Riunione Annuale SIN Appulo-Lucana 2022

The Nicolaus Hotel
Via Cardinale Agostino Ciasca, 27 - Bari
Bari, 3-4 novembre 2022

STRESS, DEPRESSIONE ED EMICRANIA: INFLUENZA DI GENERE

Dott.ssa Marianna Delussi
Neurophysiopathology Unit
Referral Center Rare Disease - Huntington Disease
Basic Medical Sciences, Neurosciences and Sense Organs Department

"Aldo Moro" University, Bari, Italy

Table 1 Pain conditions showing differential prevalence between men and women [9, 15–17]

Female prevalence	*Male prevalence*	*No sex prevalence*
Head and neck	**Head and neck**	**Head and neck**
Migraine with and without aura	Cluster headache	Acute tension-type headache
Chronic tension-type headache	Post-traumatic headache	Toothache due to dentinoenamel defects
Chronic paroxysmal hemicrania	SUNCT syndrome (Short-lasting Unilateral Neuralgiform headache attacks with Conjunctival injection and Tearing)	Toothache due to pulpits
Hemicrania continua	**Lesions or diseases of the nervous system**	Cracked tooth syndrome
Hypnic headache	Brachial plexus avulsion	Stylohyoid process syndrome
Primary stabbing headache	Postherpetic neuralgia	**Lesions or diseases of the nervous system**
Post-dural puncture headache	Meralgia paresthetica	Secondary trigeminal neuralgia
Cervicogenic headache	Lateral femoral cutaneous neuropathy	Neuralgia of nervus intermedius
Periapical periodontitis and abscess	Pain associated with Pancoast tumor	Painful ophthalmoplegia
Atypical odontalgia	Raeder paratrigeminal syndrome	Vagus nerve neuralgia
Burning mouth syndrome	**Vascular & hematologic origin**	Thoracic outlet syndrome
Carotidynia	Thromboangiitis obliterans	Brachial plexus tumors
Temporal arteritis	Coronary artery disease (before age 65 years)	Postherpetic neuralgia
Lesions or diseases of the nervous system	Erythromelalgia (over 50 years)	Maxillary sinusitis
Trigeminal neuralgia (tic douloureux)	**Gastrointestinal tract & visceral organs**	Dry socket
Carpal tunnel syndrome	Pancreatic disease	Pain in Parkinson's disease
Causalgia	Duodenal disease	**Gastrointestinal tract & visceral organs**
Reflex sympathetic dystrophy	Abdominal migraine	Esophageal motility disorders
Pain in multiple sclerosis	**Myofascial and osteoarticular pains**	Chronic gastric ulcer
Occipital neuralgia	Hemophilic arthropathy	Crohn's disease
Vascular & hematologic origin	Ankylosing spondylitis	Diverticular disease of the colon
Chronic venous insufficiency	Gout (after age 60 years)	Carcinoma of the colon
Acute intermittent porphyria	Osteoarthritis (before age 45 years)	**Pain of vascular & hematologic origin**
Raynaud's disease		Familial Mediterranean fever
Chilblains/Pernio		Hereditary coproporphyria
Livedo reticularis (after age 40 years)		
Gastrointestinal tract & visceral organs		
Esophagitis		
Reflux esophagitis with peptic ulcer		
Gallbladder disease		
Post-cholecystectomy syndrome		
Irritable bowel syndrome		
Bladder pain syndrome		
Proctalgia fugax		
Myofascial and osteoarticular pain		
Piriformis syndrome		
Peroneal muscular atrophy		
Rheumatoid arthritis		
Fibromyalgia and chronic widespread pain		
Gout (before age 60 years)		
Slipping rib syndrome		
Twelfth rib syndrome		
Temporomandibular disorder pain		
Back pain (postmenopausal)		

Prevalenza di sindromi da dolore cronico nel sesso femminile? ..dipende

Pain Ther (2021) 10:287–314
https://doi.org/10.1007/s40122-021-00244-1

REVIEW

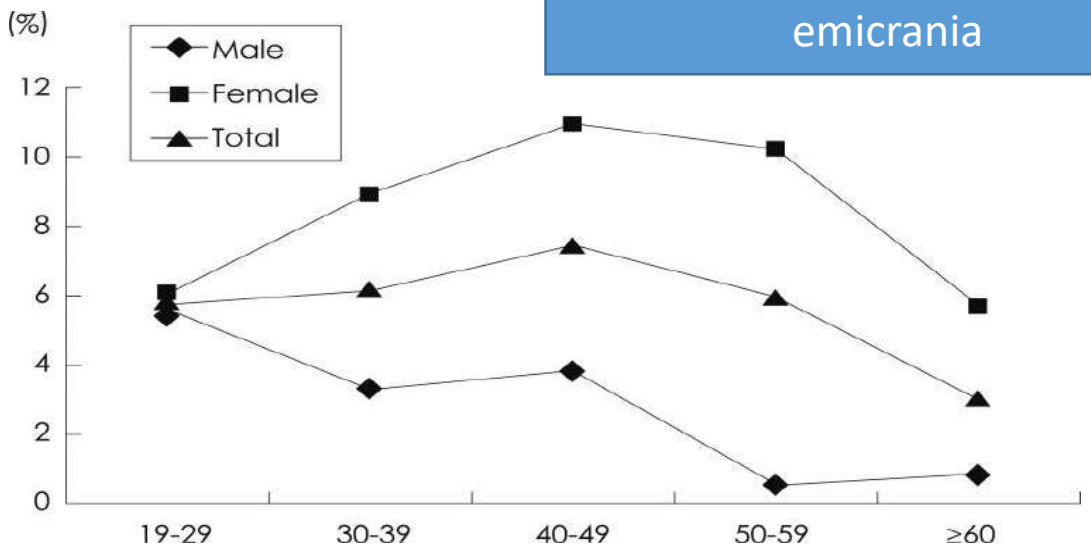
Pain in Women: A Perspective Review on a Relevant Clinical Issue that Deserves Prioritization

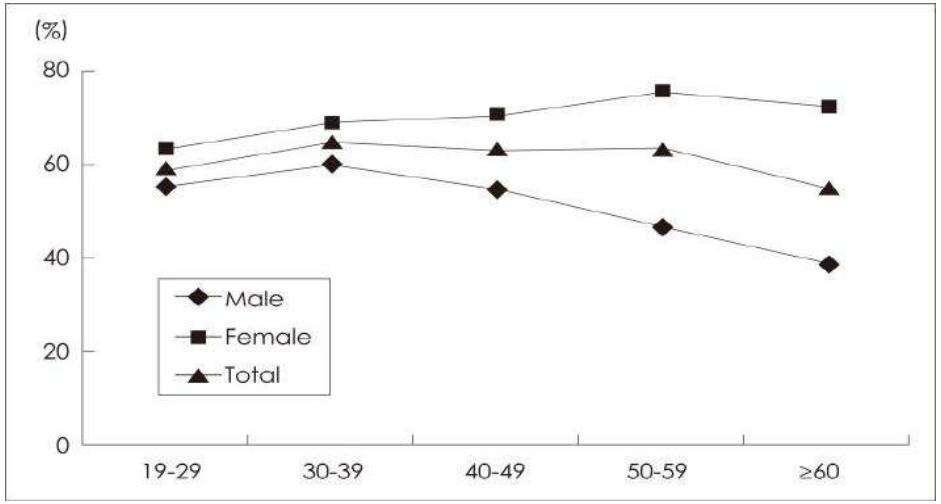
Roberto Casale · Fabiola Atzeni · Laura Bazzichi · Giovanna Beretta · Elisabetta Costantini · Paola Sacerdote · Cristina Tassorelli

Prevalenza in 1 anno

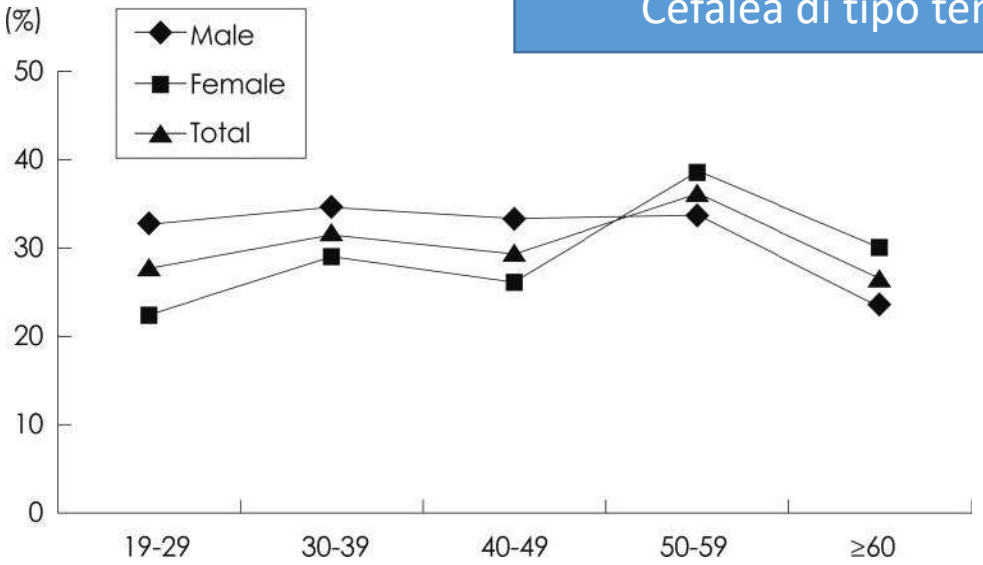
Prevalenza di sindromi da dolore cronico nel sesso femminile?
dipende….

emicrania





Cefalea di tipo tensivo



Tutte le cefalee primarie

J Clin Neurol. 2012 Sep; 8(3): 204–211.

Nella neuropatia diabetica, la sensibilità al dolore è più elevata che nei pazienti di sesso maschile

Journal of the Neurological Sciences 388 (2018) 103–106

Contents lists available at ScienceDirect

Journal of the Neurological Sciences

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

Sex differences in neuropathic pain intensity in diabetes

Alon Abraham[a,*], Carolina Barnett[b], Hans D. Katzberg[b], Leif E. Lovblom[c], Bruce A. Perkins[c], Vera Bril[b]

Diversa manifestazione fenotipica del dolore cronico nelle donne? Dipende….

Demographics, symptoms, sensory findings, and TCNS scores in 128 patients with type II diabetes and diabetic polyneuropathy (cohort #2).

	Males (n = 84)	Females (n = 44)	p-value
Age	63 ± 14	59 ± 14	0.13
DM duration (years)	13 ± 11	15 ± 10	0.61
HbA1c (%)	7.3 ± 1.8	7.9 ± 2.1	0.23
Symptoms			
Duration (years)	5	6	0.68
Pain (%)	46	60	0.14
NRS (0–10)	6.9 ± 2.5	8.5 ± 1.7	**0.02**
Numbness (%)	72	65	0.43
Tingling (%)	52	56	0.72
Upper limb (%)	41	58	0.08
Weakness (%)	41	34	0.48
Ataxia (%)	65	71	0.50
Weakness (%)	41	34	0.48
Sensory deficits			
Pinprick (%)	77	76	0.84
Temperature (%)	73	61	0.18
Light Touch (%)	53	57	0.69
Vibration (%)	76	70	0.46
Proprioception (%)	37	30	0.58
TCNS scores			
Symptoms	2.7 ± 1.3	3 ± 1.5	0.32
Sensory deficits	2.9 ± 1.7	2.8 ± 1.7	0.68
Reflexes	4 ± 2.7	4.42 ± 2.84	0.44
Total	9.74 ± 4.1	10.2 ± 4.5	0.62

DM – Diabetes Mellitus; NRS – numerical rating scale. Statistically significant p values (< 0.05) are bolded.

Current Pain and Headache Reports (2022) 26:347–355
https://doi.org/10.1007/s11916-022-01034-w

CHRONIC DAILY HEADACHE (SJ WANG AND SP CHEN, SECTION EDITORS)

Sex Differences in Chronic Migraine: Focusing on Clinical Features, Pathophysiology, and Treatments

Chia-Kuang Tsai[1] · Chia-Lin Tsai[1] · Guan-Yu Lin[1] · Fu-Chi Yang[1] · Shuu-Jiun Wang[2,3,4]

Diversa manifestazione fenotipica del dolore cronico nelle donne? Dipende….

Table 1 Clinical features of male and female patients with chronic migraine

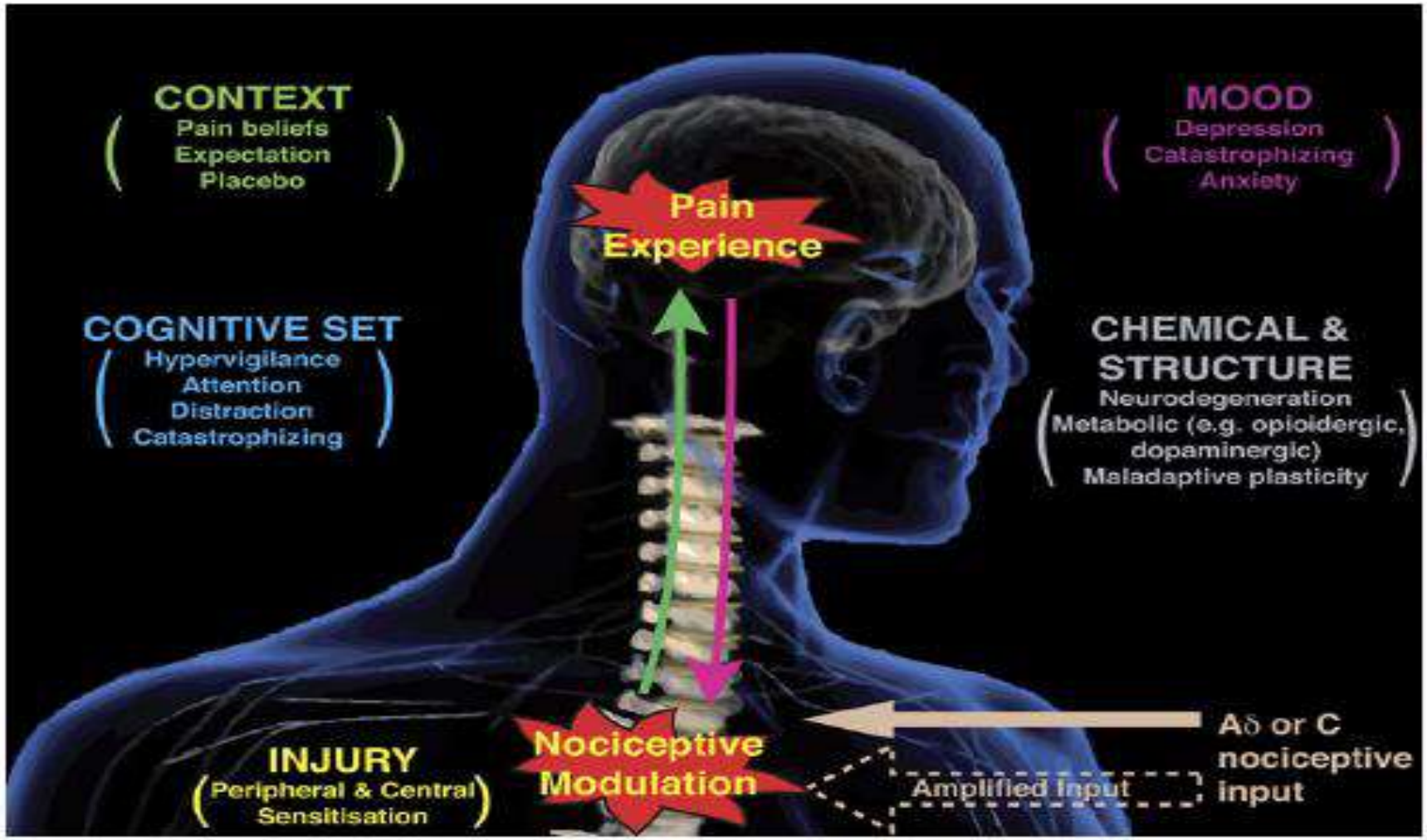
	Male	Female
Prevalence in all migraine population	5.9–6.5	6.9–9.6
Education		
At least graduate degree (%)	0.4	1.2
Less than 12 years (%)	1.2	4.6
Median headache frequency (days/month)	20.0–21.7	20.0
Median MIDAS scores	32–33	38–45
Rates of moderate/severe disability (%)	66.9–71	78.9–82.6
Lost 20 working days within 3 months due to migraine (%)	9.9	15.8

MIDAS Migraine Disability Assessment questionnaire

La manifestazione fenotipica dell'emicrania cronica è diversa nei 2 sessi, poichè le donne manifestano maggiore invalidità e perdita di giorni di lavoro

Neuron
Review

Irene Tracey[1,*] and Patrick W. Mantyh[2,*]



Perché parlare di dolore di genere? E cosa intendiamo per dolore di genere?

Review > J Cell Mol Med. 2019 Jul;23(7):4505-4513. doi: 10.1111/jcmm.14390.
Epub 2019 May 20.

The exploration of mechanisms of comorbidity between migraine and depression

Migraine and depression: bidirectional co-morbidities?

G. Bruti ✉, M. C. Magnotti & G. Iannetti

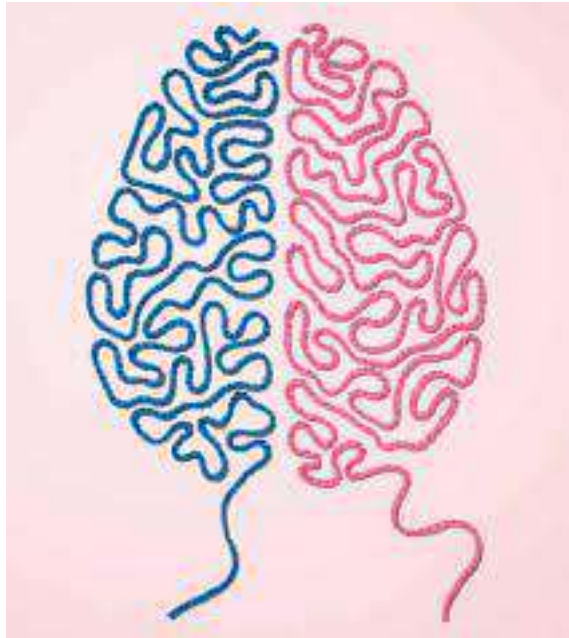
Neurological Sciences **33**, 107–109 (2012) | Cite this article

Abstract

Even if the bidirectional co-morbidity between migraine and depression has been supported by epidemiological and genetic studies, many aspects of this association have not been completely understood. This may be due to the heterogeneous character of migraine and depression as well as to their multifactorial pathogenesis. In this review, we have briefly reported the more recent findings published about the co-morbidity between migraine and depression by discussing the above reported issues and the relative clinical and therapeutic implications.

Meta-Analysis > Psychol Bull. 2017 Aug;143(8):783-822. doi: 10.1037/bul0000102.
Epub 2017 Apr 27.

Gender differences in depression in representative national samples: Meta-analyses of diagnoses and symptoms



> Psychiatry Res. 2013 Dec 30;210(3):1301-3. doi: 10.1016/j.psychres.2013.09.027.
Epub 2013 Oct 2.

Gender differences in depression and anxiety: the role of age

Carlo Faravelli [1], Maria Alessandra Scarpato, Giovanni Castellini, Carolina Lo Sauro

Le differenze di genere nella percezione del dolore sono state un argomento di crescente interesse negli ultimi anni e conseguenti studi clinici hanno evidenziato che le donne dimostrano una maggiore sensibilità al dolore cronico Soffrire nell'anima e nel corpo è fatto individuale, ma la cultura e gli ormoni portano a un soffrire diverso nell'uomo e nella donna.

- Gli ormoni sessuali modulano la neurotrasmissione agendo come "steroidi neuroattivi".

LA TOLLERANZA E LA SOGLIA SONO ***IN GENERE*** RIDOTTE NEL SESSO FEMMINILE

Gli estrogeni e gli androgeni influenzano la percezione del dolore

Table 5
Studies Examining Sex Differences in Pressure, Electrical, and Ischemic Experimental Pain Models

Authors	Sample Size (M/F)	Stimulation Site	Method	Threshold*	Tolerance*	Ratings†
Pressure pain						
Ayesh et al[19]	24/19	F	PA	F = M	M > F	—
Chesterton et al[66]	120/120	H	PA	M > F	—	—
Ellermeir and Westphal [111]	18/18	FNG	PA	—	—	F > M
Fillingim et al[123]	39/49	T, M, U	PA	M > F	—	—
Fillingim et al[132]	39/61	T, M, U	PA	M > F	—	—
Garcia et al[141]	12/18	TP	PA	M > F	—	—
Komiyama and De Laat [227]	16/16	M, H	PA	M > F	M > F	F = M
Komiyama et al[228]	44/44	M, H, L	PA	M > F	M > F	F > M
Nie et al[295]	12/12	H	CCPS	F = M	—	F = M
Electrical pain						
al' Absi et al[1]	59/40	FA	ES	M > F	M > F	—
Ashina et al[14]	9/12	T, TM	ES	M > F	M > F	—
Ayesh et al[19]	24/19	F	ES	F = M	—	—
Nyklicek et al[298]	26/23	FA	ES	M > F	M > F	—
Ischemic pain						
Bragdon et al[45]	22/20	A	SETT	F = M	F = M	—
Edwards et al[107]	83/115	A	SETT	F = M	F = M	—
Fillingim and Maixner [128]	25/23	A	SETT	F = M	M > F	F = M
Fillingim et al[123]	39/49	A	SETT	F = M	F = M	—
Fillingim et al[132]	39/61	A	SETT	F = M	F = M	—
Girdler et al[161]	40/37	A	SETT	M > F	M > F	F = M

Abbreviations for stimulation sites: A, arm; F, face; FA, forearm; FNG, finger; H, hand; L, Leg; M, masseter muscles; T, trapezius muscles; TM, temporal muscle; U, Ulna.

Abbreviations for methods: CCPS, computer controlled pressure stimulator; ES, electrical stimulation; PA, pressure algometry; SETT, submaximal effort tourniquet test.

*Lower levels of threshold and tolerance in females indicate greater pain sensitivity.

†Higher subjective ratings in females indicate greater pain sensitivity.

Neuropharmacology 210 (2022) 109030

Contents lists available at ScienceDirect

Neuropharmacology

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

Sex differences in pain along the neuraxis

Peyton Presto [a], Mariacristina Mazzitelli [a], Riley Junell [a], Zach Griffin [a], Volker Neugebauer [a,b,c,*]

Non c'è prevalenza di sesso nella resilienza al dolore.

Therefore, it is difficult to draw firm conclusions surrounding which sex is more strongly affected by or more resilient to pain, as the underlying mechanisms driving these dimensional differences are largely unknown.

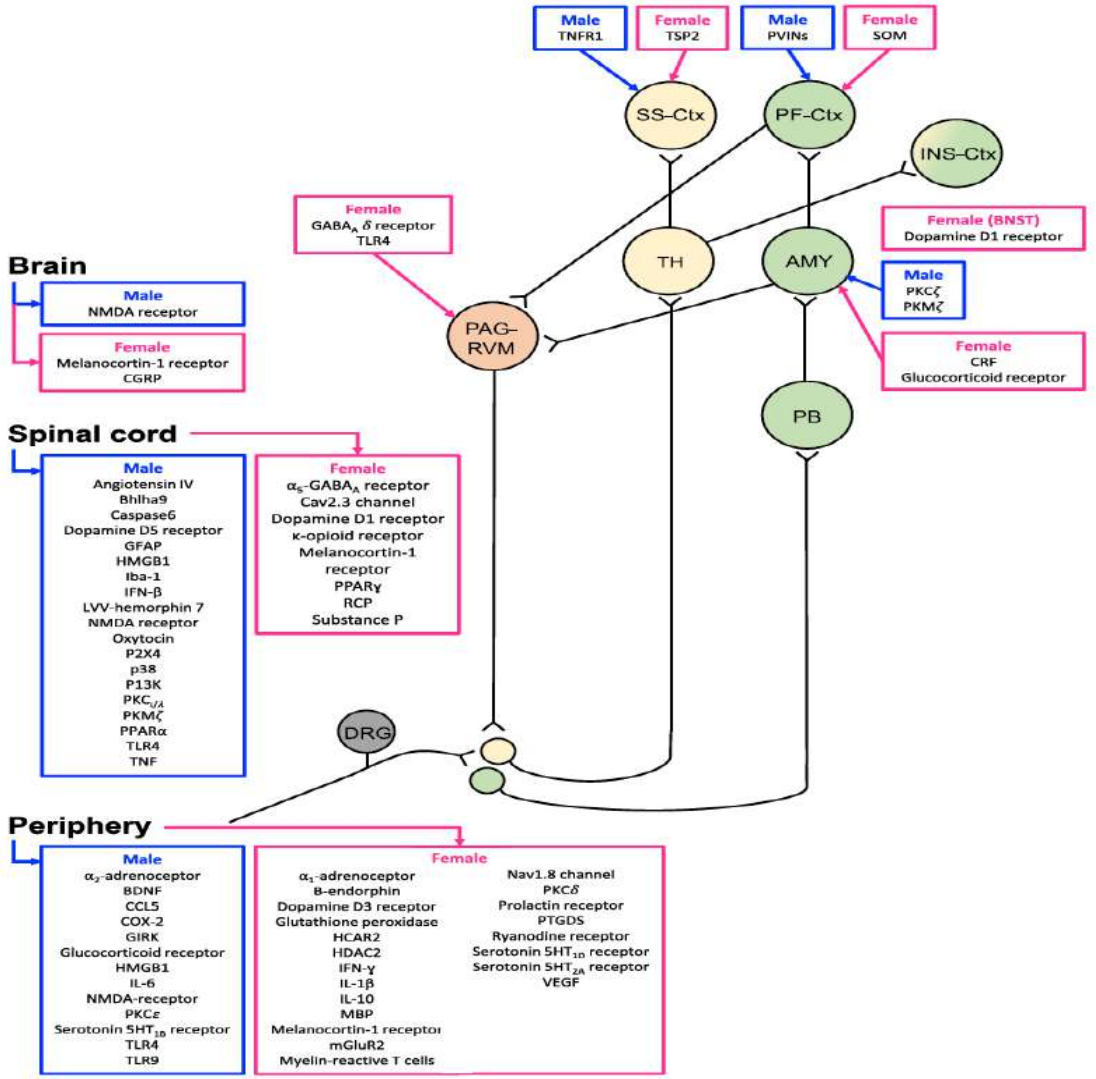
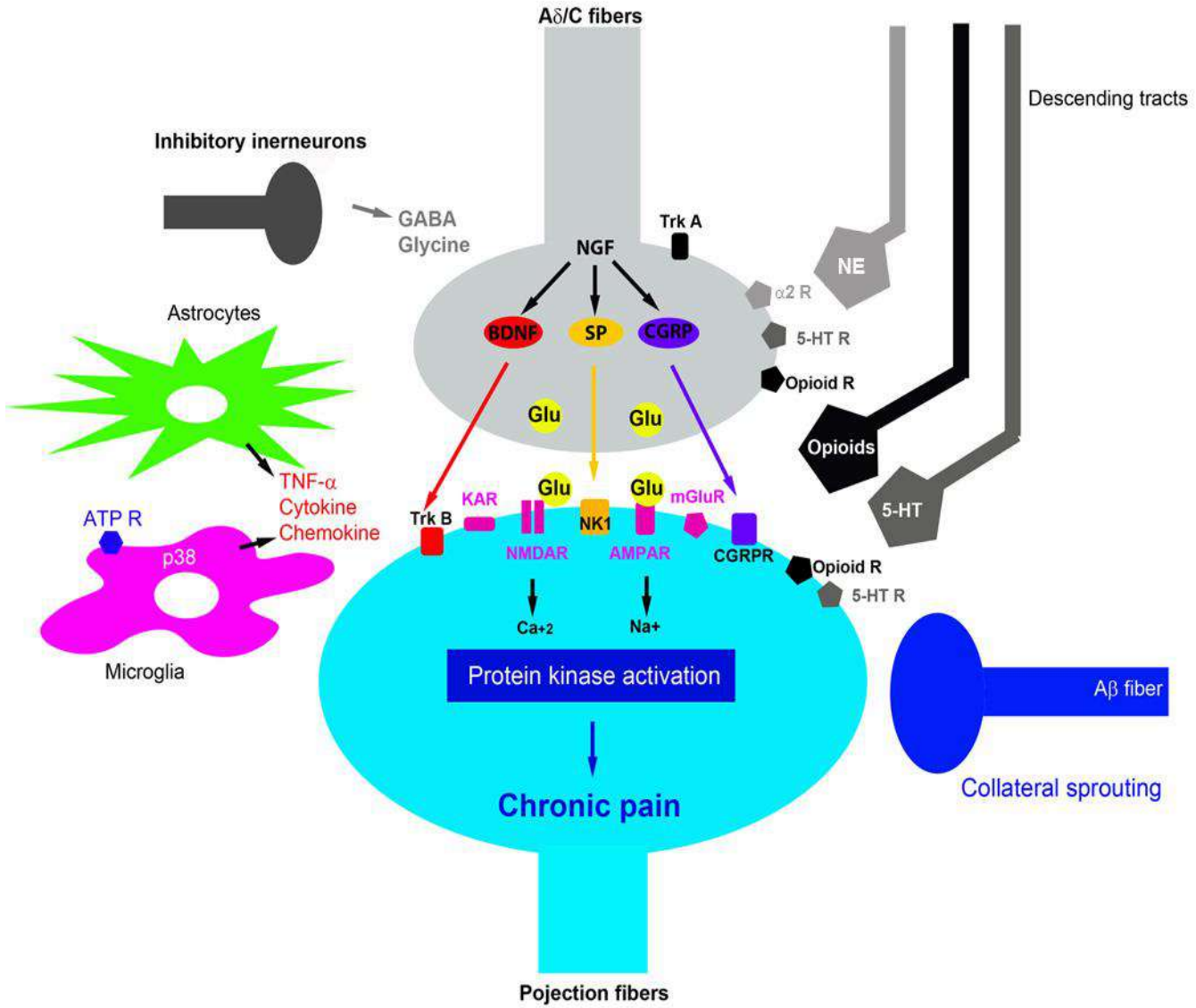


Fig. 1. Sex-predominant cellular and molecular factors within the pain system. First order nociceptive neurons are located in the dorsal root ganglia (DRG) and carry nociceptive information from the periphery into the CNS. These neurons synapse in the spinal cord dorsal horn (DH), and axons from second order neurons decussate in the anterior white commissure to ascend in the contralateral spinal cord. Pain-related information is conveyed through at least three main pathways: the spinothalamic tract (STT, shown in yellow), the spinoparabrachioamygdala tract (SPbA, shown in green), and the postsynaptic dorsal column (PSDC) pathway (not shown). Sensory information is conveyed through the STT to the ventral posterolateral and -medial (VPL and VPM) nuclei of the thalamus (TH) before synapsing in the somatosensory cortex (SS-Ctx) and posterior aspect of the insular cortex (INS-Ctx), allowing for the localization and intensity detection of pain. In the SPbA pathway, also known as the limbic pathway, nociceptive information relays in the parabrachial nucleus (PB) in the brainstem before reaching the amygdala (AMY). AMY integrates multimodal sensory and nociceptive information to alter central autonomic functions and emotional-affective states through associative processing and provides value-based information to prefrontal cortical regions (PF-Ctx) and anterior INS-Ctx. Various brain regions engage the descending pain modulatory system, including efferents from AMY and PF-Ctx that synapse onto the periaqueductal gray and rostral ventromedial medulla (PAG-RVM) system (shown in orange). These brainstem regions then modulate spinal nociceptive processing through descending monoaminergic projections. Cellular and molecular factors that have been reported to have sexually dimorphic effects are illustrated by pink (representing female-predominant effects) and blue (representing male-predominant effects) boxes. BNST, bed nucleus of stria terminalis.

Le modalità di attivazione del sistema nocicettivo sono diverse nei 2 sessi. Ancora meno chiare sono le differenze di genere nell'ambito dei meccanismi immunitari e dell'attivazione gliale



Neuropharmacology 210 (2022) 109030
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Sex differences in pain along the neuraxis

Peyton Presto [a], Mariacristina Mazzitelli [a], Riley Junell [a], Zach Griffin [a], Volker Neugebauer [a,b,c,*]

Le donne si adatterebbero di meno al dolore fasico ripetuto, ma dimostrerebbero più abitudine al dolore tonico rispetto agli uomini

IASP

PAIN® 155 (2014) 10–13

PAIN®

www.elsevier.com/locate/pain

Topical review

Deconstructing sex differences in pain sensitivity

Javeria A. Hashmi[a,b], Karen D. Davis[c,d,*]

[a] Psychiatry Department, Harvard Medical School, Charlestown, MA, USA
[b] Massachusetts General Hospital, Charlestown, MA, USA
[c] Division of Brain, Imaging and Behaviour – Systems Neuroscience, Toronto Western Research Institute, University Health Network, Toronto Western Hospital, 399 Bathurst Street, Toronto, ON M5T 2S8, Canada
[d] Department of Surgery and Institute of Medical Science, University of Toronto, Toronto, ON, Canada

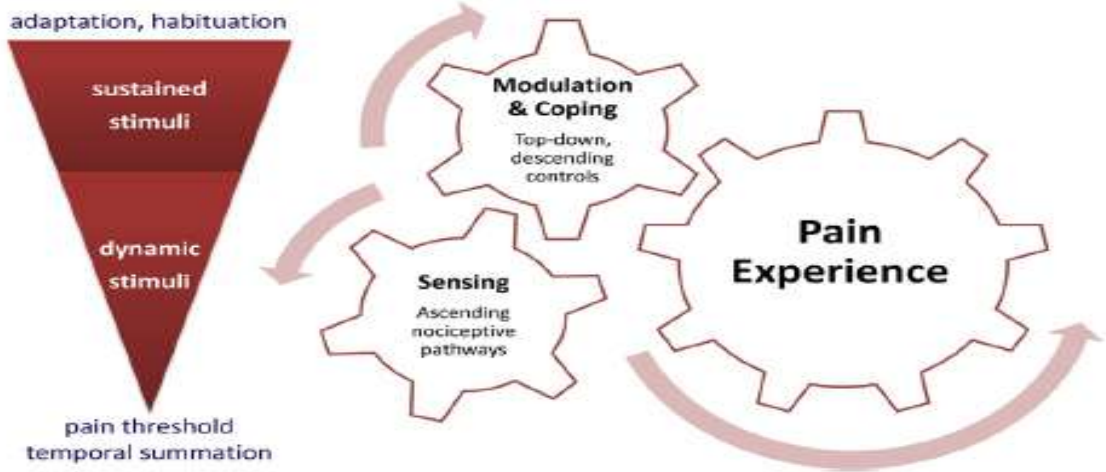


Fig. 2. Model for investigating sex differences in pain. We propose that the overall pain experience derives from "sensing" noxious stimuli by peripheral and ascending nociceptive pathways, which then induce activity in "modulation and coping" systems that include the descending modulation inhibitory pathway and top-down controls. Thus, pain sensitivity comprises elements from both the sensing and the modulation/coping systems. Existing evidence indicates that women are more responsive to dynamic stimuli where the temperature is vacillating or increasing, such as observed in temporal summation and threshold testing. In contrast, women can adapt and habituate more than men to sustained longer duration stimuli. We recommend that future studies of the concept of pain "sensitivity" and sex differences interpret their findings within this conceptual framework. This model indicates that tests that involve threshold and suprathreshold pain responses with brief or long stimuli, and with dynamic or static temperatures, may evoke different responses in men and women, and each variable may be critical for gaining insight into only one aspect of the overall pain sensitivity.

Contraception
an international reproductive health journal

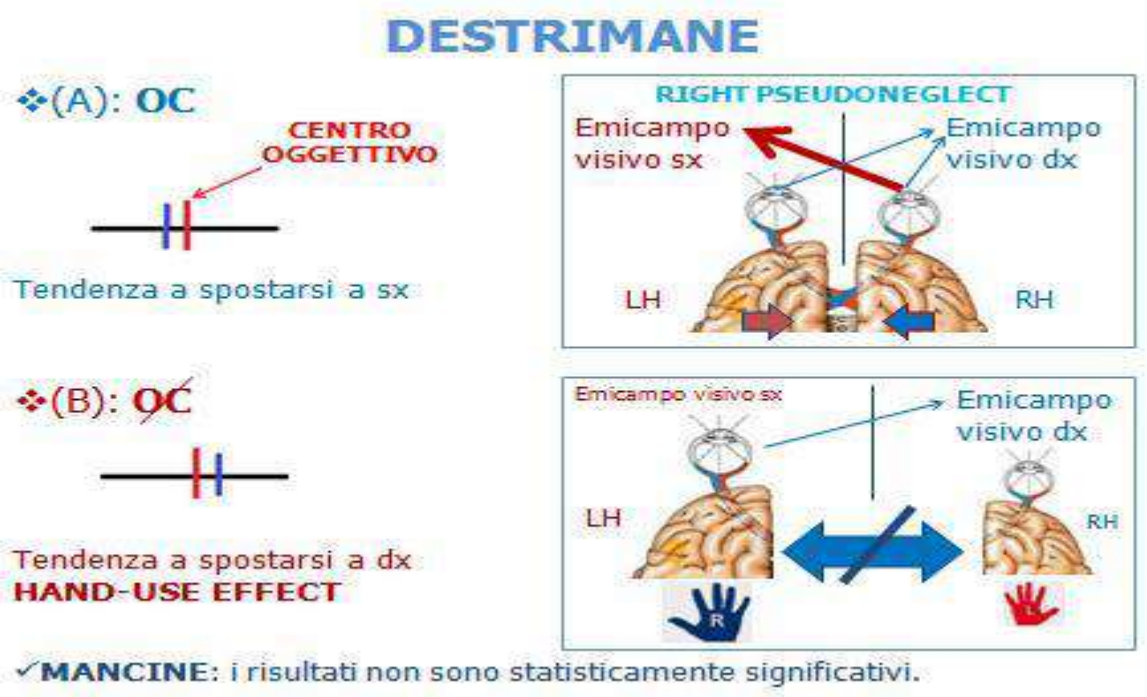
Gli estrogeni e gli androgeni influenzano le variabili cognitive

Article in Press

Oral contraceptive therapy modulates hemispheric asymmetry in spatial attention

Ettore Cicinelli, Marina De Tommaso, Antonio Cianci, Nicola Colacurci, Leonarda Rella, Luisa Loiudice, Maria Vittoria Cicinelli, Paolo Livrea

MODIFICAZIONI ATTENTIVE COMPLESSE

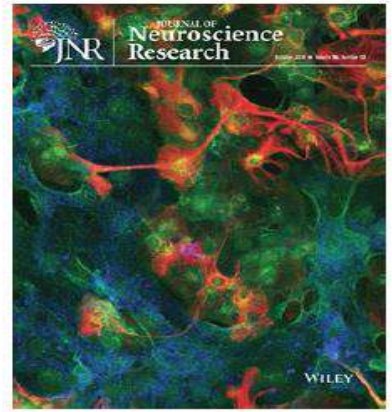


I risultati del presente studio confermano le interazioni tra ormoni steroidei e processi cognitivi, suggerendo una significativa influenza da parte dei contraccettivi orali.

REVIEW

Sex differences in the social brain and in social cognition

Alice Mado Proverbio



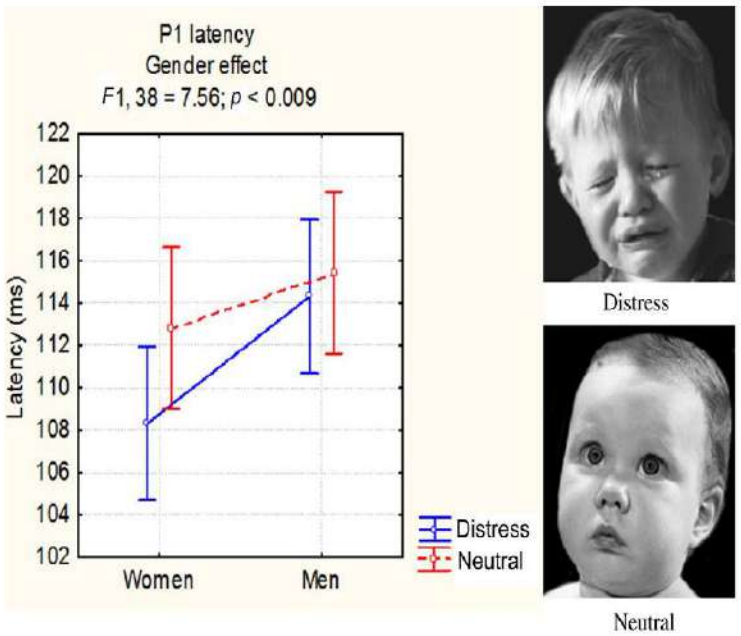
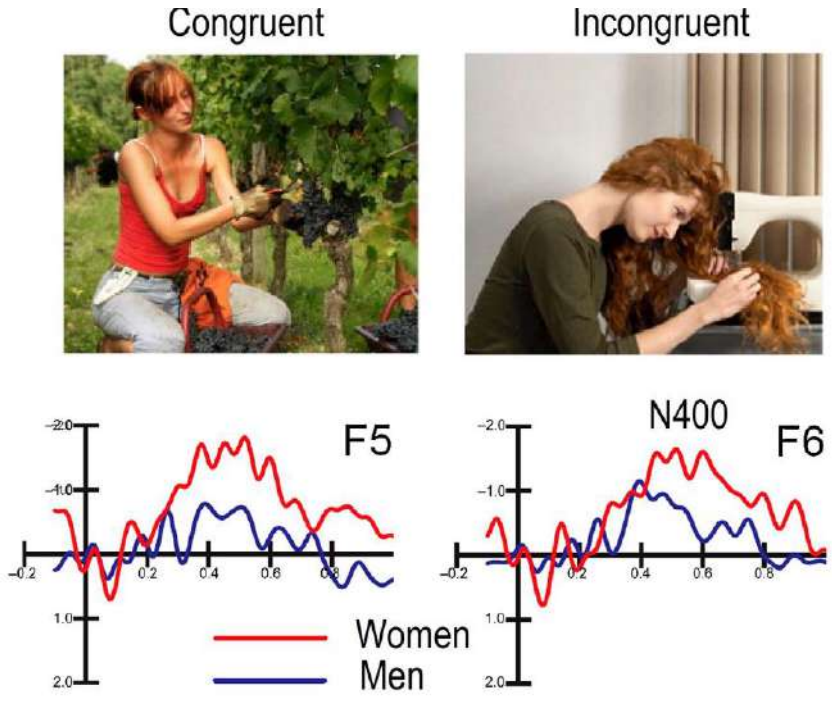


FIGURE 1 Mean latency of P1 component recorded at lateral occipital area (independent of hemispheric site) and analyzed according to viewer's sex and type of facial expression (taken and modified from Proverbio et al., 2006b study, protected by CC BY 2.0)



IGURE 2 Event-related potential (ERP) difference waves obtained by subtracting ERPs to congruent from ERPs to incongruent actions eparately for men and women, over anterior scalp sites. It can be appreciated a much larger N400 response to incongruent actions in omen than men (original figure, relative to Proverbio et al., 2010, courtesy of the authors)

In summary, we have here outlined a series of sex differences in social behavioral and psychological processes that seem biologically associated with female chromosomal karyotype. They are: efficient and bilateral face processing, marked empathic attitude, sensitivity to facial mimicry and gestures, attachment to infants (induced by oxytocin), early interest for infants, curiosity about people and social information, emotional responsivity, lesser incidence of autistic, psychopathic, and sociopathic disorders.

Maggiore empatia per le emozioni negative nelle donne

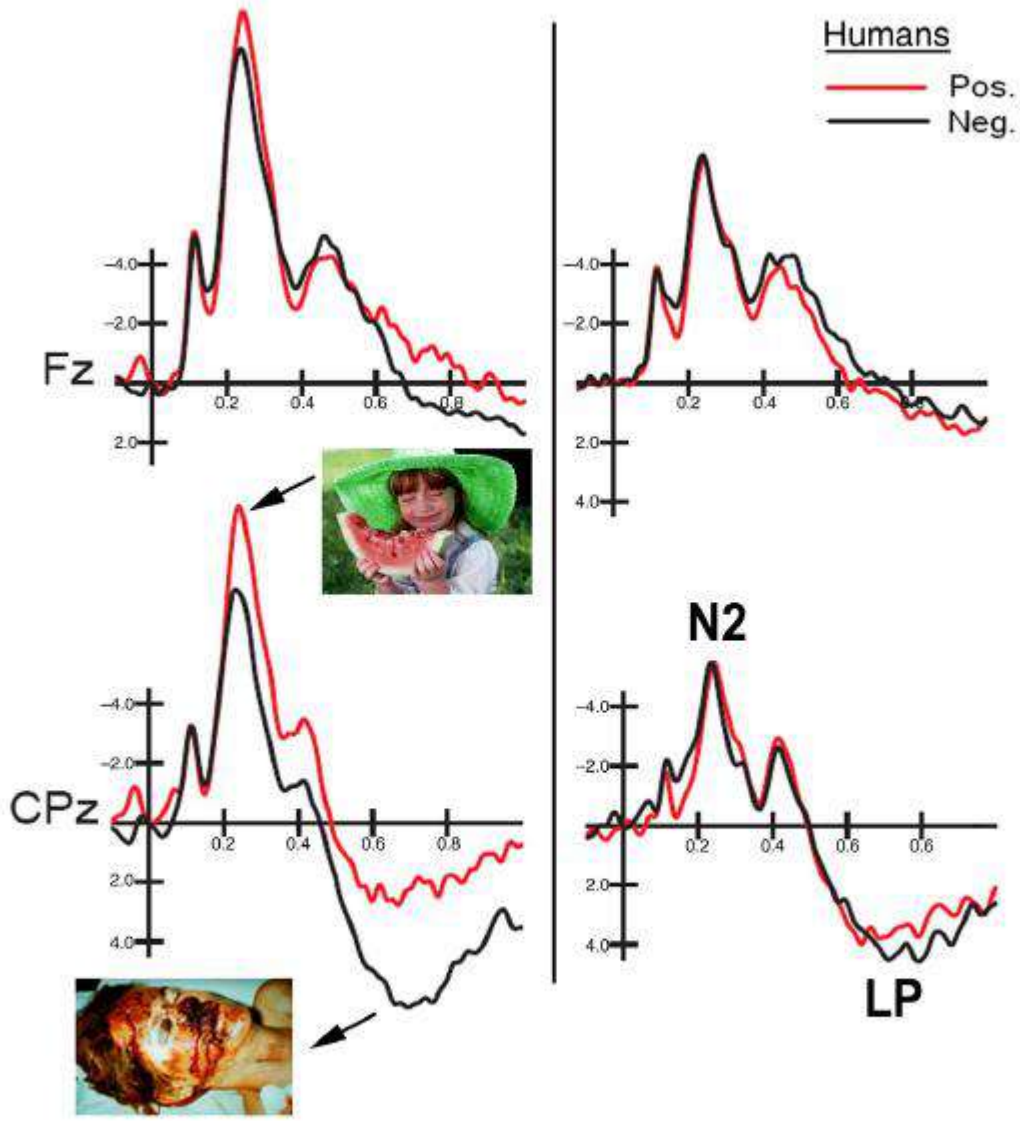
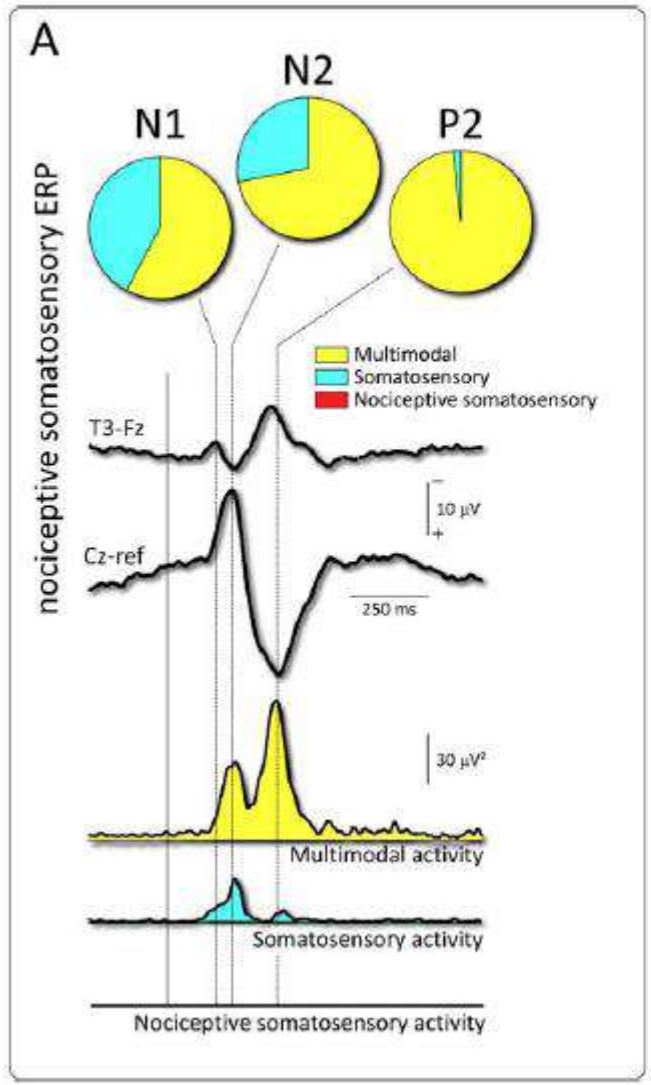


FIGURE 3 Event-related potentials (ERPs) recorded at midline frontal and centro/parietal sites as a function of stimulus valence and viewer's sex. It is visible a large effect of both emotional content (that can be appreciated by comparing ERPs to negative vs. positive unanimated scenes), and an effect of empathy for pain, especially in women (that can be appreciated by comparing ERPs to negative scenes vs. ERPs to pictures portraying humans). Original figure, relative to Proverbio et al. (2009)'s study, reproduced with permission of the authors and of Elsevier

I potenziali evocati da stimolo laser, soprattutto nella componente di vertice, sono un modello di risposta corticale adi uno stimolo “saliente”.
Il dolore è lo stimolo “saliente” per eccellenza.



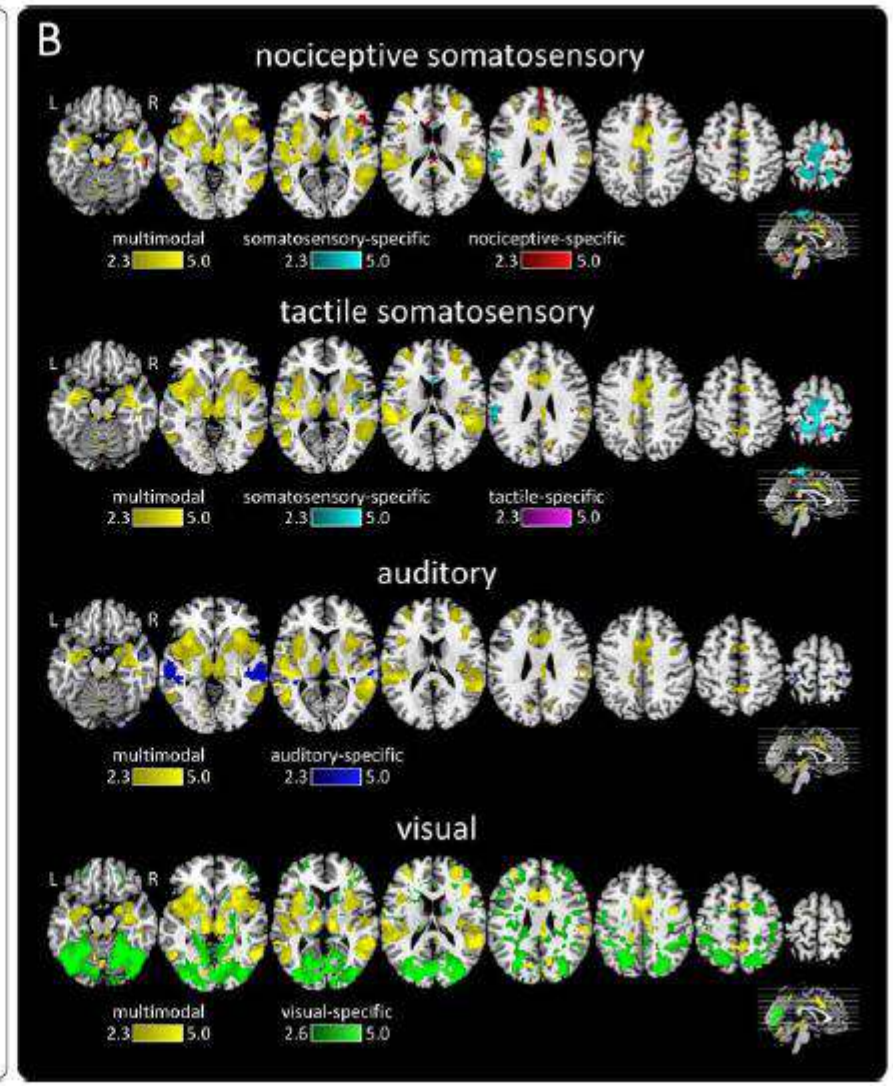


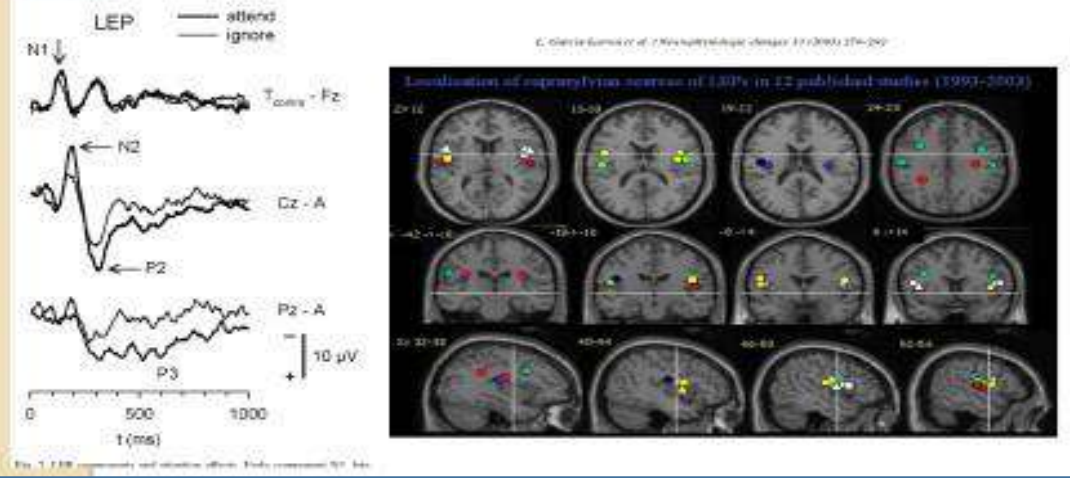
Table 6 Laser-evoked potential features by right hand in 166 females and 61 males and right supraorbital zone stimulation in 111 males and 69 females. The Student's *t*-test between sexes was not significant for any variable.

		Face		Hand	
Sex		Mean	SD	Mean	SD
Pain T (watt)	M	9.15	13.25	6.76	2.18
	F	9.01	12.91	7.10	3.30
VAS	M	50.66	40.10	18.52	12.98
	F	55.66	43.86	26.04	16.31
n1 (ms)	M	129.89	180.44	20.33	22.74
	F	130.19	181.46	19.11	21.04
n1 (uV)	M	5.91	6.12	4.22	6.17
	F	8.47	7.15	5.71	8.23
n2 (ms)	M	199.46	230.64	22.73	28.03
	F	203.07	219.10	27.19	29.59
p2 (ms)	M	321.27	348.75	30.44	34.10
	F	322.79	337.51	33.26	31.96
n2p2 (uV)	M	34.08	31.04	27.88	28.70
	F	28.12	25.11	15.19	17.85
Hab	M	0.66	0.76	0.50	0.47
	F	0.78	0.77	0.48	0.62

Age-related changes in laser-evoked potentials following trigeminal and hand stimulation in healthy subjects

M. de Tommaso, K. Ricci, A. Montemurno, E. Vecchio

I potenziali evocati laser consentono lo studio psicofisiologico del dolore, poiché indicano il grado di attivazione delle aree corticali connesse agli aspetti cognitivi ed emotivi del dolore.



ASSENZA DI DIFFERENZE SIGNIFICATIVE DELLA SOGLIA DEL DOLORE E DEI POTENZIALI CORTICALI INDOTTI DA STIMOLO LASER

Eur J Pain **21** (2017) 1087–1097

NeuroImage 225 (2021) 117473

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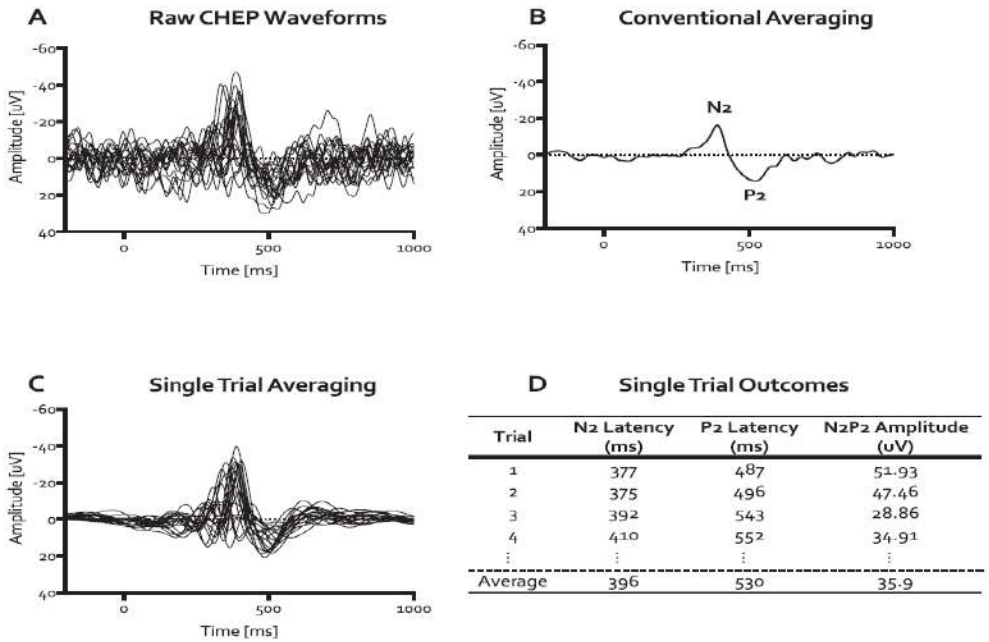
Single-trial averaging improves the physiological interpretation of contact heat evoked potentials

Catherine R. Jutzeler[a,b,c,1,*], Lukas D. Linde[d,e,f,1], Jan Rosner[c,g], Michèle Hubli[c], Armin Curt[c], John L.K. Kramer[d,e,f,*]



Trial	N2 Latency (ms)	P2 Latency (ms)	N2P2 Amplitude (uV)
1	377	487	51.93
2	375	496	47.46
3	392	543	28.86
4	410	552	34.91
⋮	⋮	⋮	⋮
Average	396	530	35.9

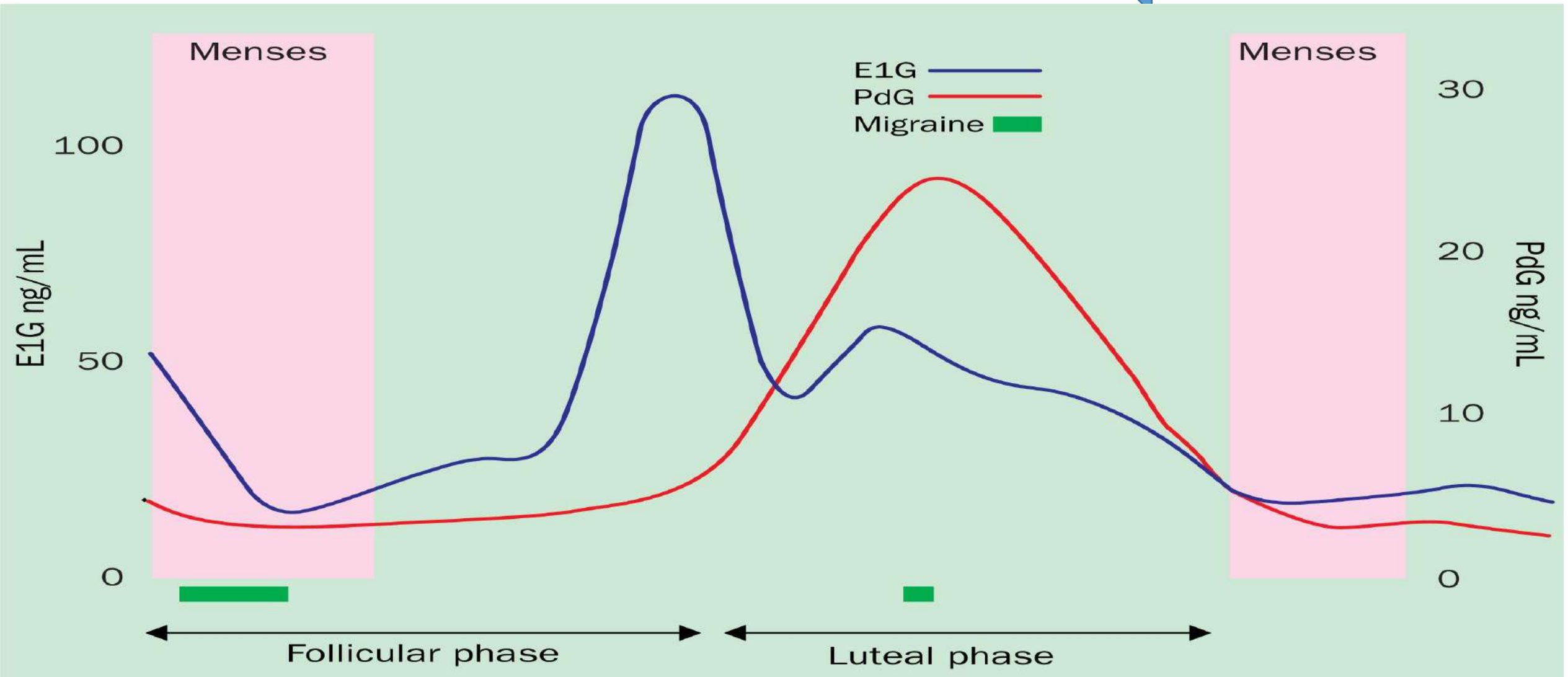
Fig. 1. Representative traces of conventional averaging and single trial averaging analysis methods. A) Individual contact heat evoked potential (CHEP) waveforms, filtered and re-referenced. B) Conventional averaging of individual CHEP waveforms, from which N2 and P2 outcome are derived. C) Individual CHEP waveforms following single trial analysis, via wavelet filtering and multiple linear regression with dispersion term (Hu et al., 2011, 2010). D) Averaged CHEP outcomes determined from single trial analysis.

L'analisi delle singole risposte, rivela ridotta latenza del complesso di vertice di potenziali nocicettivi nel sesso femminile

Our analysis also revealed a significant main effect of sex on N2 ($F_{(1,87.5)}$ = 7.06, p<0.01) and P2 latencies ($F_{(1,85.6)}$ = 10.32, p<0.01), as well as a main effect of rating of perceived intensity on N2P2 amplitude ($F_{(1480.6)}$ = 31.7, p<0.001).

E’ solo un problema di ormoni?

Le sindromi da dolore cronico sono influenzate dai mutamenti ormonali



Influenza degli estrogeni nella percezione del dolore
Misure psicofisiche in modelli animali

Estrogen-dependent changes in visceral afferent sensitivity

R. Sanoja, F. Cervero / Autonomic Neuroscience: Basic and Clinical 153 (2010) 84–89

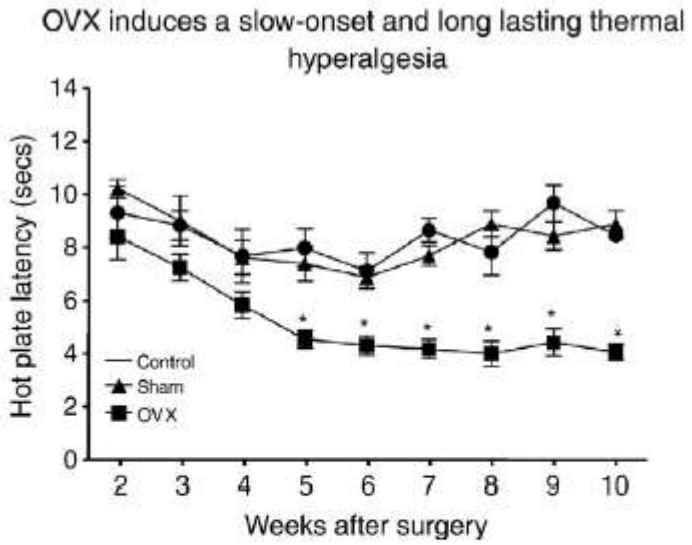


Fig. 2. Estrogen dependency of the hyperalgesic state induced by ovariectomy (OVX). Responses to mechanical stimulation (von Frey hairs) of the abdomen in ovariectomized mice to which slow release pellets containing 17β-estradiol (OVX + 17β-estradiol) or the vehicle only (OVX + placebo) had been implanted one week after surgery. The same animals were tested one week and five weeks after surgery. Note that estrogen-replacement after ovariectomy prevents the development of the hyperalgesic state. Significant differences (*, $p<0.05$) were detected on week five after surgery between OVX + placebo animals and the other three groups. Data from Sanoja and Cervero (2005, 2008).

Nei modelli animali è riscontrabile una chiara relazione fra riduzione degli estrogeni e iperalgesia.

- Ma le donne sono più complesse…….

Il dolore sperimentale non si modifica in relazione ai cambiamenti ormonali

Misure psicofisiche della percezione del dolore correlate al ciclo mestruale

Menstrual cycle phase does not influence gender differences in experimental pain sensitivity

Rebecca R. Klatzkin [b], Beth Mechlin [b], Susan S. Girdler [a,b,*]

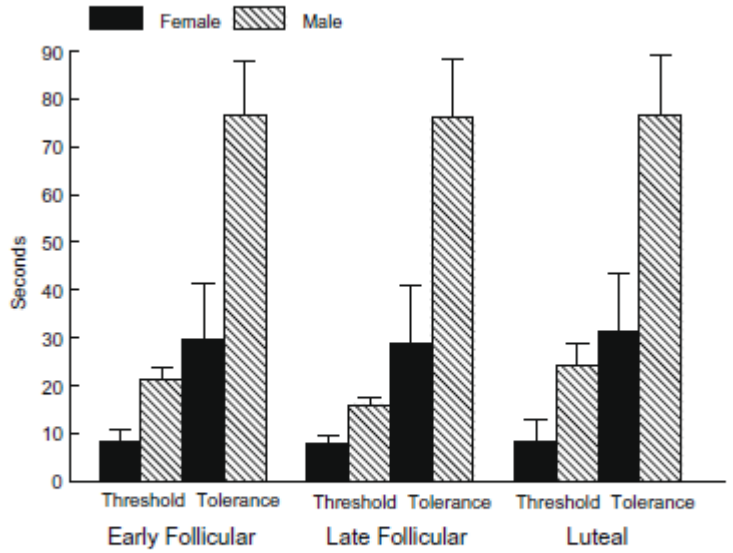


Fig. 1. Cold pressor pain threshold and tolerance as a function of gender and menstrual cycle phase.

R.R. Klatzkin et al. / European Journal of Pain 14 (2010) 77–82

- Le fasi del ciclo mestruale non condizionano le differenze di sesso relative alla soglia e alla tolleranza del dolore

Il dolore sperimentale non si modifica in relazione ai cambiamenti ormonali

ABITUAZIONE DEI LEPs NELL'EMICRANIA

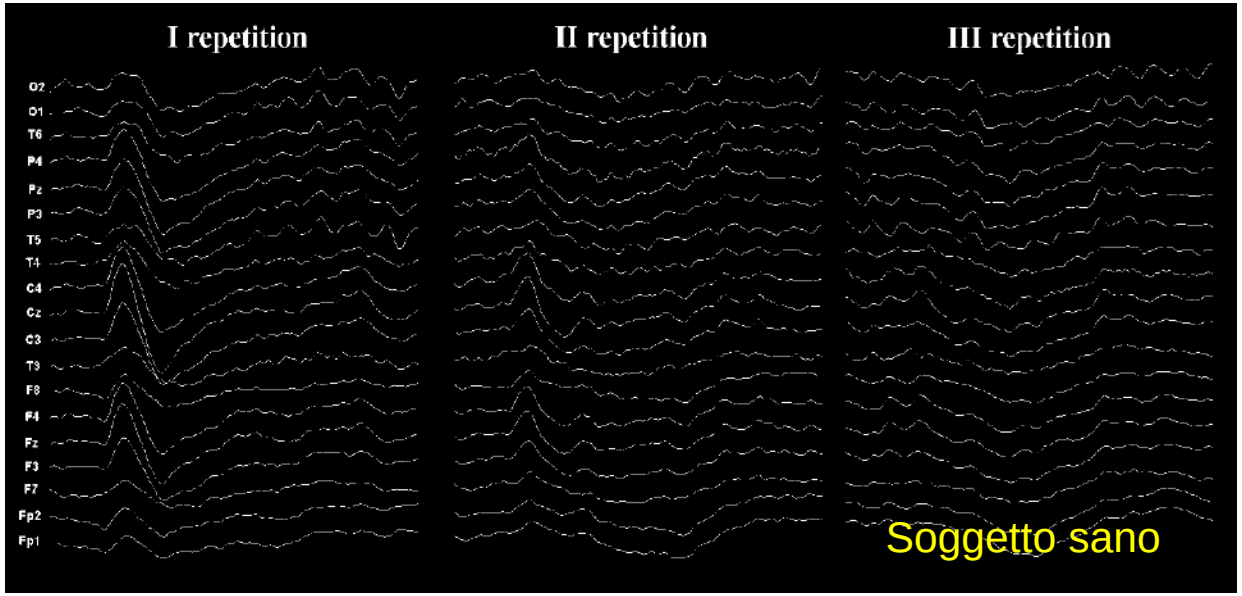
Un pattern di ridotta abituazione è stato osservato durante la fase intercritica dell'emicrania. Esso potrebbe esser considerato un fenomeno corticale essenziale per la comparsa ed il ripetersi degli attacchi emicranici

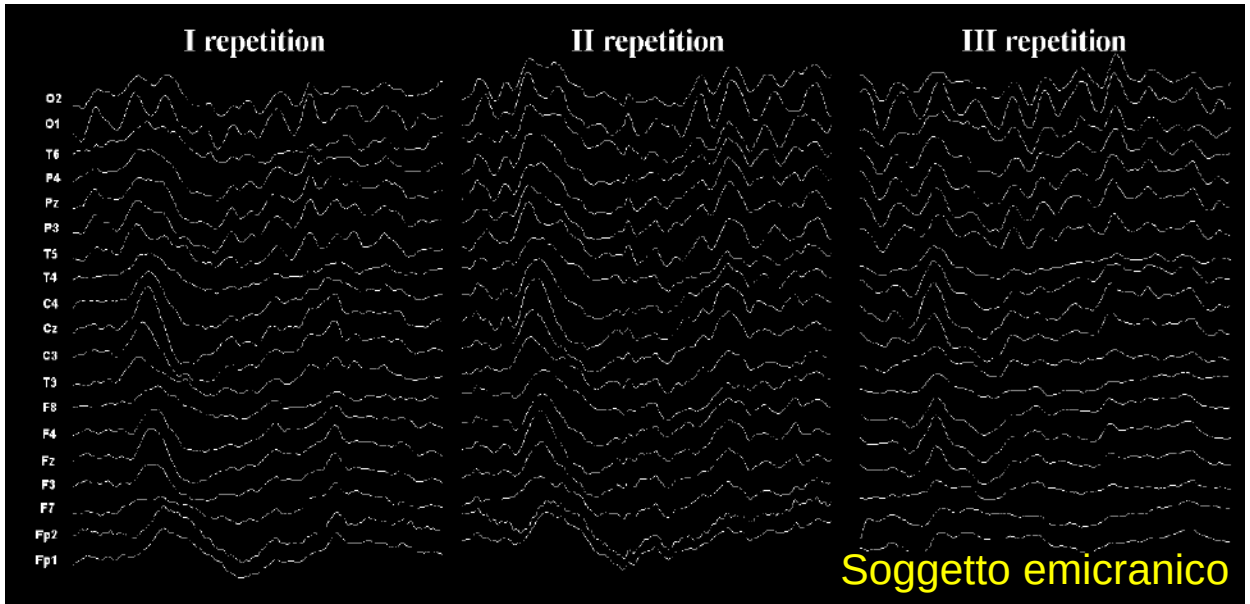
Valeriani et al., 2003

PAIN

Reduced habituation to experimental pain in migraine patients: a CO_2 laser evoked potential study

M. Valeriani[a,b,*], M. De Tommaso[c], D. Restuccia[a], D. Le Pera[a,d], M. Guido[c], G.D. Iannetti[c], G. Libro[c], A. Truini[e], G. Di Trapani[a], F. Puca[c], P. Tonali[a], G. Cruccu[e]





L'*habituation del complesso di vertice si riduce sia nelle pazienti emicraniche che nelle donne non emicraniche*

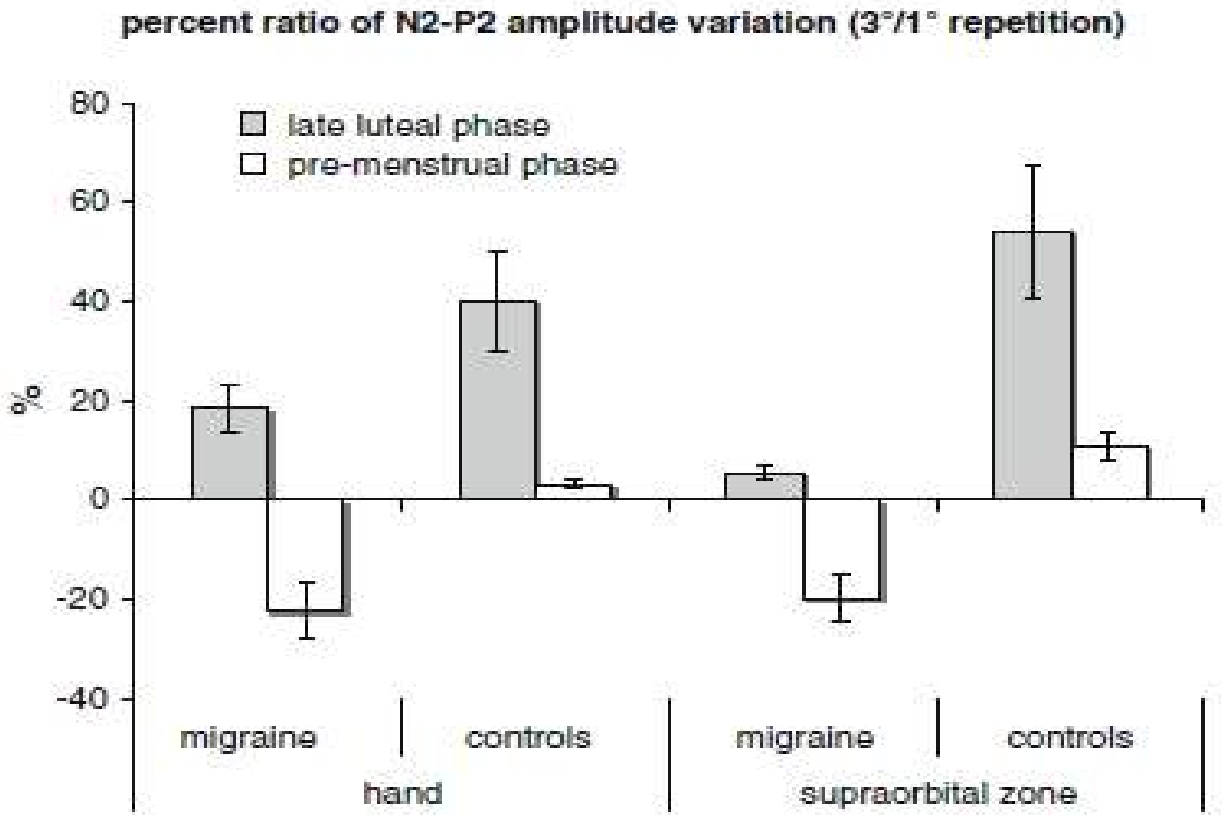
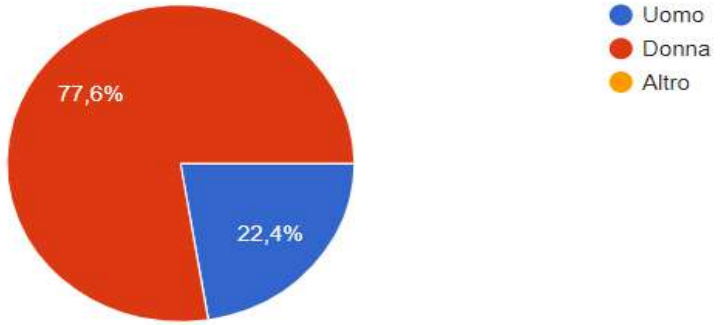


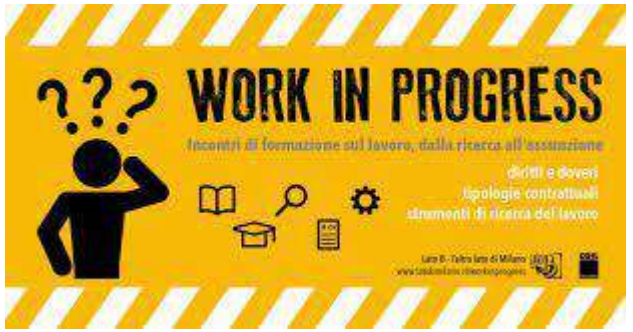
Fig. 4 Mean values and standard errors of percent ratio of amplitude variation, computed between the third and the first series of N2–P2 complexes, in migraine patients (no. 9) and controls (no. 10)

Lo Stress in Ambito Familiare e Lavorativo nell'Emicrania : Risultati di un'intervista online in pazienti afferenti a Centri Cefalee

Survey -Test Somministrati

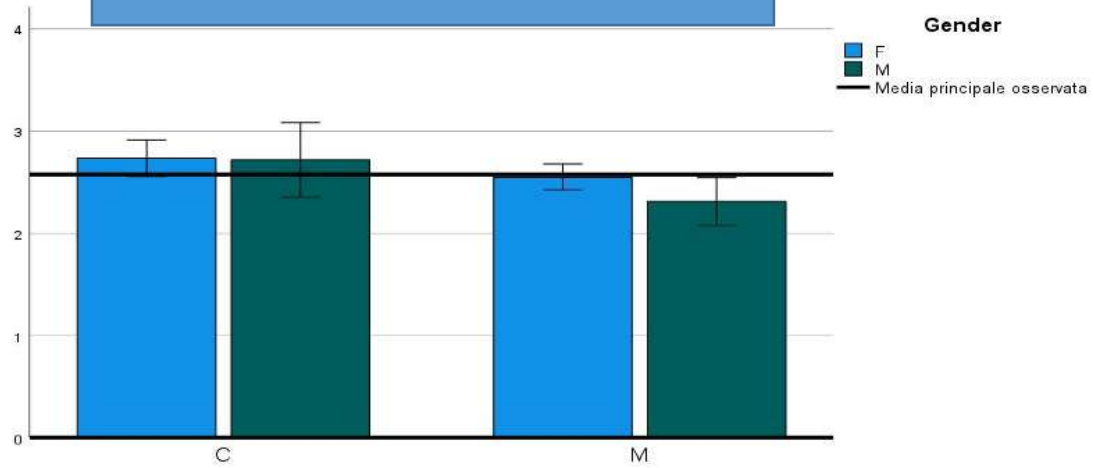
- BAI Beck Anxiety Inventory (Beck et al.)
- BPQ Body Perception Questionnaire (Porges)
- RSQ Romance Quality Scale
- CTS Conflict Scale
- ERQ Questionario Regolazione Emotiva (Versione Italiana Balzarotti et al.)
- PSS Scala Stress Percepito (S. Cohen)
- Stress Lavoro Correlato
- Percezione del Dolore Emicranico/Fibromialgico



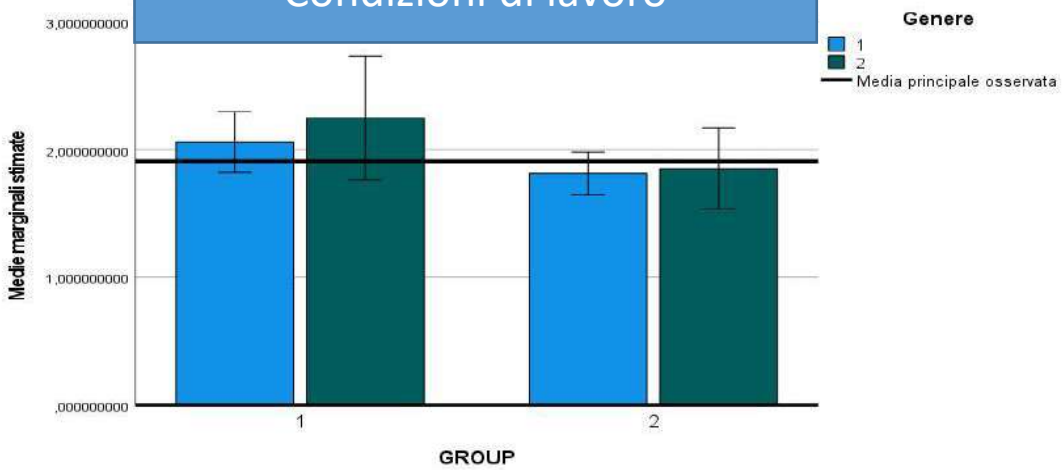


Non si evincono differenze di genere nel gruppo degli emicranici e dei controlli per le variabili considerate, ma solo differenze relative alla patologia. La percezione del dolore è più elevata nei pazienti emicranici, con lieve prevalenza femminile

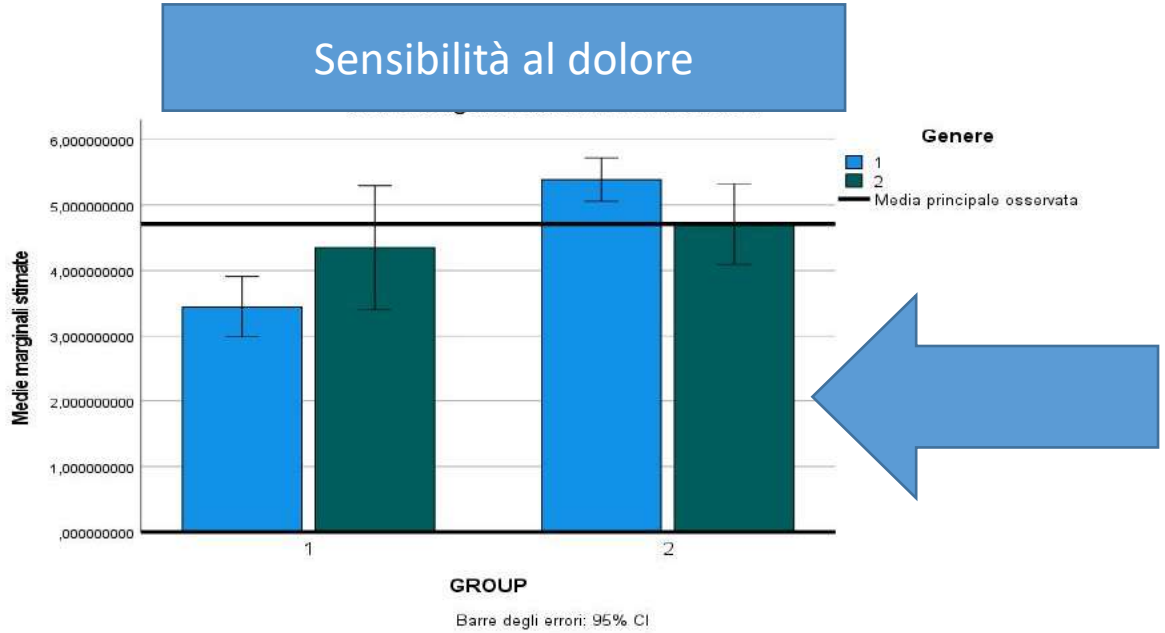
relazioni familiari



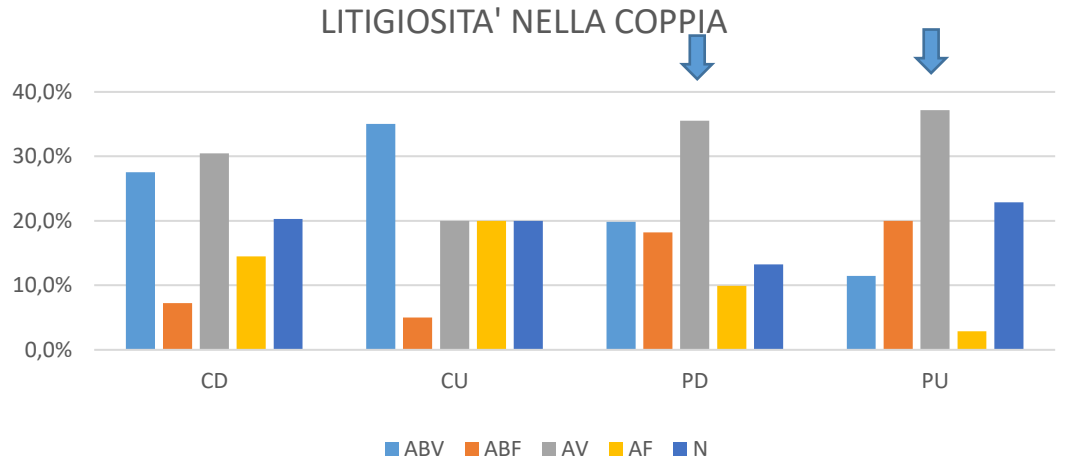
Condizioni di lavoro

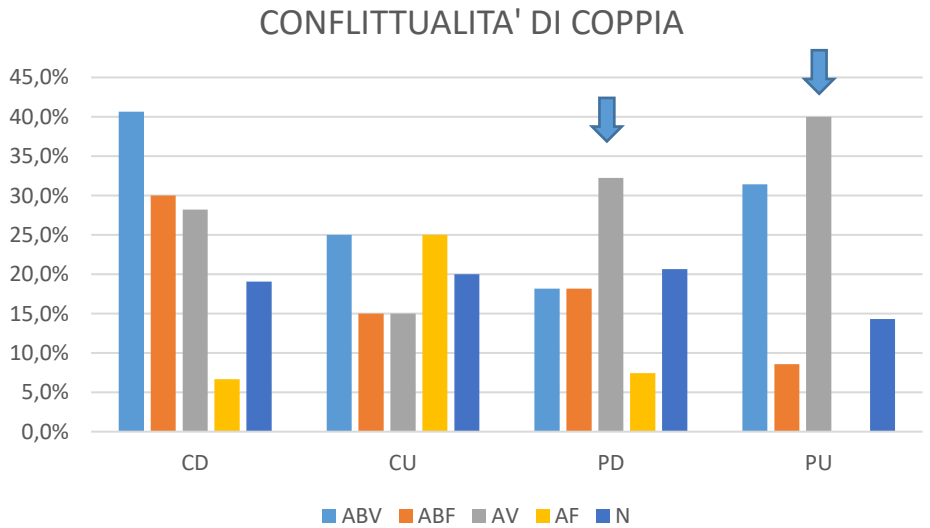


Sensibilità al dolore

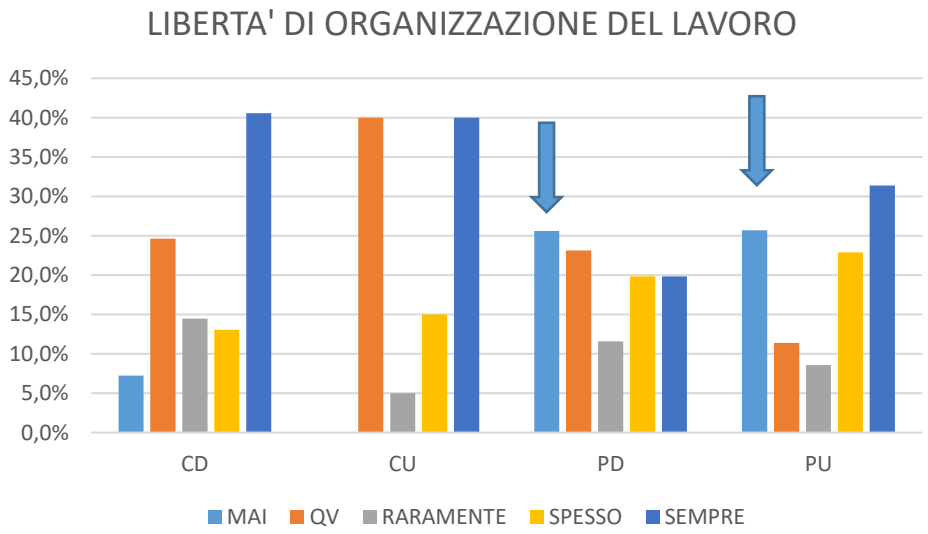


Nei rapporti familiari, l’emicrania fa la differenza

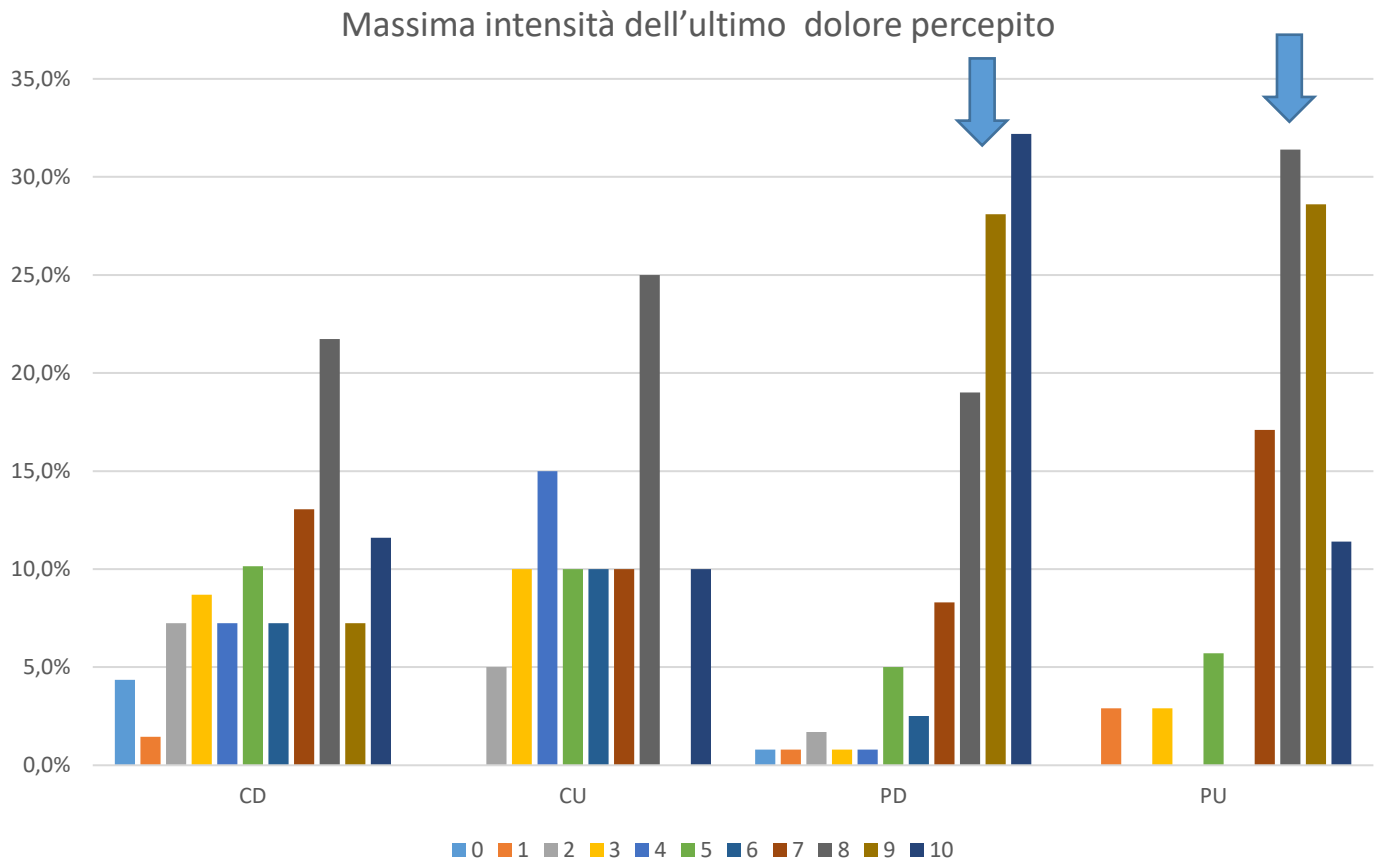




Nello stress da lavoro, l’emicrania fa la differenza

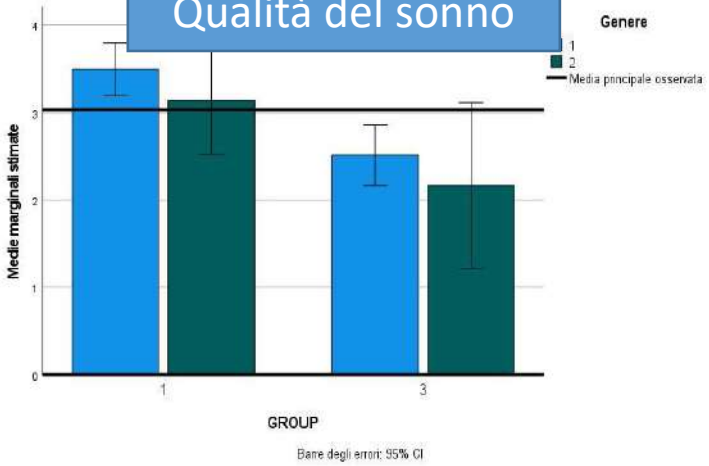


Nella sensibilità al dolore, l'emicrania fa la differenza
(ma le donne emicraniche sentono più dolore)

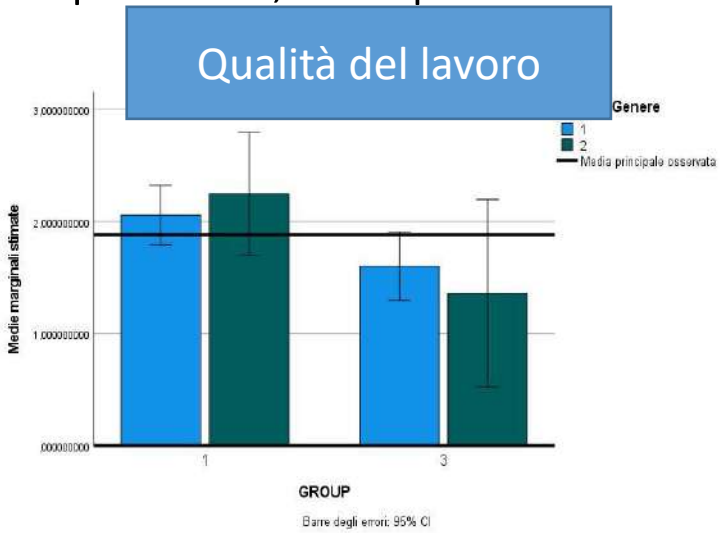


Nella fibromialgia, esempio di dolore cronico, gli indicatori di stress sono significativamente peggiori nel gruppo dei pazienti. La sensibilità al dolore è maggiore nel gruppo dei pazienti, con prevalenza femminile

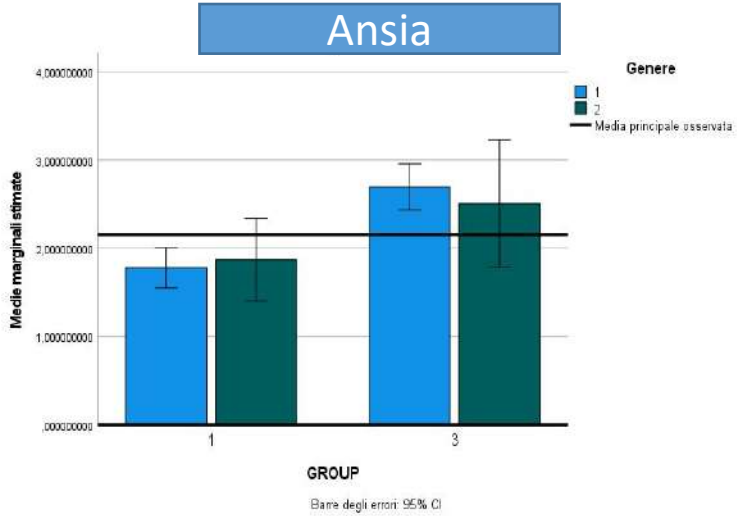
Qualità del sonno

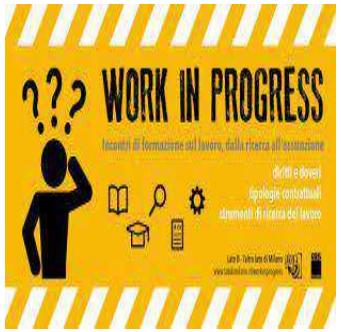


Qualità del lavoro

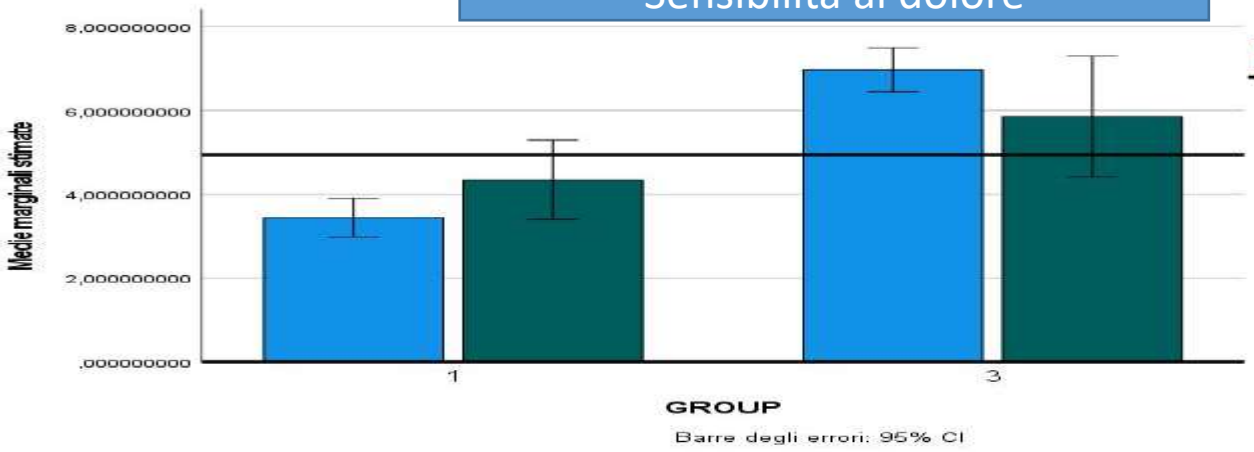


Ansia





Sensibilità al dolore



Riflettiamo……

- Sesso femminile → aumentata percezione del dolore indipendentemente dalla patologia e dalla specifica condizione ormonale
- La prevalenza di sesso nelle singole condizioni di dolore cronico sembra dipendere prevalentemente da variabili di tipo genetico e fattori ambientali comuni nei 2 sessi che condizionano comunque fenotipi similari
- Non c’è evidenza che il sesso femminile predica una evoluzione peggiore in tutte le condizioni di dolore cronico

La prevalenza di sesso nelle singole condizioni di dolore cronico sembra dipendere prevalentemente da variabili di tipo genetico e *fattori ambientali comuni nei 2 sessi* che condizionano comunque fenotipi similari .

Neuro-epidemiology

Original Paper

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The Epidemiology of Migraine Headache in General Population of Tehran, Iran

Behnam Rabiee[a] Atefeh Zeinoddini[a] Ramin Kordi[a] Masud Yunesian[b]
Payam Mohammadinejad[a] Mohammad A. Mansournia[a]

The 1-year prevalence of migraine was 27.6% (36.7% in women and 21.6% in men) in Iranian general population,

Iran Red Crescent Med J. 2016 October; 18(10):e40061. doi: 10.5812/ircmj.40061.
Published online 2016 September 21. Review Article

The Prevalence of Migraine in Iran: A Systematic Review and Meta-Analysis

Zeynab Farhadi,[1] Saeideh Alidoost,[2] Meysam Behzadifar,[3] Roghayeh Mohammadibakhsh,[4] Najmeh Khodadadi,[5] Razieh Sepehrian,[6] Rahim Sohrabi,[7] Masood Taheri Mirghaed,[6] Morteza Salemi,[8] Hamid Ravaghi,[6] and Masoud Behzadifar[2,3,6,*]

Conclusions: The prevalence of migraine in Iran, which was estimated as 14%, was similar or even higher than that reported worldwide.

Un campione estratto dalla UOC Neurofisiopatologia Universitaria …esempio di prevalenza di genere….