advance our neuropathobiological understanding of dissociation in FND. Hum Brain Mapp 39:428-439, 2018. © 2017 Wiley Periodicals, Inc. Copyright © 2017 Wiley Periodicals, Inc.
Library Opening Times

Staffed hours: 8am-5pm, Monday to Friday
Swipe-card access: 7am-11pm, seven days a week

Level 5, Education and Research Centre
University Hospitals Bristol

Contact your Outreach Librarian:

Jo Hooper

library@uhbristol.nhs.uk
Ext. 20105