

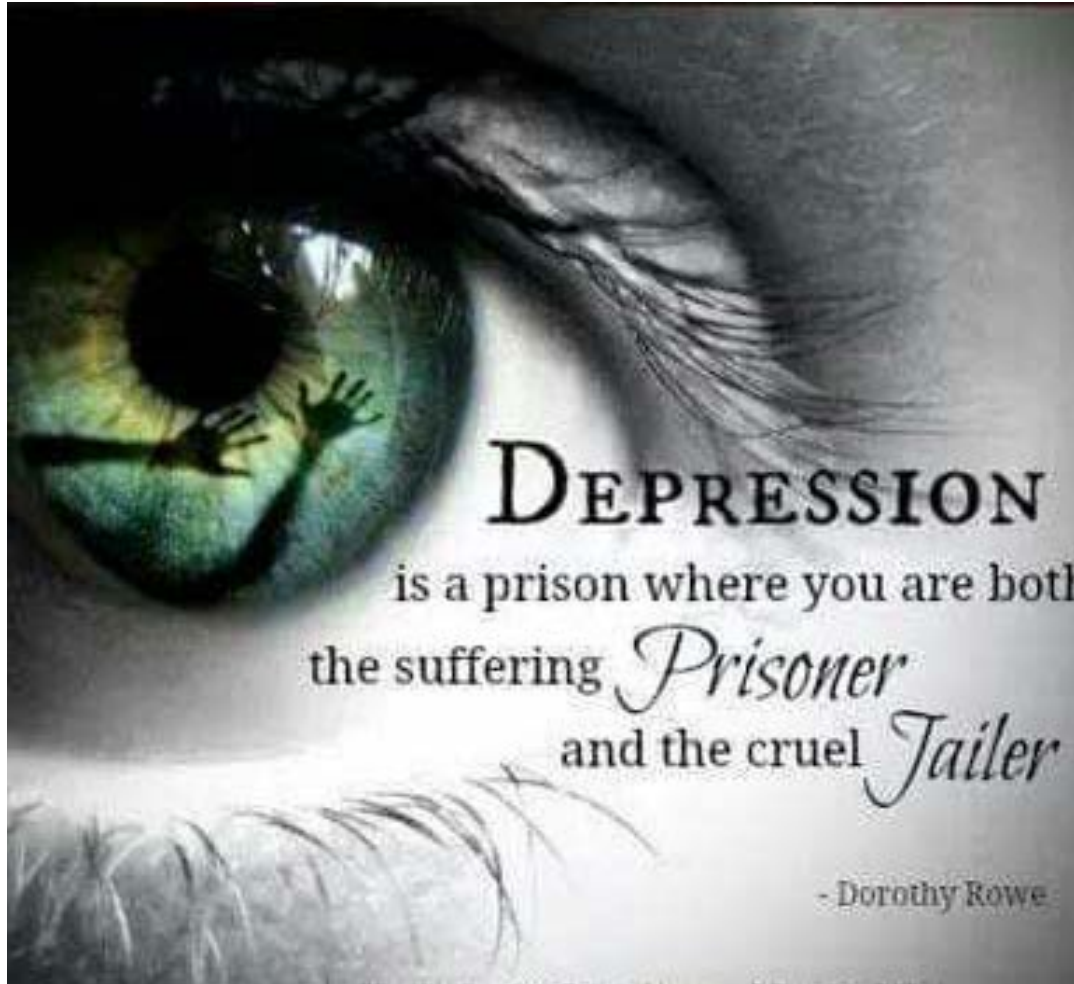


Depresión y anticoncepción

Josep Perelló Capó

Adjunto en Ginecología y Obstetricia Hospital Sant Pau

Tesorero de la Junta Directiva Societat Catalana Contracepció



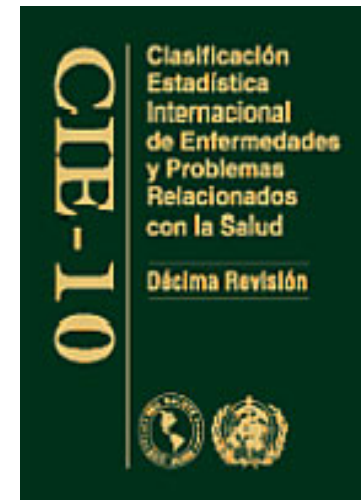
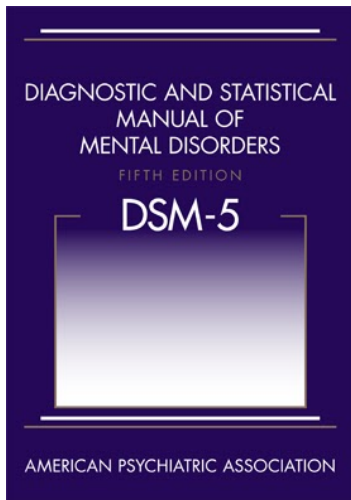
DEPRESSION

is a prison where you are both
the suffering *Prisoner*
and the cruel *Jailer*

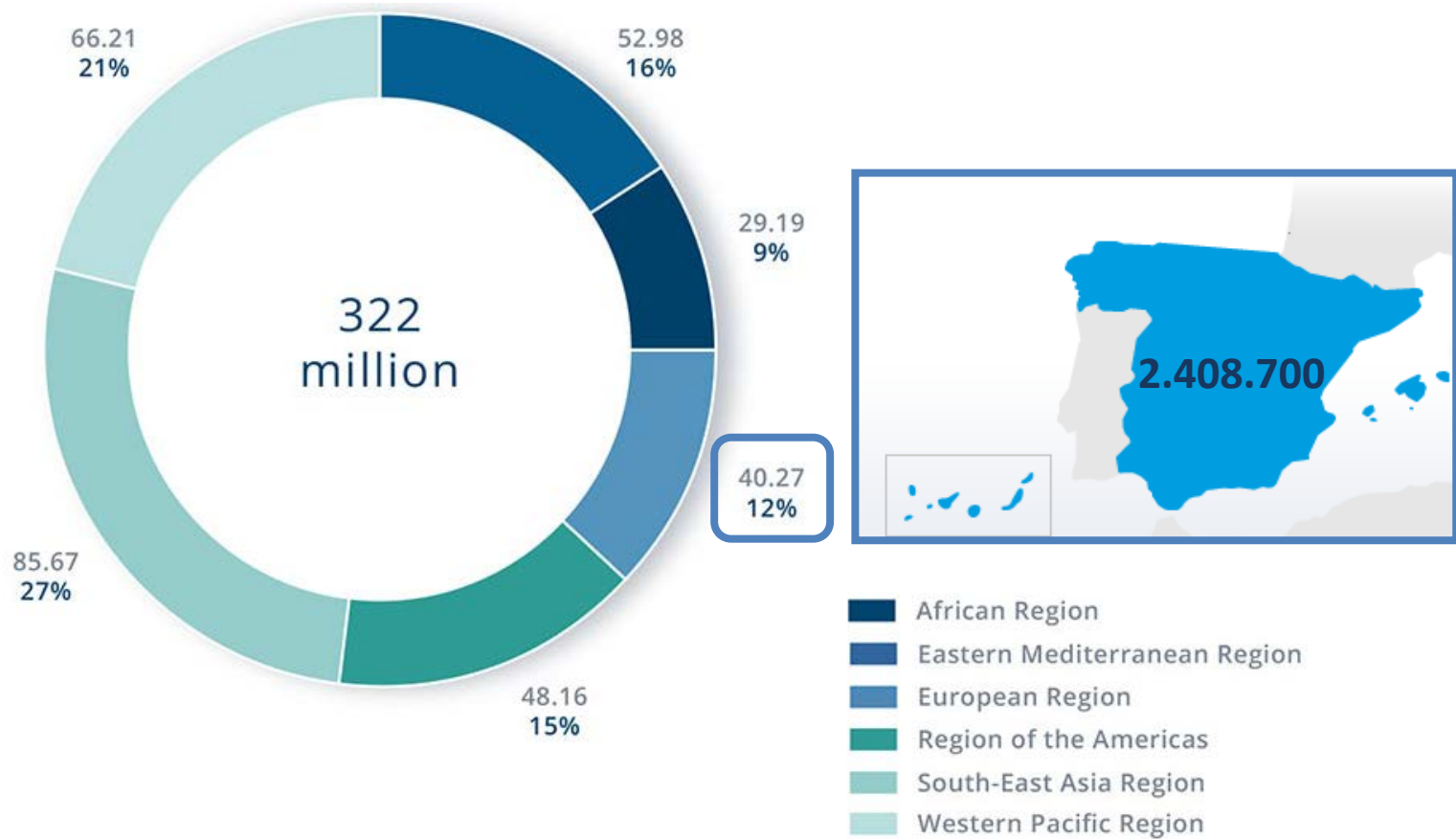
- Dorothy Rowe

Depresión

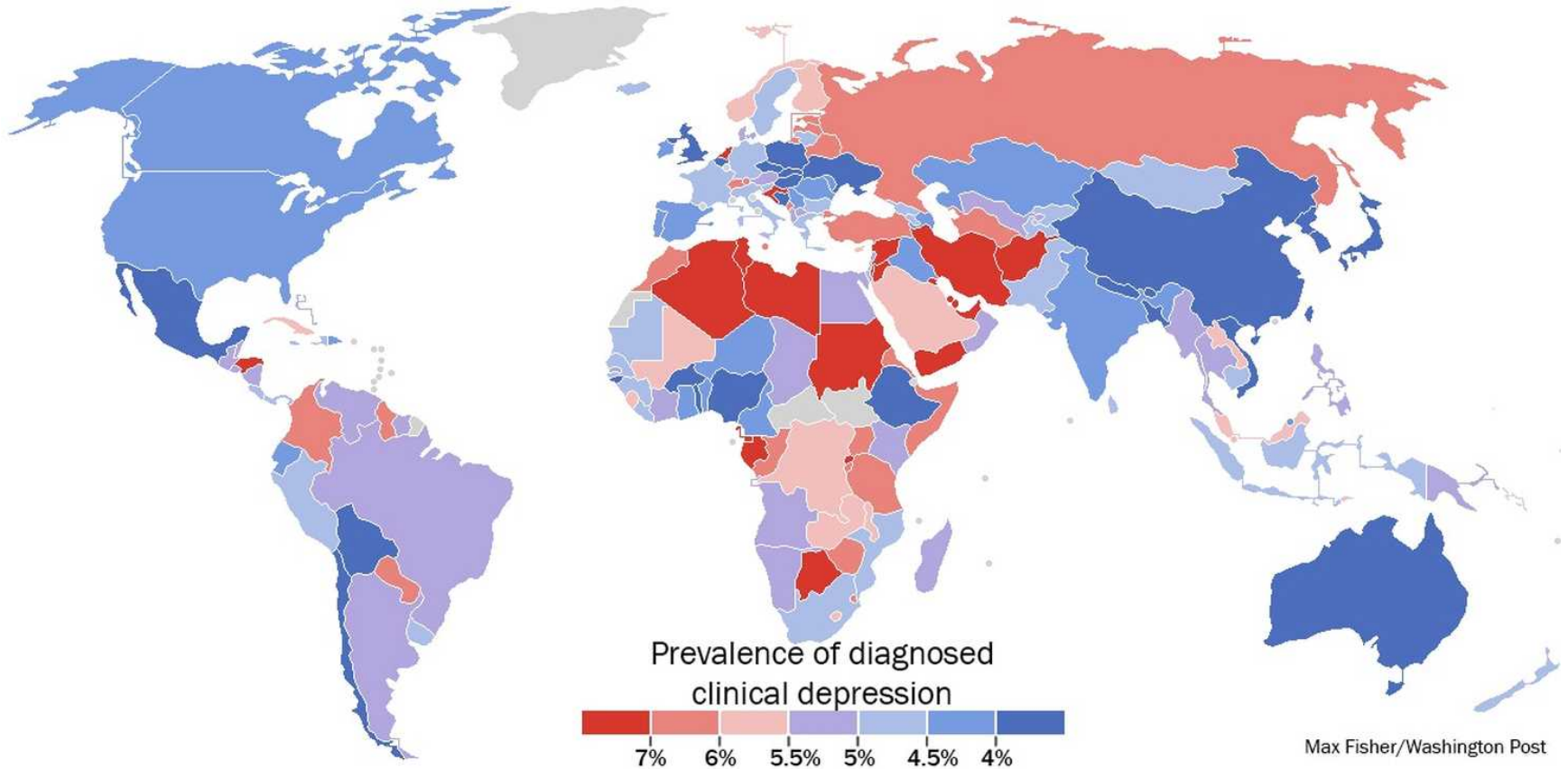
La depresión es un trastorno mental que se caracteriza por la presencia de tristeza, pérdida de interés o placer, sentimientos de culpa o falta de autoestima, trastornos del sueño o del apetito, sensación de cansancio y falta de concentración.



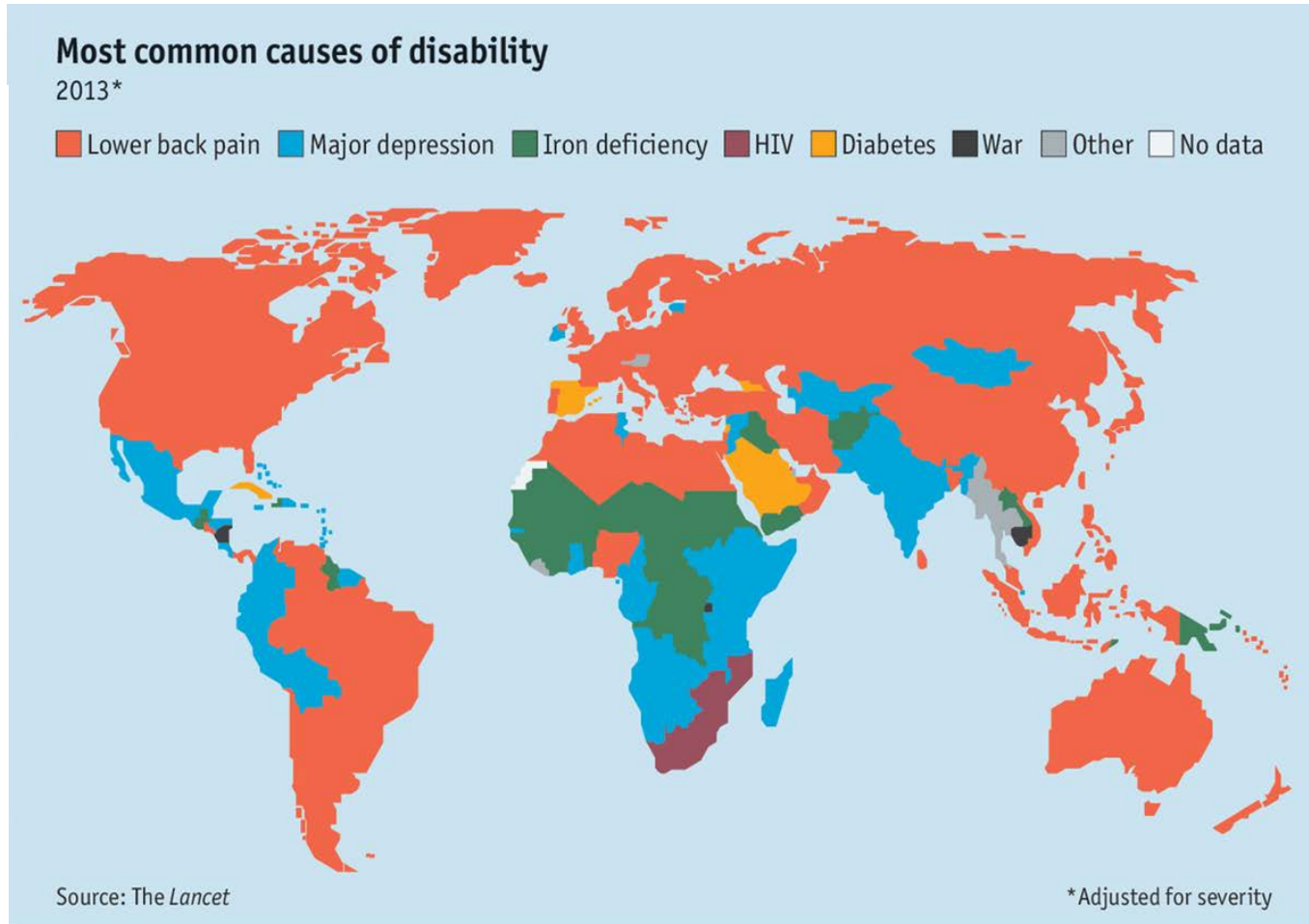
Depresión



Depresión



Depresión

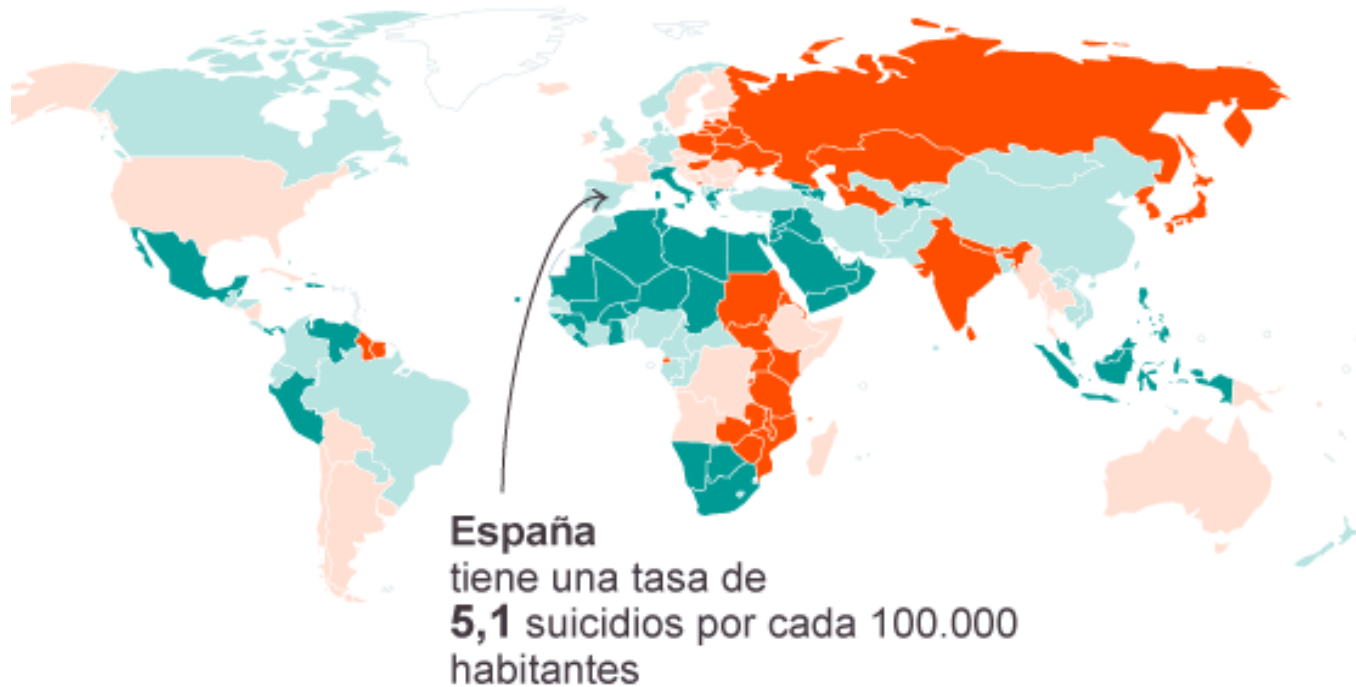
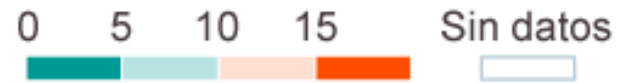


Global Burden of Disease Study 2013 Collaborators. Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*. 2015 Aug 22;386(9995):743-800.

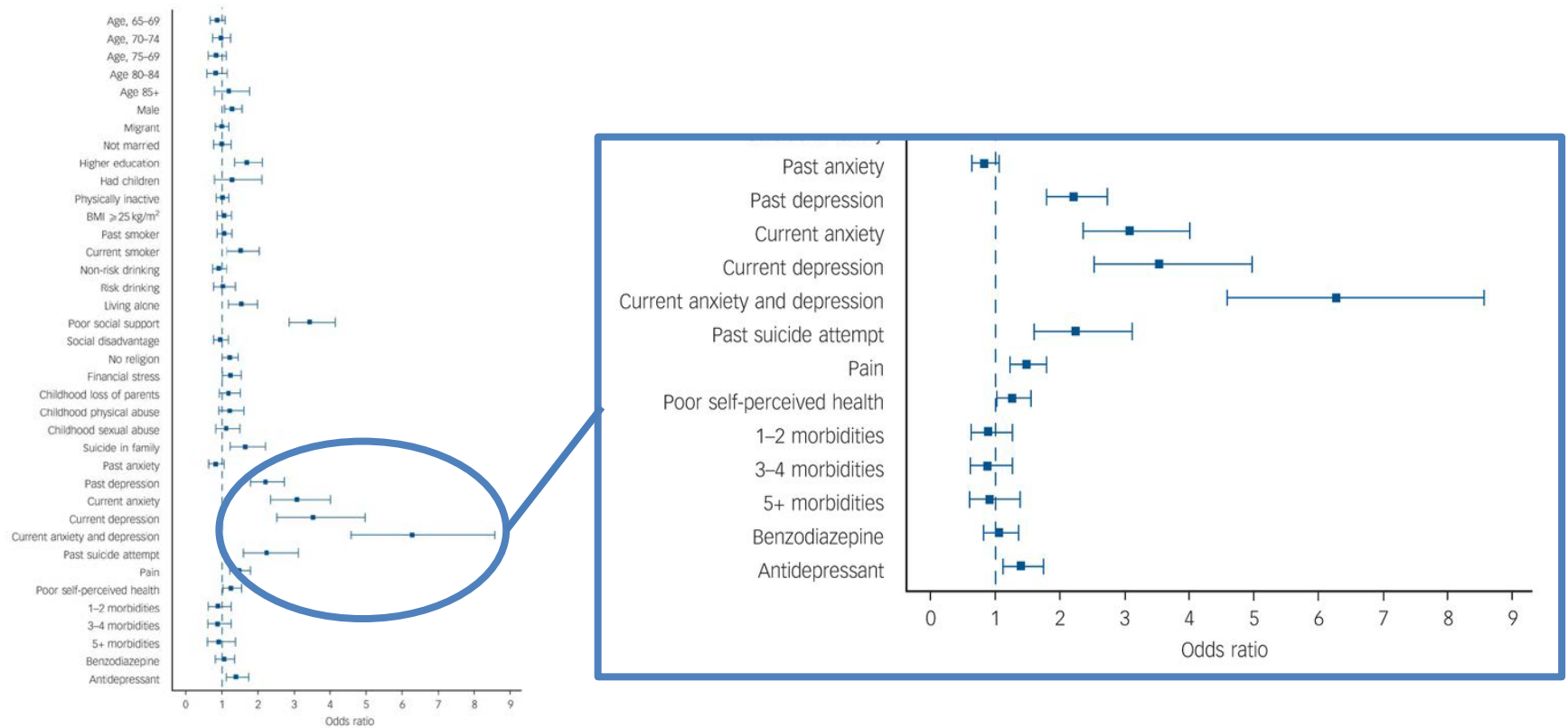
Depresión

SUICIDIOS EN EL MUNDO

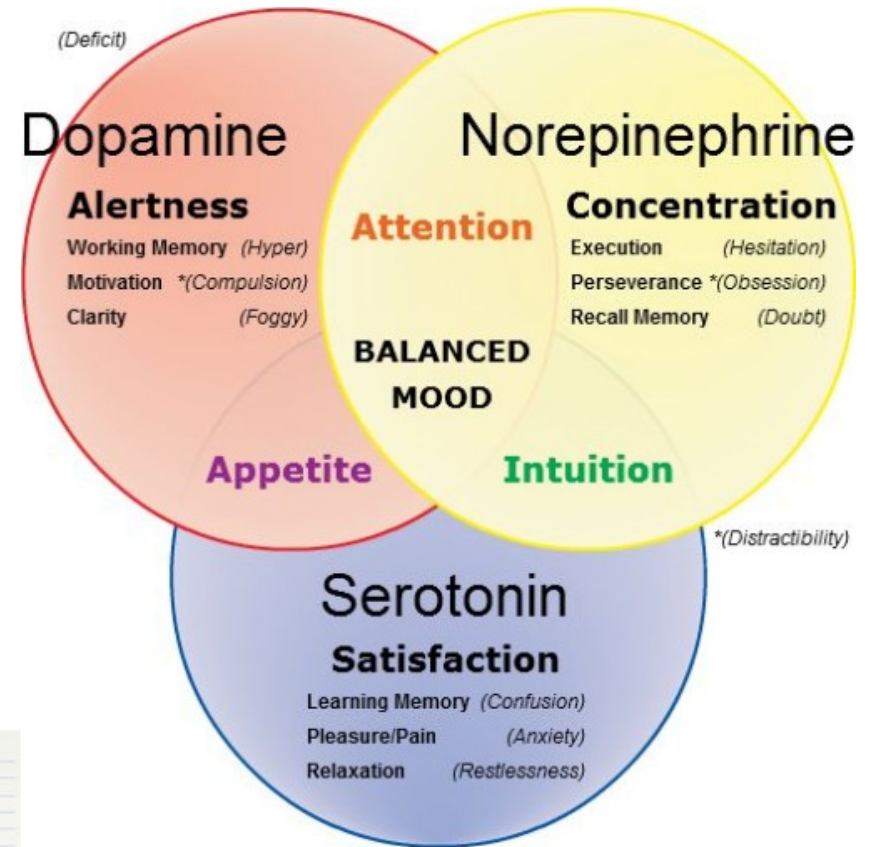
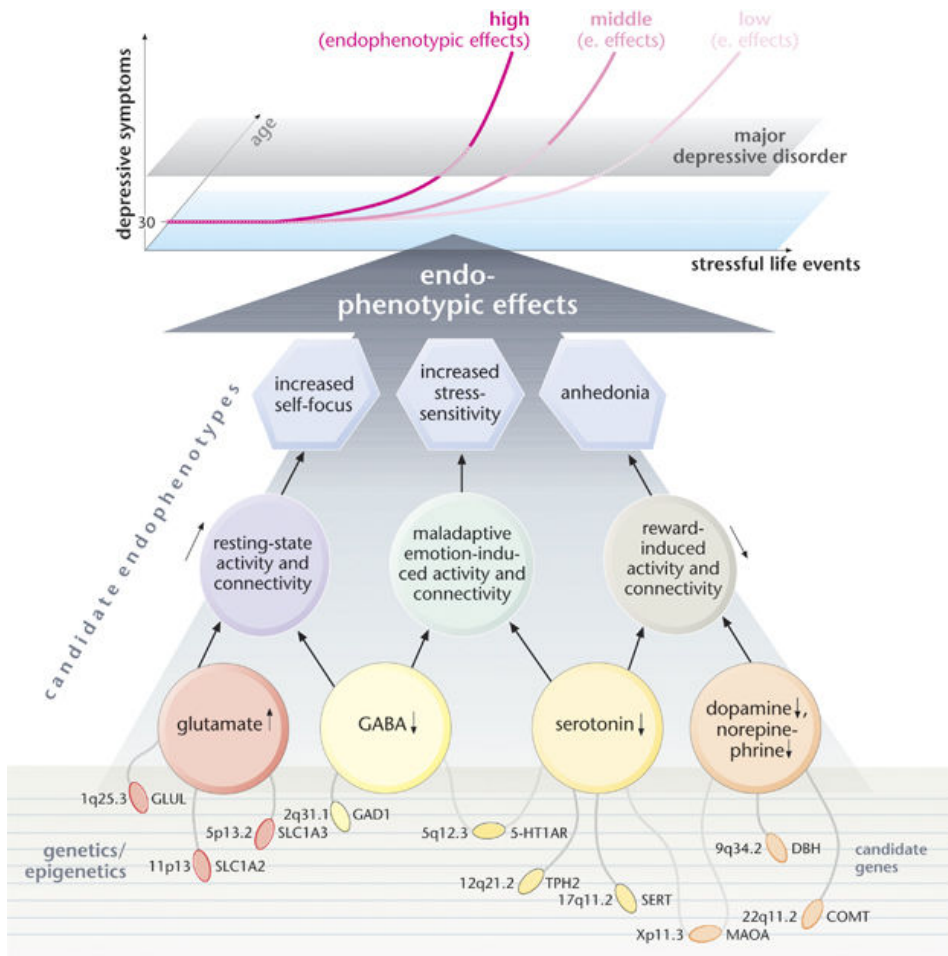
Tasa por cada 100.000 habitantes



Depresión

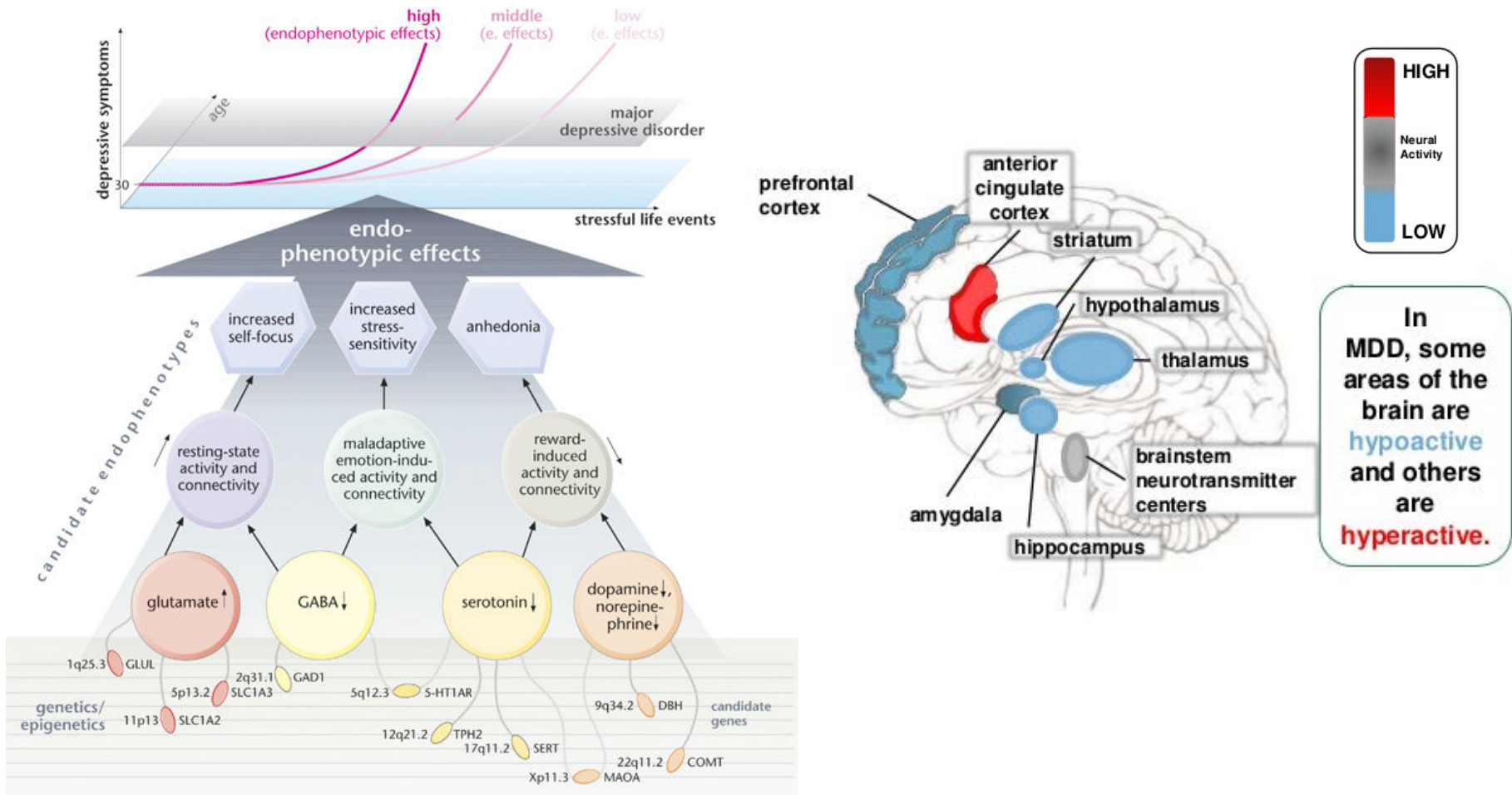


Depresión



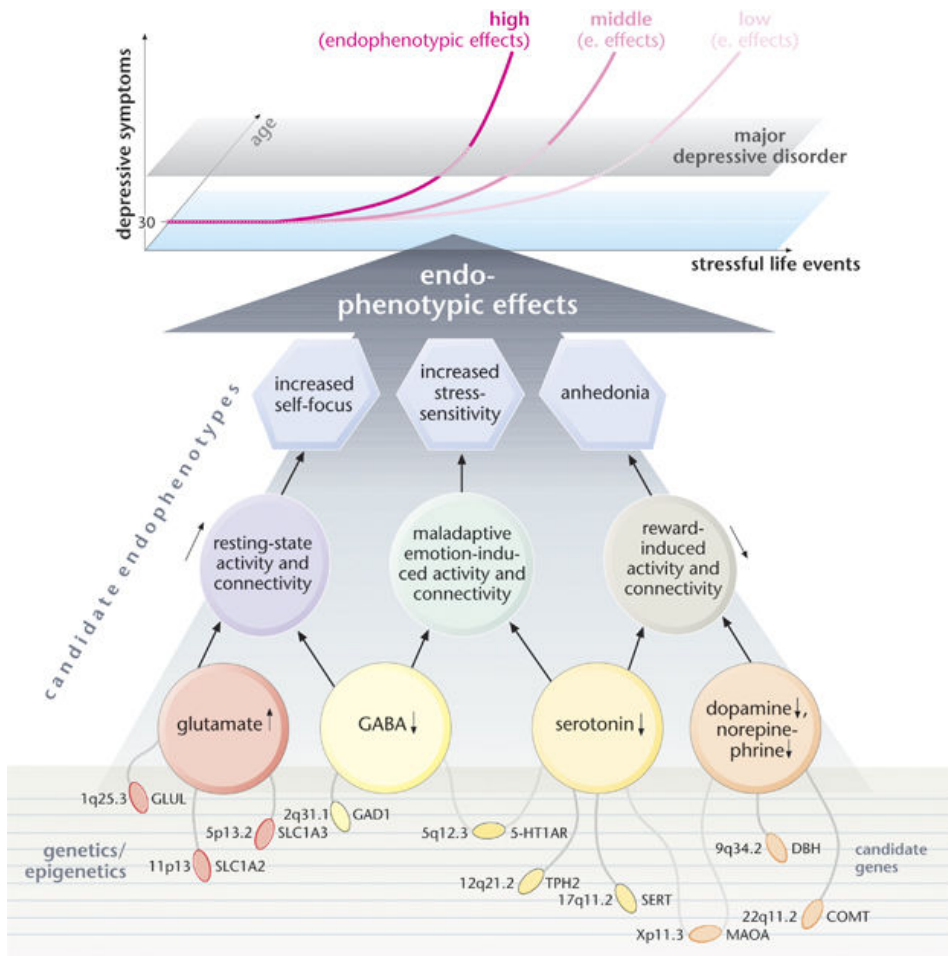
Hasler G et al. Discovering imaging endophenotypes for major depression. *Molecular Psychiatry* (2011) 16, 604–619.

Depresión



Hamilton JP et al. Amygdala volume in Major Depressive Disorder: A meta-analysis of magnetic resonance imaging studies. *Mol Psychiatry*. 2008 Nov; 13(11):993–1000. Stephanie Campbell S et al. Lower Hippocampal Volume in Patients Suffering From Depression: A Meta-Analysis. *Am J Psychiatry* 2004; 161:598–607

Depresión



Hamilton JP et al. Amygdala volume in Major Depressive Disorder: A meta-analysis of magnetic resonance imaging studies. *Mol Psychiatry*. 2008 Nov; 13(11):993–1000. Stephanie Campbell S et al. Lower Hippocampal Volume in Patients Suffering From Depression: A Meta-Analysis. *Am J Psychiatry* 2004; 161:598–607

Depresión



JAMA Psychiatry | Original Investigation

Association of Hormonal Contraception With Depression

Charlotte Wessel Skovlund, MSc; Lina Steinrud Mørch, PhD; Lars Vedel Kessing, MD, DMSc; Øyvind Lidgaard, MD, DMSc

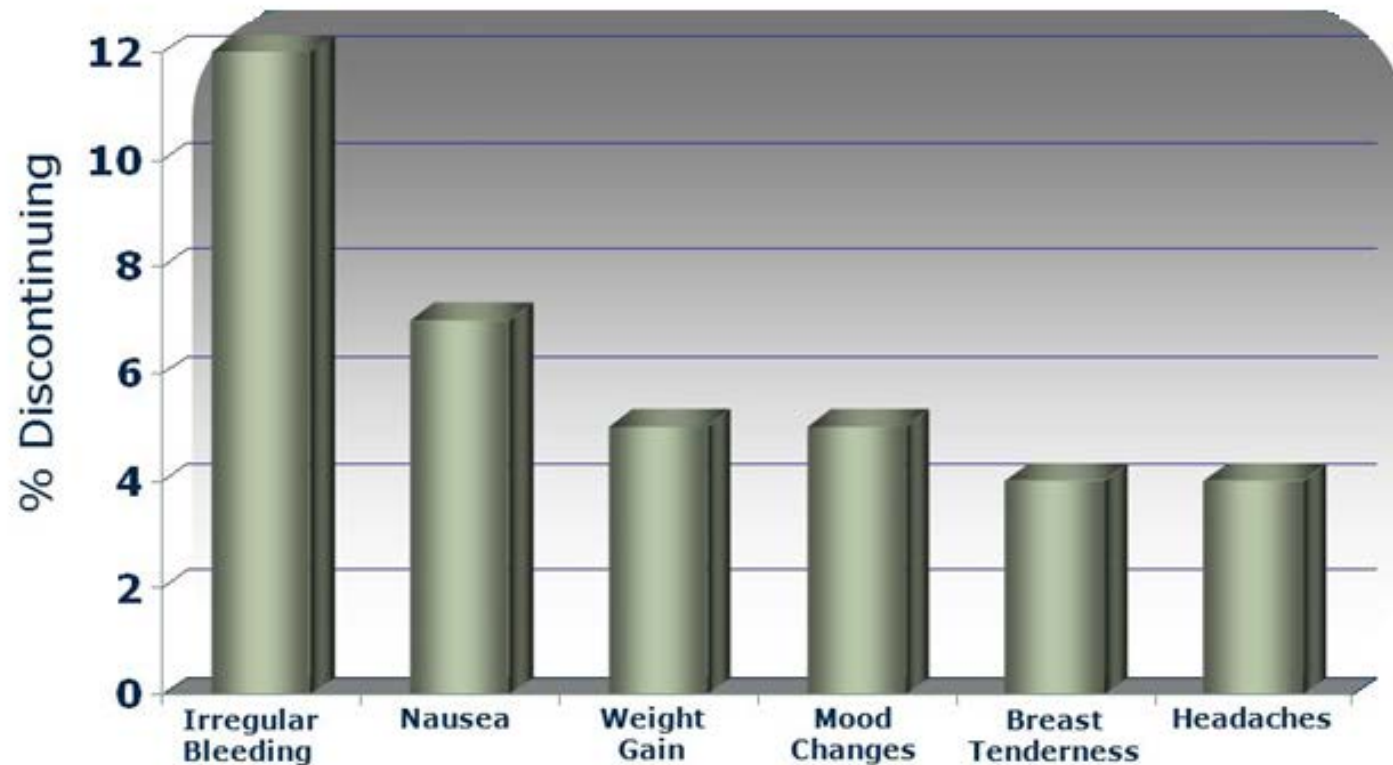
Sistema de clasificación de órganos	Común (≥ 1/100)	Poco común (≥ 1/1000 y < 1/100)	Raro (< 1/1000)
Alteraciones del sistema inmune			Hipersensibilidad
Alteraciones		Retención	

Sistema de clasificación de órganos	Común (≥ 1/100)	Poco común (≥ 1/1000 y < 1/100)	Raro (< 1/1000)
Trastornos psiquiátricos	Estado de ánimo depresivo. Estado de ánimo alterado	Disminución de la libido	Aumento de la libido

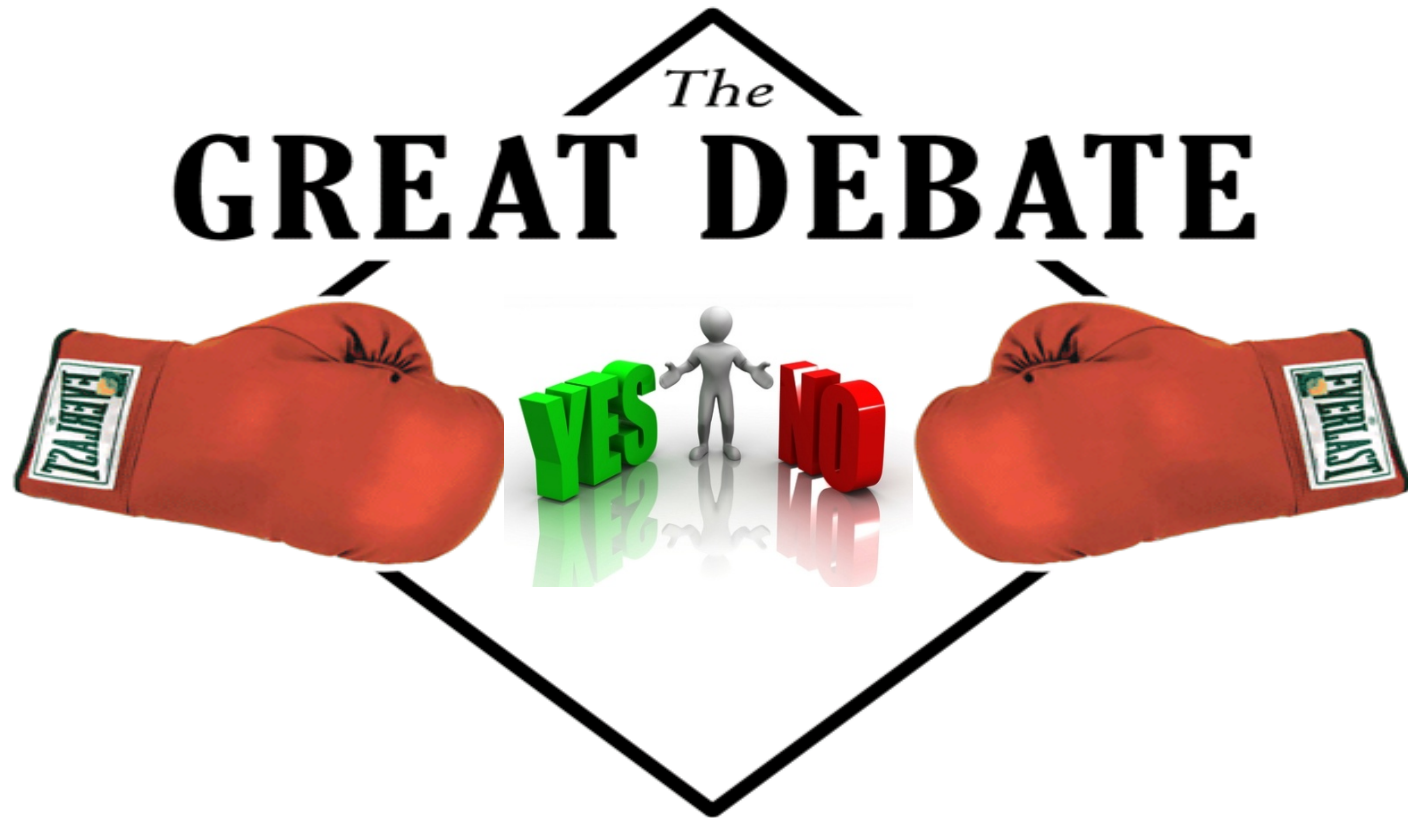
Durante la utilización de AOC, se han registrado empeoramiento de la **depresión** endógena, de la epilepsia, de la enfermedad de Crohn y de la colitis ulcerosa.

Trastornos de la piel y tejidos subcutáneos		Exantema, urticaria	Eritema nodoso, eritema multiforme
Trastornos del sistema reproductivo y mamas	Mastalgia, sensibilidad de las mamas	Aumento del tamaño de las mamas	Secreción vaginal, secreción mamaria
Investigaciones	Aumento de peso		Disminución de peso

Depresión



Rosenberg MJ, Waugh MS. Oral contraceptive discontinuation: a prospective evaluation of frequency and reasons. *Am J Obstet Gynecol.* 1998;179:Rosenberg MJ, et al. *Am J Obstet Gynecol.* 1998;179



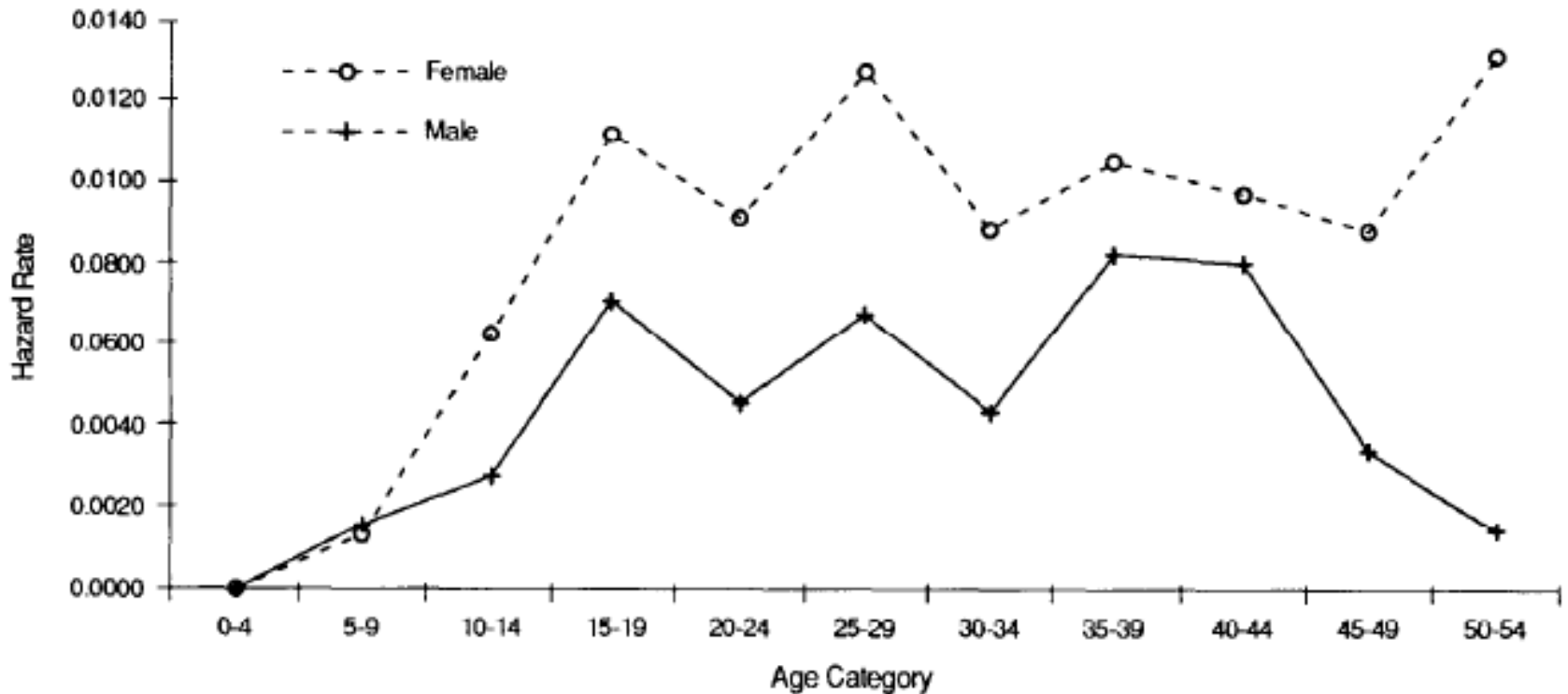
¿Se asocia a depresión el uso de la anticoncepción hormonal?

Índice

- **Hormonas endógenas y depresión**
- **Teorías bioquímicas**
- **Depresión y anticoncepción hormonal (AH)**
- **Factores de alteraciones del ánimo**
- **Recomendaciones guías**
- **Interacciones farmacológicas ATD y AH**
- **Métodos utilizados y cumplimiento**
- **Conclusiones**

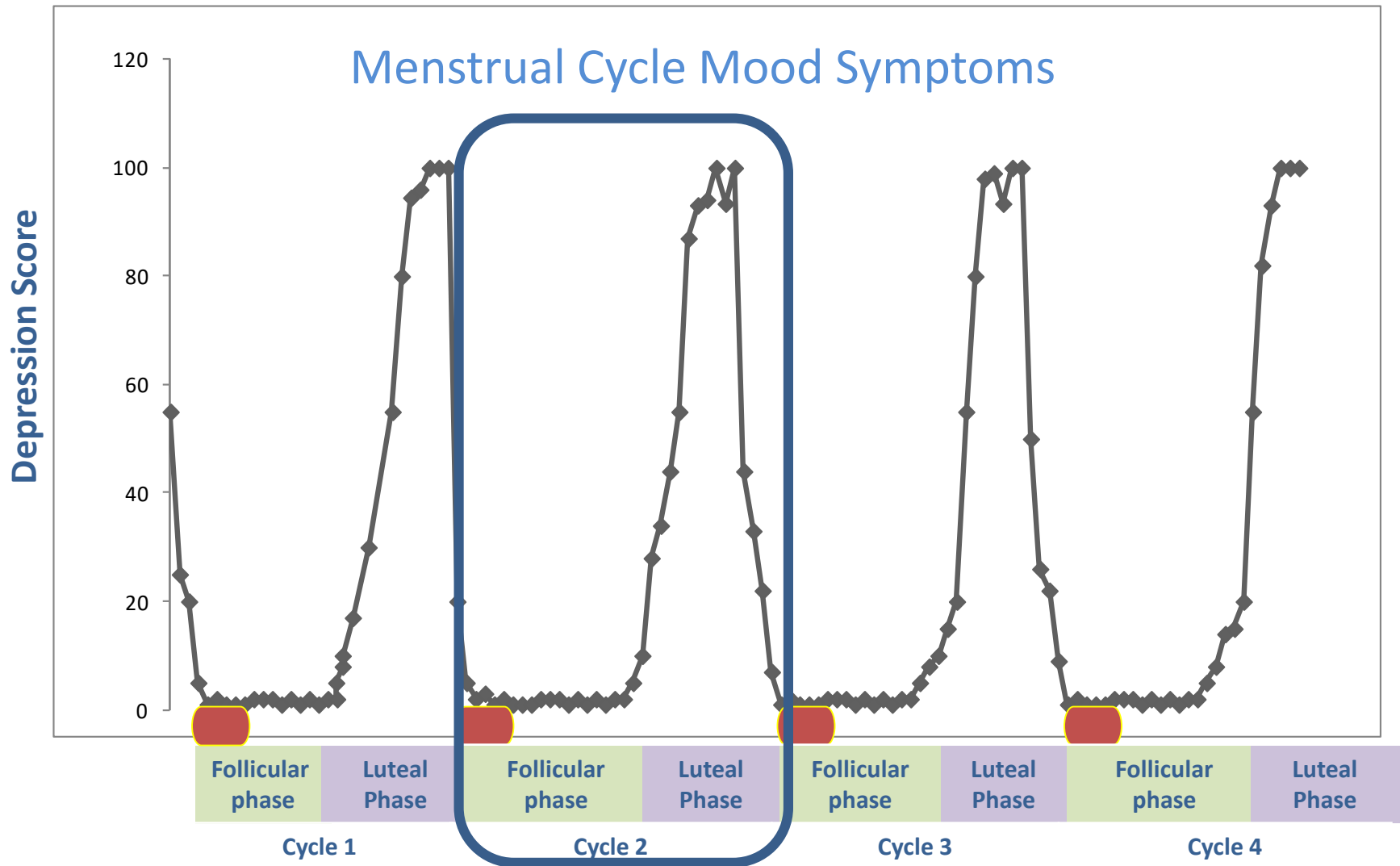
Hormonas endógenas y depresión

Women have twice the rate of MDD as men

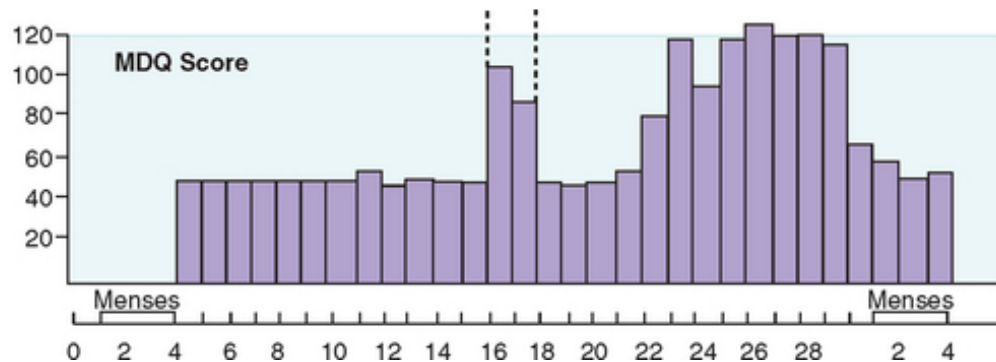


Kessler RC et al. Sex and depression in the National Comorbidity Survey. I: Lifetime prevalence, chronicity and recurrence. *J Affect Disord.* 1993 Oct-Nov;29(2-3):85-96.

Hormonas endógenas y depresión

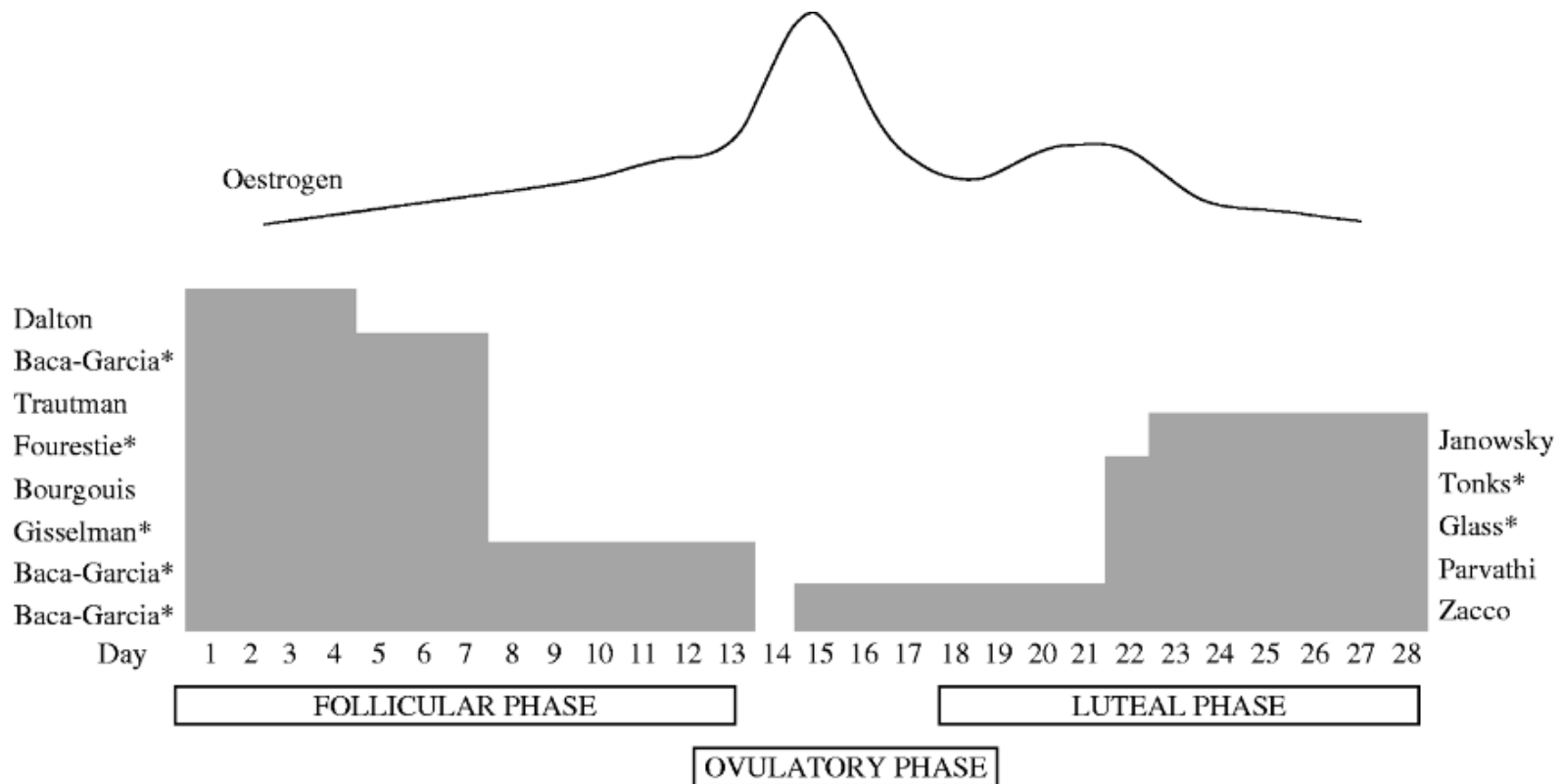


Hormonas endógenas y depresión



Hormonas endógenas y depresión

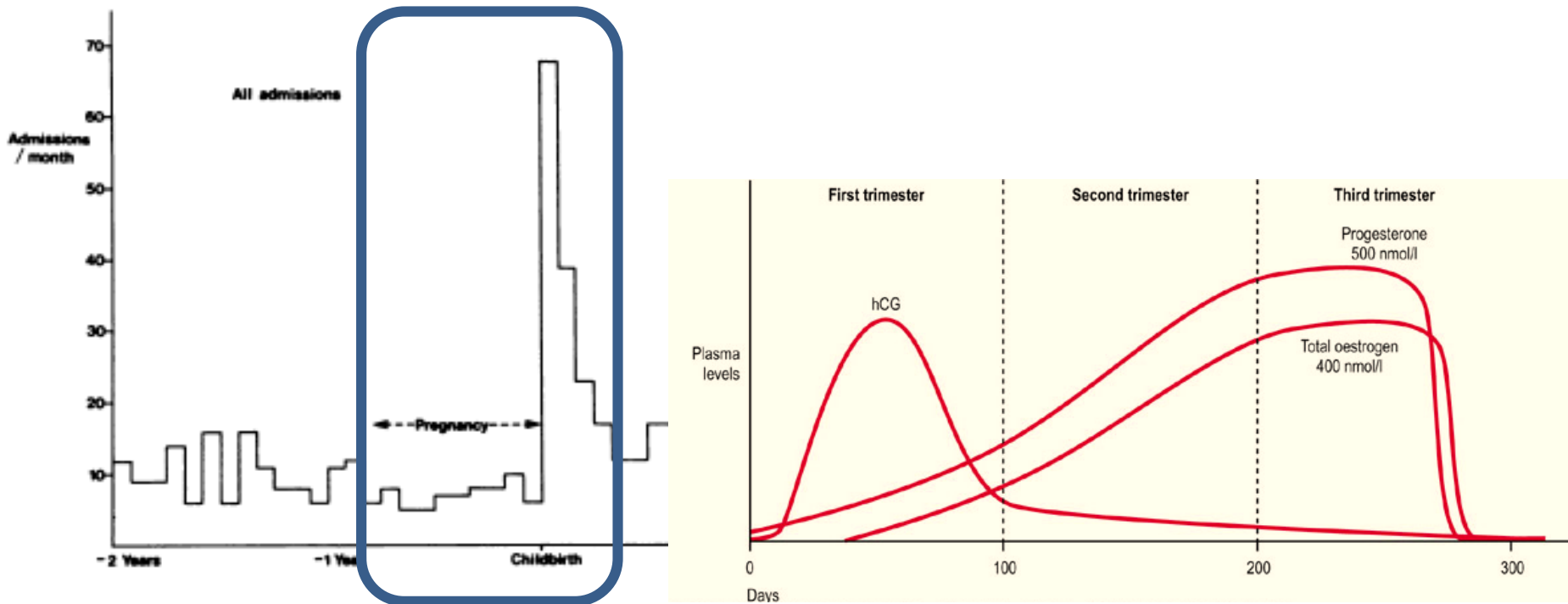
Suicide and Menstrual Cycle



*Denotes studies where results were statistically significant.

Hormonas endógenas y depresión

Childbirth and risk for psychiatric admission



Kendell RE et al. The social and obstetric correlates of psychiatric admission in the puerperium. *Psychol Med.* 1981 May;11(2):341-50.

Hormonas endógenas y depresión

Menopausia y perimenopausia

Correlational matrix of clinical measures, neuroticism, vasomotor symptoms, and depressive symptoms ($n = 111$).

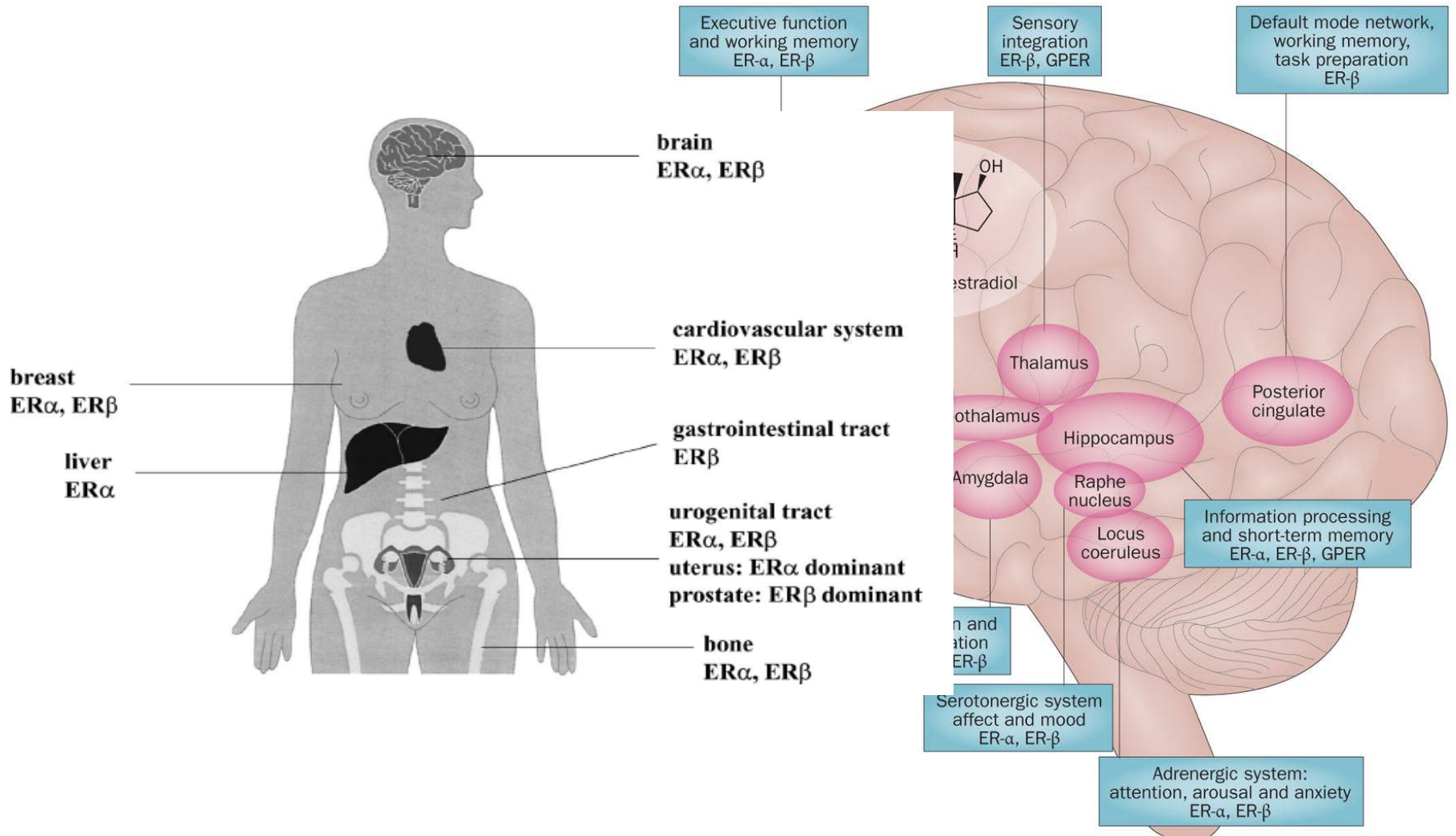
	1	2	3	4	5	6	7	8	9
(1) PMDD	1								
(2) History of MDD	0.13	1							
(3) PDD	0.22*	-0.03	1						
(4) Menopause status	-0.02	-0.04	0.02	1					
(5) Had received HT	0.00	-0.06	-0.05	0.46**	1				
(6) Neuroticism	0.24*	0.36**	0.05	0.15	-0.02	1			
(7) Vasomotor symptoms (time 1) ^a	0.22*	0.05	0.13	0.34**	0.07	0.48**	1		
(8) Depressive symptoms (time 1) ^b	0.19*	0.26**	0.09	0.17	0.09	0.59**	0.44**	1	
(9) Depressive symptoms (time 2) ^c	0.12	0.30**	0.13	0.14	0.02	0.65**	0.36**	0.72**	1

* $p < 0.05$.

** $p < 0.01$.

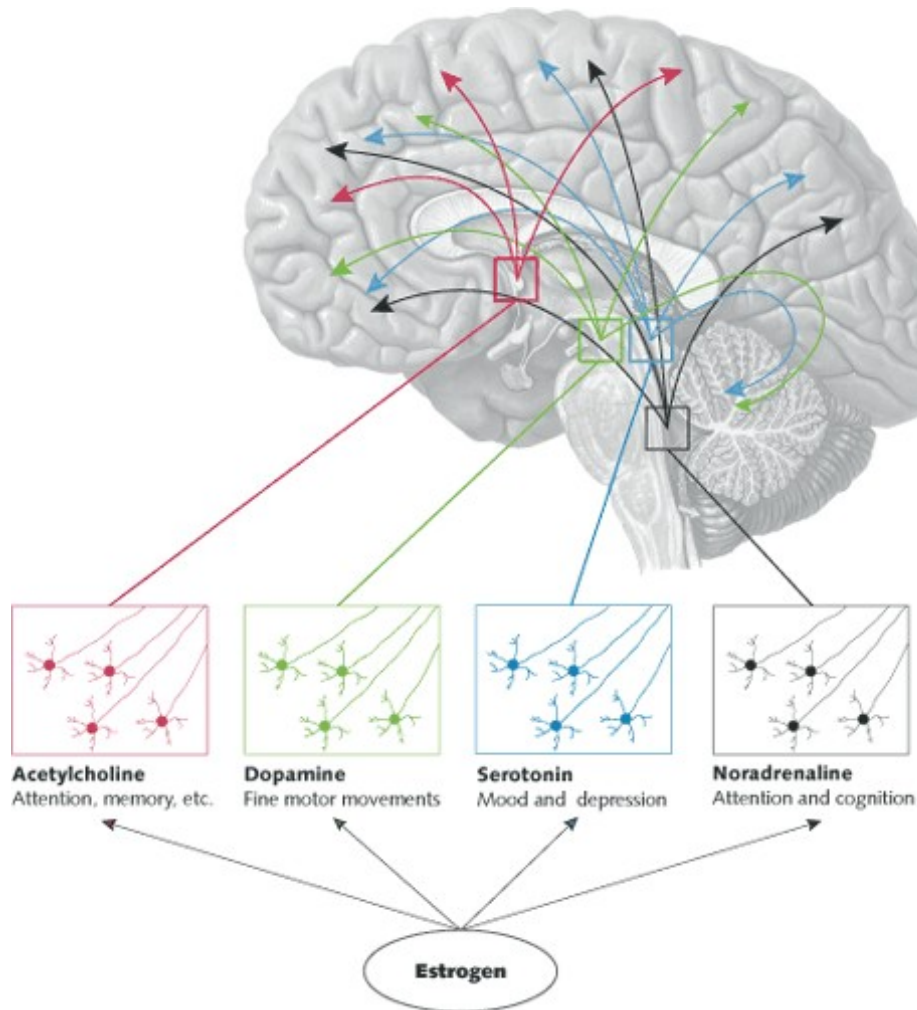
Weber MT et al. Cognition and mood in perimenopause: A systematic review and meta-analysis. *J Steroid Biochem Mol Biol.* 2014 July ; 0: 90–98. Cheng-Hsiang Chou et al. Effect of previous diagnoses of depression, menopause status, vasomotor symptoms, and neuroticism on depressive symptoms among climacteric women: A 30-month follow-up. *Taiwanese Journal of Obstetrics & Gynecology* 54 (2015) 385e389

Teorías bioquímicas



Brinton RD et al. Progesterone receptors: form and function in brain. *Front Neuroendocrinol.* 2008 May;29(2):313-39. Bethea CL et al. Ovarian steroids and serotonin neural function. *Mol Neurobiol.* 1998 Oct;18(2):87-123.

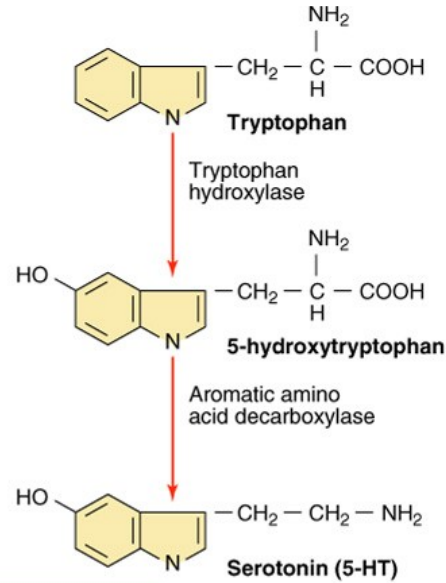
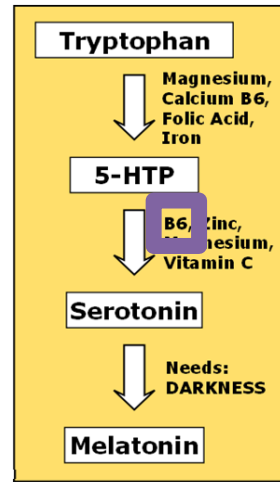
Teorías bioquímicas



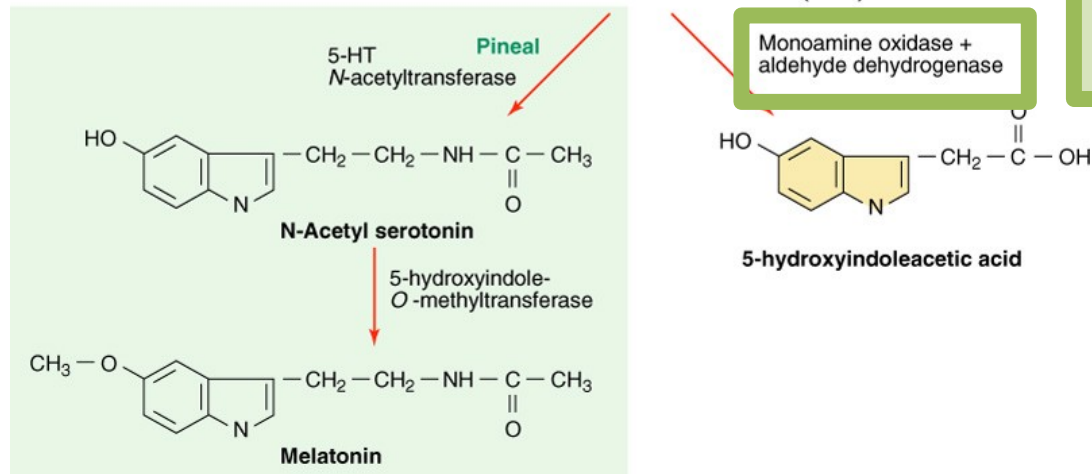
Brinton RD et al. Progesterone receptors: form and function in brain. *Front Neuroendocrinol.* 2008 May;29(2):313-39. Bethea CL et al. Ovarian steroids and serotonin neural function. *Mol Neurobiol.* 1998 Oct;18(2):87-123.

Teorías bioquímicas

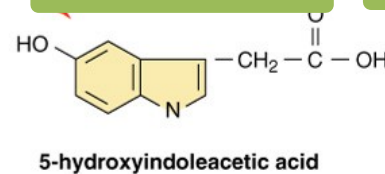
Estrógeno
disminuiría
piridoxina



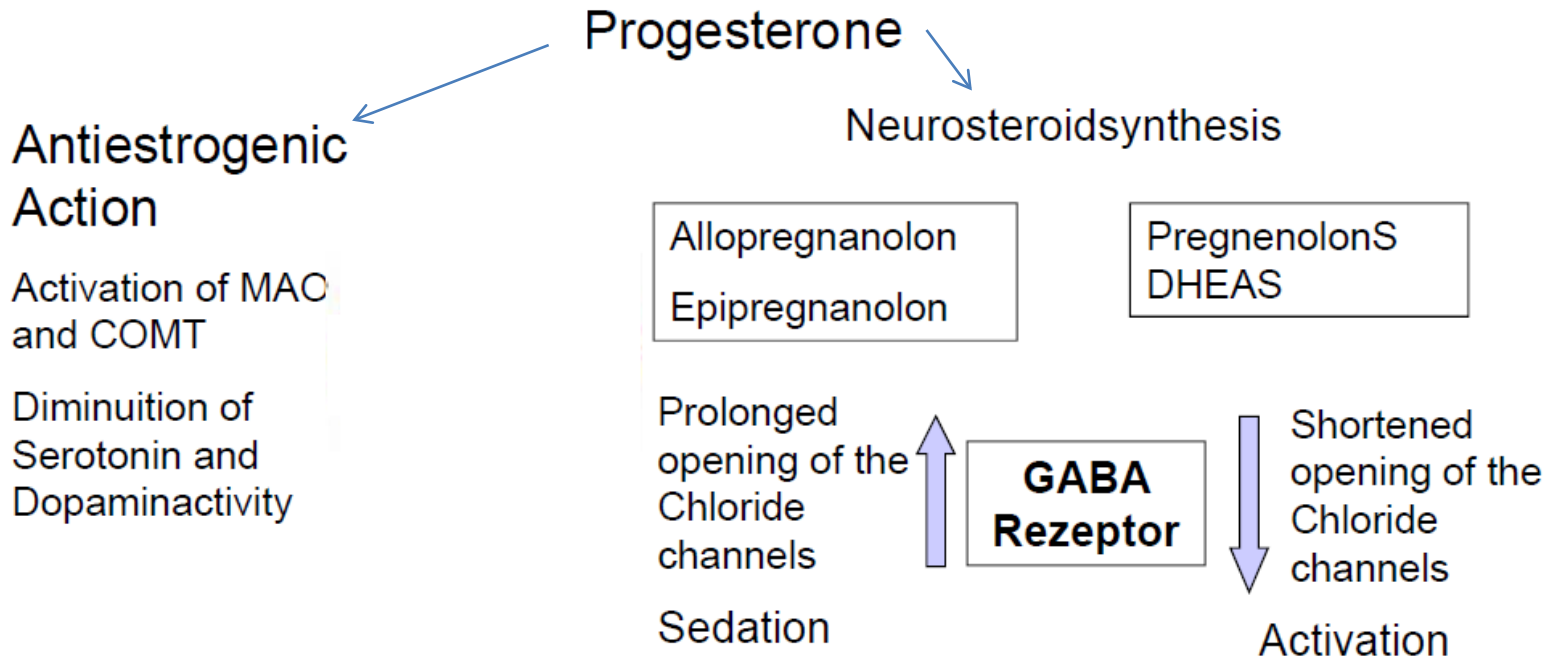
Gestágeno
incrementaría
la MAO



Monoamine oxidase +
aldehyde dehydrogenase



Teorías bioquímicas



GABA A receptors → anti-anxiety, antidepressive effects

Benzodiazepines → GABA A receptors



Anticonceptivos y depresión

Artículos que demuestran una asociación positiva

- Keyes KM et al. Association of Hormonal Contraceptive Use With Reduced Levels of Depressive Symptoms: A National Study of Sexually Active Women in the United States. *Am J Epidemiol.* 2013 Nov 1; 178(9): 1378–1388
- Young EA et al. Influences of hormone-based contraception on depressive symptoms in premenopausal women with major depression. *Psychoneuroendocrinology.* 2007;32:843–853.
- Pearlstein TB et al. Treatment of pre- menstrual dysphoric disorder with a new drospirenone- containing oral contraceptive formulation. *Contraception.* 2005;72:414–421.
- Abraham S et al. Oral contraception and cyclic changes in premenstrual and menstrual experience. *Psychosomatic Obstetric Gynecologic Journal* 2003, 24:185–193.
- Oinonen KA, Mazmanian D. To what extent do oral contraceptives influence mood and affect? *J Affect Disord.* 2002;70: 229–240.

Anticonceptivos y depresión

Artículos que demuestran una asociación neutra

- Toffol E et al. Further evidence for lack of negative associations between hormonal contraception and mental health. *Contraception*. 2012;86(5):470-480
- Toffol E et al. Hormonal contraception and mental health: results of a population-based study. *Hum Reprod*. 2011;26(11):3085-3093.
- Bastani F et al. Does oral contraceptive pill influence women's mood and stress level? *Iran Obstetric and Gynecol Journal* 2009, 60:65–74
- O'Connell K, Davis AR, Kerns J. Oral contraceptives: side effects and depression in adolescent girls. *Contraception* 2007;75:299–304
- Rapkin AJ et al. Decreased neuroactive steroids induced by combined oral contraceptive pills are not associated with mood changes. *Fertil Steril*. 2006;85:1371–1378
- Robinson SA et al. Do the emotional side-effects of hormonal contraceptives come from pharmacologic or psychological mechanisms? *Med Hypotheses* 2004;63:268-73.
- Joffe H et al. Impact of oral contraceptive pill use on premenstrual mood: predictors of improvement and deterioration. *Am J Obstet Gynecol*. 2003 Dec;189(6):1523-30.

Anticonceptivos y depresión

Artículos que demuestran una asociación negativa

- Skovlund CW et al. Association of Hormonal Contraception With Depression. *JAMA Psychiatry*. 2016 Nov 1;73(11):1154-1162.
- Shakerinejad G et al. Factors predicting mood changes in oral contraceptive pill users. *Reprod Health*. 2013 Sep 9;10:45.
- Lindberg M et al. Differences in prescription rates and odds ratios of antidepressant drugs in relation to individual hormonal contraceptives. *Eur J Contracept Reprod Health Care*. 2012;17(2): 106-118.
- Wiebe ER et al. Characteristics of women who experience mood and sexual side effects with use of hormonal contraception. *J Obstet Gynaecol Can*. 2011;33(12):1234-1240.
- Wiréhn AB et al. Use of hormonal contraceptives in relation to antidepressant therapy: a nationwide population-based study. *Eur J Contracept Reprod Health Care*. 2010;15(1):41-47.
- Duke JM et al. Is there an association between the use of oral contraception and depressive symptoms in young Australian women? *Contraception*. 2007;75(1):27-31.

La pesadilla de una joven con las pastillas anticonceptivas: “Sentía que una maldición recorría mis venas”

Redacción
BBC Mundo

ABC SOCIEDAD

12 enero 2017

TITULARES

Las seis noticias clave de este martes

Los anticonceptivos, al banquillo por promover la depresión en mujeres que sufren bruscos cambios hormonales

• Un estudio publicado en *parche, anillo...*) y la depi

ELMUNDO

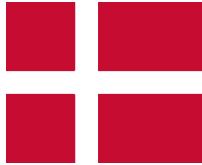
ACTUALIDAD

Anticonceptivos y depresión: lo que de verdad se sabe



La salud mental de V

Anticonceptivos y depresión



JAMA Psychiatry | Original Investigation

Association of Hormonal Contraception With Depression

Charlotte Wessel Skovlund, MSc; Lina Steinrud Mørch, PhD; Lars Vedel Kessing, MD, DMSc;
Øjvind Lidegaard, MD, DMSc

Key Points

Question Is use of hormonal contraception associated with treatment of depression?

Findings In a nationwide prospective cohort study of more than 1 million women living in Denmark, an increased risk for first use of an antidepressant and first diagnosis of depression was found among users of different types of hormonal contraception, with the highest rates among adolescents.

Meaning Health care professionals should be aware of this relatively hitherto unnoticed adverse effect of hormonal contraception.

Anticonceptivos y depresión

Table 2. Rate Ratio of First Use of Antidepressants and First Diagnosis of Depression in All Women*

Oral							
Ethinyl estradiol, 50 µg							
Norethisterone	8060	176	1.5 ^d	1.5 (1.26-1.69) ^d	22	1.3	1.2 (0.77-1.79)
Levonorgestrel						1.5 ^d	1.4 (1.09-1.78) ^d
Ethinyl estradiol, 30-40 µg							
Norethisterone						0.9	0.9 (0.70-1.11)
Levonorgestrel						1.0	1.1 (1.02-1.17) ^d
Norgestimate						1.0	1.1 (1.00-1.14) ^d
Desogestrel						1.1 ^d	1.2 (1.07-1.27) ^d
Gestodene						1.0	1.1 (1.03-1.13) ^d
Drospirenone						1.2 ^d	1.3 (1.23-1.38) ^d
Cyproterone acetate						1.2 ^d	1.3 (1.17-1.38) ^d
Ethinyl estradiol, 20 µg							
Desogestrel						1.0	1.1 (1.00-1.10) ^d
Gestodene						1.0	1.1 (1.00-1.10)
Drospirenone						1.2 ^d	1.3 (1.15-1.44) ^d
Natural estrogen							
Dienogest	3711	119	1.7 ^d	1.8 (1.49-2.14) ^d	29	1.8 ^d	1.9 (1.31-2.72) ^d
norethisterone	55 162	111	1.2 ^d	1.5 (1.18-1.97) ^d	110	1.0	1.1 (0.86-1.29)
Levonorgestrel	1289	31	1.5 ^d	1.7 (1.18-2.38) ^d	4	1.3	1.5 (0.54-3.86)
Desogestrel	40 069	1082	1.3 ^d	1.4 (1.30-1.46) ^d	182	1.2 ^d	1.2 (1.06-1.42) ^d
Nonoral							
Levonorgestrel IUS	81 281	2373	1.4 ^d	1.4 (1.31-1.42) ^d	397	1.4 ^d	1.4 (1.22-1.50) ^d

● Desogestrel-containing pills are superior to levonorgestrel-containing pills

○ *Bruni V et al, Gynecol Endocrinol, 2000; Winkler UH et al, Contraception, 2004.*

● Drospirenone-containing pills are superior to levonorgestrel-containing pills

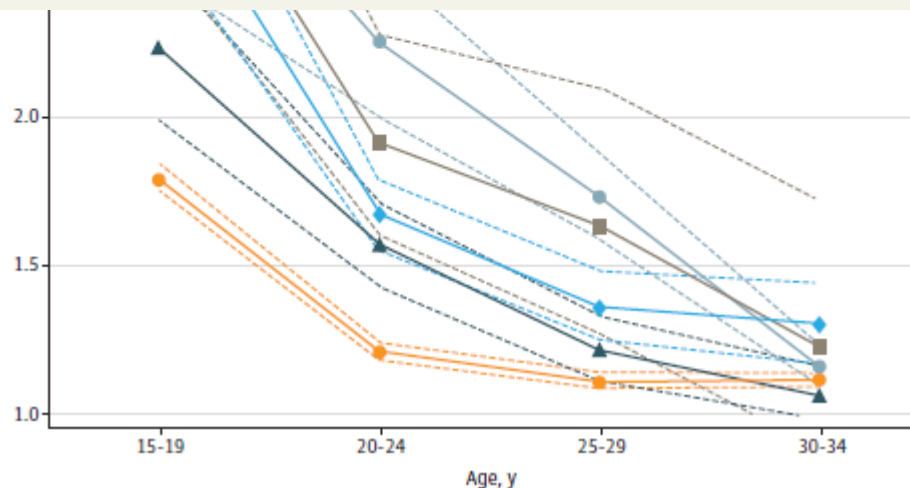
○ *Sangthawan M et al, Contraception, 2005; Kelly S et al, Clin Drug Investig, 2010.*

Anticonceptivos y depresión



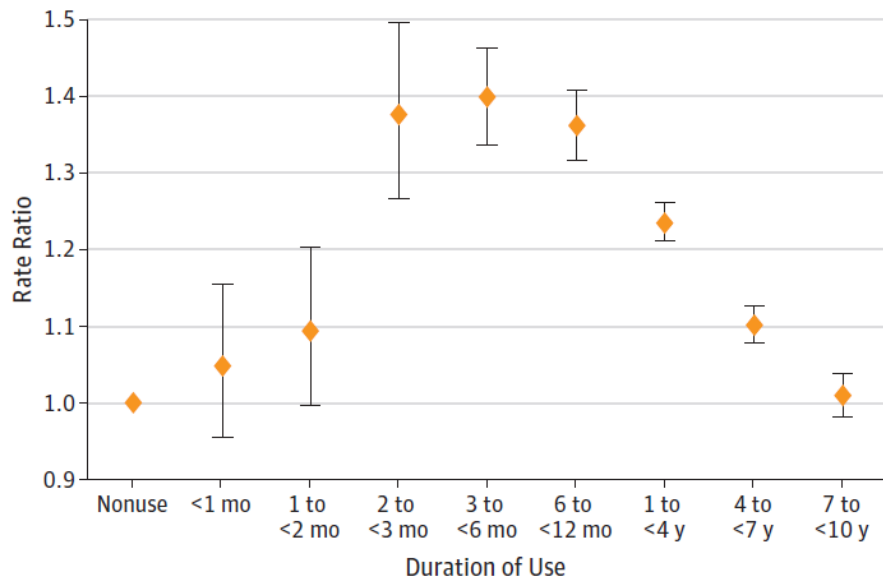
Table 3. Rate Ratio of First Use of Antidepressants and First Diagnosis of Depression Among Adolescents^a

Type of Hormonal Contraception	First Use of Antidepressants			First Diagnosis of Depression		
	Person-years	No. of Events	RR (95% CI) ^b	Person-years	No. of Events	RR (95% CI) ^b
Nonuse	1 094 654	10 257	1 [Reference]	1 106 800	2496	1 [Reference]
All oral combined	916 691	18 597	1.8 (1.75-1.84) ^c	943 325	3738	1.7 (1.63-1.81)
All progestin-only pills	10 277	287	2.2 (1.99-2.52) ^c	10 683	56	1.9 (1.49-2.53) ^c

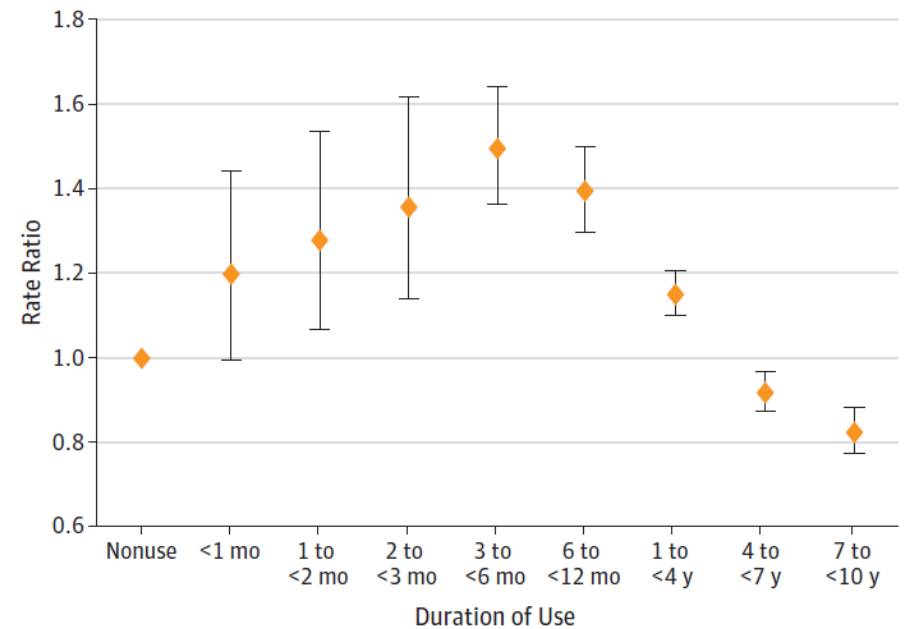


Anticonceptivos y depresión

A First use of antidepressants



B First diagnosis of depression



Anticonceptivos y depresión

- **Limitaciones del estudio**

- Estudio de cohorte prospectivo.
- Población danesa.
- No análisis multivariate.
- Inicio tto antidepresivo o dx depresión en unidades psiquiátricas de clínicas o hospital.
- Criterios diagnósticos no homegéneos.
- Antidepresivos usados en otras patologías (el 80% de los IRS son pautados por depresión).
- Muchos otros estudios con resultados diferentes.

Anticonceptivos y depresión

Table 1
Reported side effects with oral contraceptives and placebos in recent randomized controlled trials

Author and year	Oral contraceptive	No. of participants	Outcomes	Findings
Redmond et al., 1999 [20]	Triphasic pill with ethinyl estradiol 35 mcg plus norgestimate 0.18 mg, 0.215 mg, then 0.250 mg	462 (two trials combined) with moderate acne studied for six cycles	Headache, nausea, dysmenorrhea, breast pain, abdominal pain, back pain, vomiting, breast enlargement, emotional lability, weight gain, decreased libido	No statistically significant differences
Coney et al., 2001 [21]	Combination pill with ethinyl estradiol 20 mcg plus levonorgestrel 100 mcg	704 (two trials combined) with moderate acne studied for six cycles	Any adverse event	No statistically significant differences: headache, nausea, breast pain, weight gain, migraine headache, vomiting. Statistically significantly more: metrorrhagia, menstrual disorder, "allergic reaction," menorrhagia, and urticaria
O'Connell et al., 2007 [23]	Combination pill with ethinyl estradiol 20 mcg plus levonorgestrel 100 mcg	76 adolescents with dysmenorrhea studied for three cycles	Depressive symptoms; headache, nausea, acne, abdominal pain, back pain, vomiting, breast tenderness, breast enlargement, mood swings, weight gain, premenstrual syndrome and irregular bleeding	No statistically significant differences

Anticonceptivos y depresión

Am J Epidemiol. 2013 Nov 1;178(9):1378-88. doi: 10.1093/aje/kwt188. Epub 2013 Sep 15.

Association of hormonal contraceptive use with reduced levels of depressive symptoms: a national study of sexually active women in the United States.

Keyes KM, Cheslack-Postava K, Westhoff C, Heim CM, Haloossim M, Walsh K, Koenen K.

Abstract

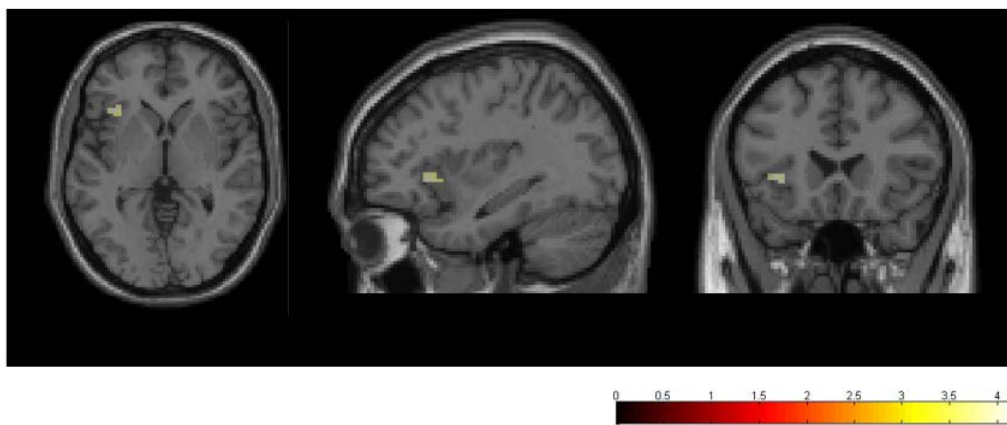
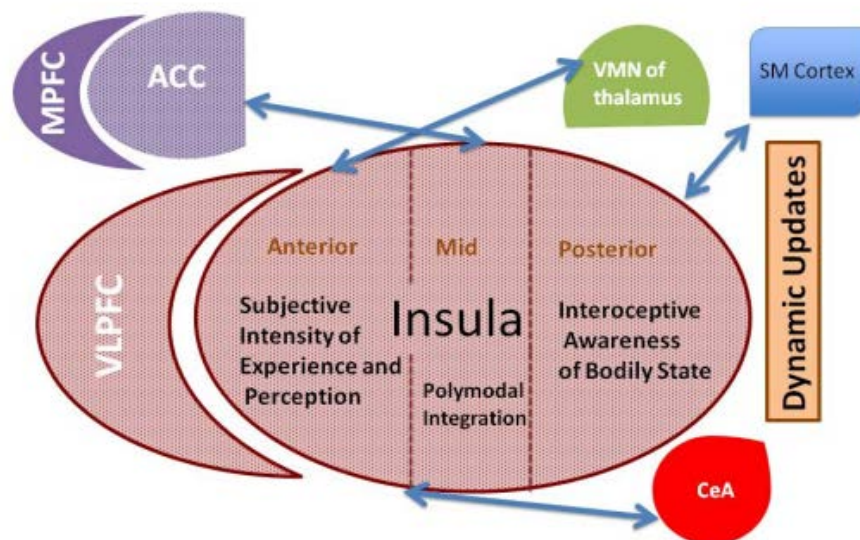
An estimated 80% of sexually active young women in the United States use hormonal contraceptives during their reproductive years. Associations between hormonal contraceptive use and mood disturbances remain understudied, despite the hypothesis that estrogen and progesterone play a role in mood problems. In this study, we used data from 6,654 sexually active nonpregnant women across 4 waves of the National Longitudinal Study of Adolescent Health (1994-2008), focusing on women aged 25-34 years. Women were asked about hormonal contraceptive use in the context of a current sexual partnership; thus, contraceptive users were compared with other sexually active women who were using either nonhormonal contraception or no contraception. Depressive symptoms were assessed with the Center for Epidemiologic Studies Depression Scale. At ages 25-34 years, hormonal contraceptive users had lower mean levels of concurrent depressive symptoms ($\beta = -1.04$, 95% confidence interval: $-1.73, -0.35$) and were less likely to report a past-year suicide attempt (odds ratio = 0.37 , 95% confidence interval: $0.14, 0.95$) than women using low-efficacy contraception or no contraception, in models adjusted for propensity scores for hormonal contraceptive use. Longitudinal analyses indicated that associations between hormonal contraception and depressive symptoms were stable. Hormonal contraception may reduce levels of depressive symptoms among young women. Systematic investigation of exogenous hormones as a potential preventive factor in psychiatric epidemiology is warranted.

	Propensity Score ^b	95% CI
11	-1.04*	-1.73, -0.35
↓	0.68*	0.49, 0.94
↓	0.37*	0.14, 0.95

	the past year								
Highly effective	831	3.59	1.71	0.65, 4.50	1.30	0.45, 3.91	1.32	0.48, 3.58	
Effective (hormonal)	2,393	0.67	0.31*	0.12, 0.82	0.38*	0.15, 0.97	0.37*	0.14, 0.95	
Less effective	1,913	2.49	1.17	0.53, 2.59	1.18	0.55, 2.55	1.20	0.54, 2.68	
Least effective or none used	1,310	3.11	1	Referent	1	Referent	1	Referent	

NO EVIDENCIA CIENTÍFICA
QUE PERMITA ESTABLECER
UNA RELACIÓN ENTRE
ANTICOCEPCIÓN
HORMONAL Y DEPRESIÓN

Anticonceptivos y depresión



Gingnell M et al. Oral contraceptive use changes brain activity and mood in women with previous negative affect on the pill--a double-blinded, placebo-controlled randomized trial of a levonorgestrel-containing combined oral contraceptive. *Psychoneuroendocrinology*. 2013 Jul;38(7):1133-44

Anticonceptivos y depresión

**PORQUÉ
A MÍ?**



- Vulnerabilidad biológica:
 - Fluctuaciones PG
 - Polimorfismos receptor 5-HT
 - Sensibilidad metabolitos PG
- Vulnerabilidad psicosocial:
 - Ambivalencia respecto a los AHC
 - Eventos estresantes
 - Situaciones específicas
- Preexistencia subclínica de trastornos afectivos:
 - PMS, PMDD
 - Depresión
 - Otros trastornos afectivos

Factores de riesgo

	Risk for mood worsening while on OC		
	n (%)	OR	95% CI
<u>History of major depression prior to OC start</u>	18 (25,4)	2,0	1,1 – 3,8
Early onset PMS	35 (17,5)	1,1	0,7 – 1,8
Early onset dysmenorrhea	39 (16,1)	0,9	0,5 – 1,4
Early onset of heavy bleeding	24 (13,6)	0,7	0,4 – 1,2
Obesity	7 (13)	0,8	0,3 – 2,0

Antecedente depresión mayor

Joffe H et al. Impact of oral contraceptive pill use on premenstrual mood: predictors of improvement and deterioration. Am J Obstet Gynecol. 2003 Dec;189(6):1523-30.

Factores de riesgo

Table 4. Characteristics of women who experienced mood side effects from hormonal contraceptives (n = 978)

	Any mood side effects n = 489	No mood side effects n = 489	P
Age*†	28 ± 6.8	29 ± 7.6	0.01
Years education*‡	15 ± 2.5	15 ± 2.8	0.70
Married, n (%)§	105 (39)	164 (61)	< 0.001
Any births, n (%)§¶	154 (43)	207 (57)	< 0.001
Recruited in, n (%)§			0.001
Primary care	87 (44)	111 (56)	
Abortion clinic	268 (48)	291 (52)	
IUD clinic	134 (61)	87 (39)	
Ethnicity, n (%)§#			
White/Caucasian	331 (53)	293 (47)	< 0.001
East Asian	67 (36)	118 (64)	
South Asian	45 (59)	31 (41)	
Other	47 (51)	45 (49)	

Antecedente depresión mayor, joven, soltera, nulípara, raza caucásica

Factores de riesgo

Table 3 The results obtained from logistic regression for reporting mood changes

	OR* (95% CI)	P	OR** (95% CI)	P
Age	0.99 (0.956-1.028)	0.650	1.00 (0.96-1.04)	0.894
Self-efficacy	0.86 (0.804-0.934)	0.001	0.87 (0.80-0.94)	0.001
Duration of OCP use	0.99 (0.989-1002)	0.179	0.99 (0.98-1.00)	0.357
Education				
Illiterate/primary	1.0 (ref.)		1.0 (ref.)	
Secondary	1.18 (0.754-1.846)	0.469	1.11 (0.681-1.81)	0.673
Higher	1.83 (0.837-3.873)	0.110	2.06 (0.881-4.81)	0.096
Received information on OCP side-effects				
Yes	1.0 (ref.)		1.0 (ref.)	
No	2.08 (1.387-3.135)	0.001	1.80(1.15-2.80)	0.009
Ethnicity				
Arab	1.0 (ref.)		1.0 (ref.)	
Lor	1.20 (0.758-1.909)	0.433	0.96 (0.59-1.58)	0.896
Fars	2.11 (0.967-4.630)	0.061	1.76 (0.75-4.12)	0.189
Place of living				
Rural	1.0 (ref.)		1.0 (ref.)	
Urban	4.98 (1.924-10.021)	0.001	2.57 (1.06-6.20)	0.035

Antecedente depresión mayor, joven, soltera, nulípara, raza caucásica, vivir en medio urbano, no información reacciones adversas, mala cumplidora

Recomendaciones guía OMS

	COC//P/CVR	CIC	POP	DMPA/NET-EN	LNG/ETG/ IMPLANTS	CU-IUD	LNG-IUD
DEPRESSIVE DISORDERS							
DEPRESSIVE DISORDERS	1 ^a	1 ^a	1 ^a	1 ^a	1 ^a	1 ^a	1 ^a

a Please consult the tables in the text for a clarification to this classification.

Clarification: The classification is based on data for women with selected depressive disorders. No data on bipolar disorder or postpartum depression were available. There is a potential for drug interactions between certain antidepressant medications and hormonal contraceptives.

Evidence: COC use did not increase depressive symptoms in women with depression compared to baseline or to non-users with depression.

Recomendaciones guía UKMEC

UKMEC SUMMARY TABLE HORMONAL AND INTRAUTERINE CONTRACEPTION

CONDITION

Cu-IUD

LNG-IUS

IMP

DMPA

POP

CHC

I = Initiation, C = Continuation

DEPRESSIVE DISORDERS

Depressive disorders

1

1

1

1

1

1

Examples:

Antiepileptics	carbamazepine, eslicarbazepine, oxcarbazepine, phenobarbital, rufinamide, topiramate
Antibiotics	rifabutin, rifampicin
Antiretrovirals	ritonavir, ritonavir-boosted protease inhibitors, efavirenz, nevirapine <i>Always use the HIV Drug Interaction Checker (www.hiv-drug-interactions.org) to identify potential interactions</i>
Antidepressants	St John's wort
Others	modafinil, bosentan, aprepitant



Interacción farmacológica



ELSEVIER



CrossMark

Contraception 94 (2016) 650–667

Contraception

CDC/MEC reviews

Drug interactions between hormonal contraceptives and psychotropic drugs: a systematic review^{☆,☆☆,★}

Erin N. Berry-Bibee^{a,*}, Myong-Jin Kim^b, Katharine B. Simmons^a, Naomi K. Tepper^a,
Halley E.M. Riley^a, H. Pamela Pagano^a, Kathryn M. Curtis^a

- Chen G et al. Pharmacokinetic drug interactions involving vortioxetine (LuAA21004), a multimodal antidepressant. Clin Drug Investig 2013;33:727–36.2.H.
- Palovaara S et al. Inhibition of cytochrome P450 2B6 activity by hormone replacement therapy and oral contraceptive as measured by bupropion hydroxylation. Clin Pharmacol Ther 2003;74:326–33.
- Muirhead GJ et al. Ziprasidone and the pharmacokinetics of a combined oral contraceptive. Clin Pharmacol 2000;49(Suppl 1):49S–56S.
- Chiu YY et al. Lurasidone drug–drug interaction studies: a comprehensive review. Drug Metabol Drug Interact 2014;29:191–202.

Conclusion
interactions
psychotropi

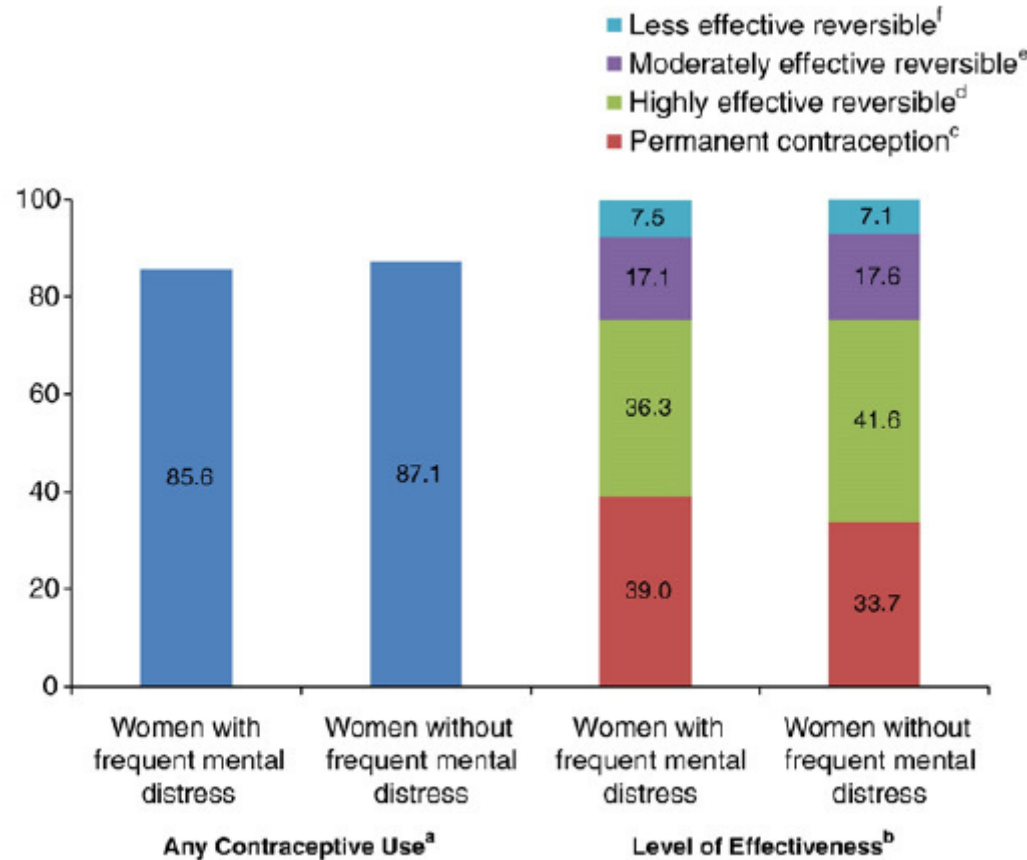
ly significant
oth HCs and

Factores de riesgo

	Chans for mood improvement during OC use		
	n (%)	OR	95% CI
Major depression prior to OC start	10 (14,1)	0,7	0,3 – 1,6
Early onset PMS	46 (23,0)	3,1	1,9 – 5,2
Early onset dysmenorrhea	47 (19,4)	2,3	1,4 – 3,9
Early onset of heavy bleeding	28 (15,9)	1,0	0,6 – 1,8
Obesity	10 (21,7)	1,9	0,8 – 4,2

Joffe H et al. Impact of oral contraceptive pill use on premenstrual mood: predictors of improvement and deterioration. Am J Obstet Gynecol. 2003 Dec;189(6):1523-30.

Métodos en mujeres deprimidas

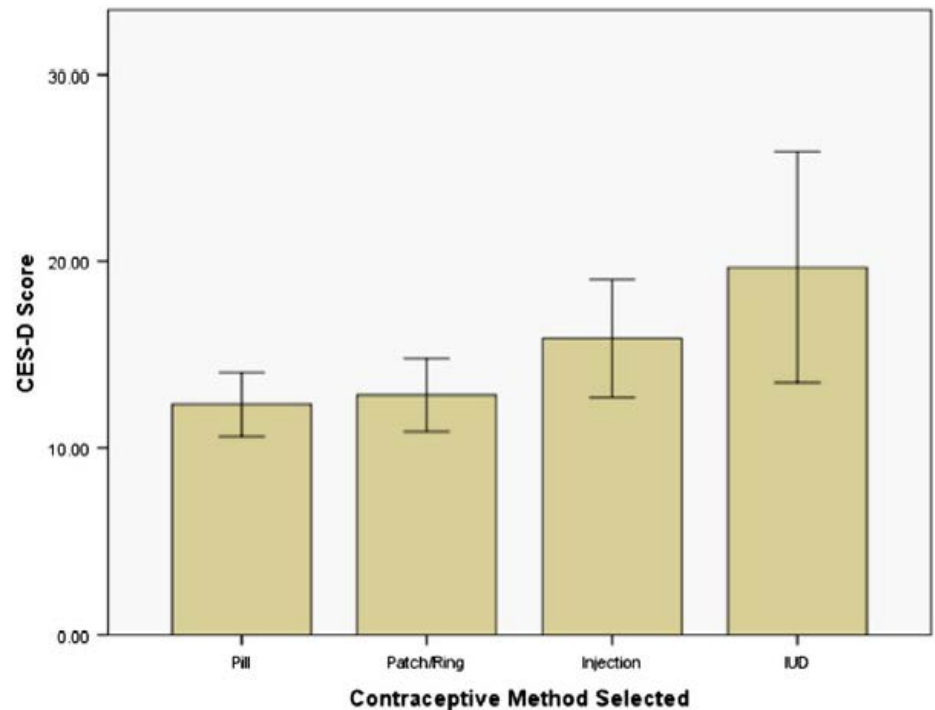
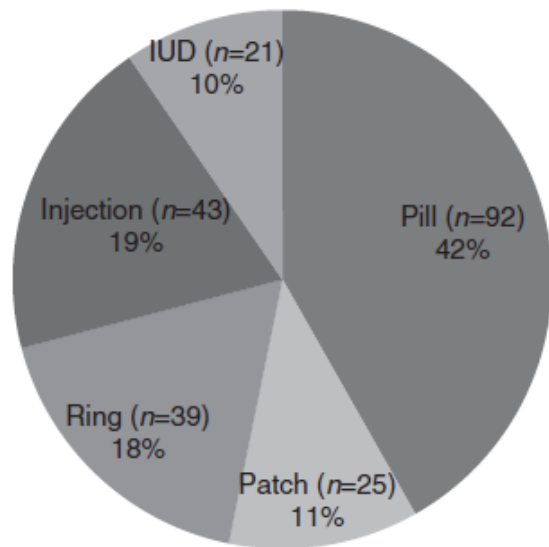


^aAmong 53,255 women ($p=.07$).

^bAmong 46,686 women reporting contraceptive use ($p<.0001$).

Métodos en mujeres deprimidas

Contraceptives selected by 220 inner-city, ethnic minority adolescents (ages 15-19)



Francis J et al. An exploratory analysis of contraceptive method choice and symptoms of depression in adolescent females initiating prescription contraception. *Contraception* 91 (2015) 336–343

Métodos en mujeres deprimidas

Associations between baseline depression and stress symptoms and weekly consistency of contraceptive use, stratified by contraceptive method

Weeks of contraceptive method use (by most effective method) (<i>n</i> = 7999 weeks, 689 women)	The odds of using each contraceptive method consistently each week among women with mental health symptoms	
	OR (95% CI)	
	Depression symptoms	Stress symptoms
Non-coital methods (<i>n</i> = 4304)	0.58 (0.30–1.15)	0.34 (0.17–0.65)
Long-acting methods (Intrauterine device, injectable or implant) (<i>n</i> =571)	0.72 (0.19–2.73)	0.50 (0.14–1.83)
Oral contraceptives (<i>n</i> =3537)	0.57 (0.25–1.30)	0.27 (0.12–0.58)
Patch or Ring (<i>n</i> =195)	1.10 (0.75–16.71)	0.32 (0.02–4.84)
Coital methods (<i>n</i> =3695)	0.69 (0.38–1.25)	0.32 (0.18–0.57)
Condoms (<i>n</i> = 2128)	0.69 (0.39–1.21)	0.40 (0.23–0.69)
*Other coital methods (<i>n</i> = 106)	0.06 (0.01–1.05)	0.12 (0.01–1.48)
Withdrawal (<i>n</i> = 1366)	0.29 (0.65–1.28)	0.12 (0.03–0.50)

TAKE HOME MESSAGE

- 4-10% usuarias AH pueden tener alteración del estado de ánimo.
- Alteración del estado de ánimo \neq depresión.
- No relación causal bien establecida entre AH y depresión.
- Falta de ensayos clínicos, doble ciego con grupo control bien diseñados.
- Los estudios se deberían centrar en el impacto en la calidad de vida.
- No contraindicación de ningún método anticonceptivo entre las mujeres con depresión.

TAKE HOME MESSAGE

Neurological
Action of Neuronal
Patterns

Psychological
Thoughts, Affects,
Behavior

Brain/Mind

Hormonal
Action of Hormones
on Brain Receptors

Social
Life Condition
Social Schemate
Social Systems

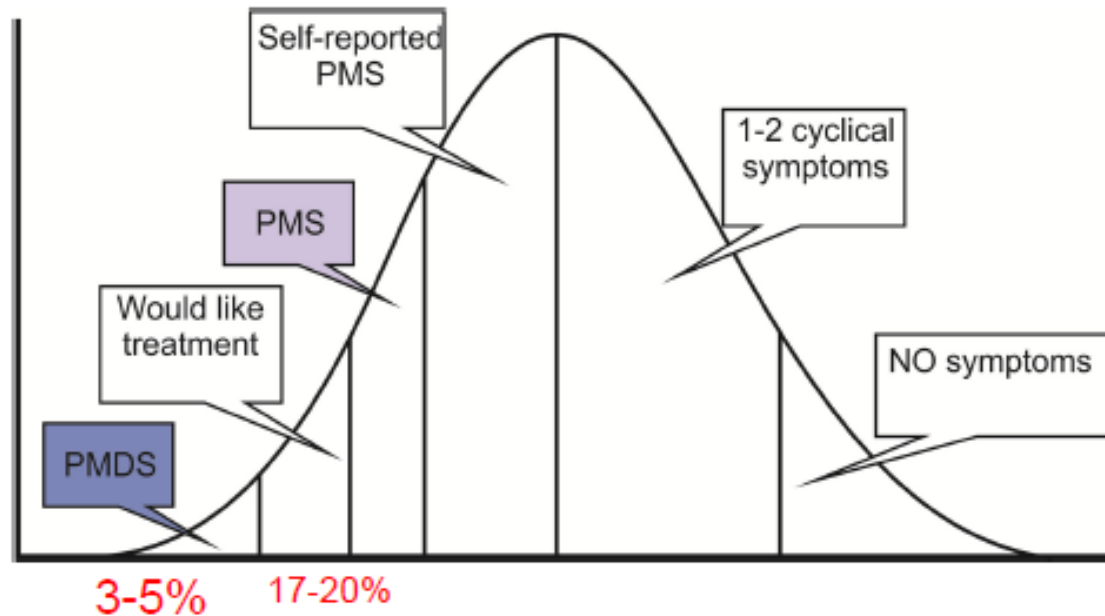
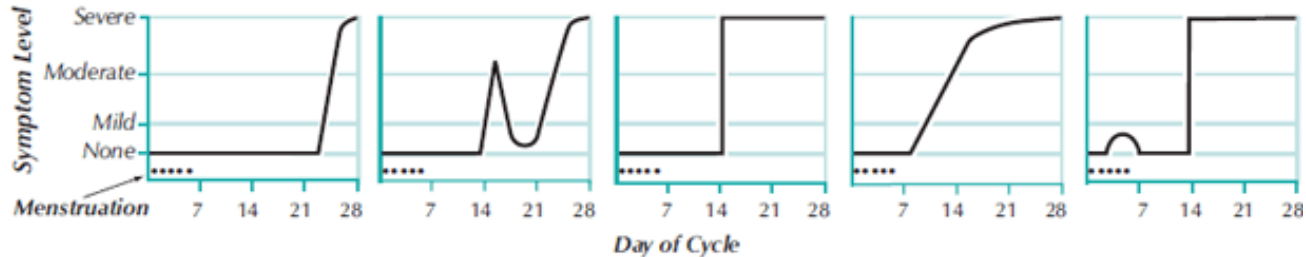
Gracia

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Factores de riesgo

Patterns of PMS Symptoms

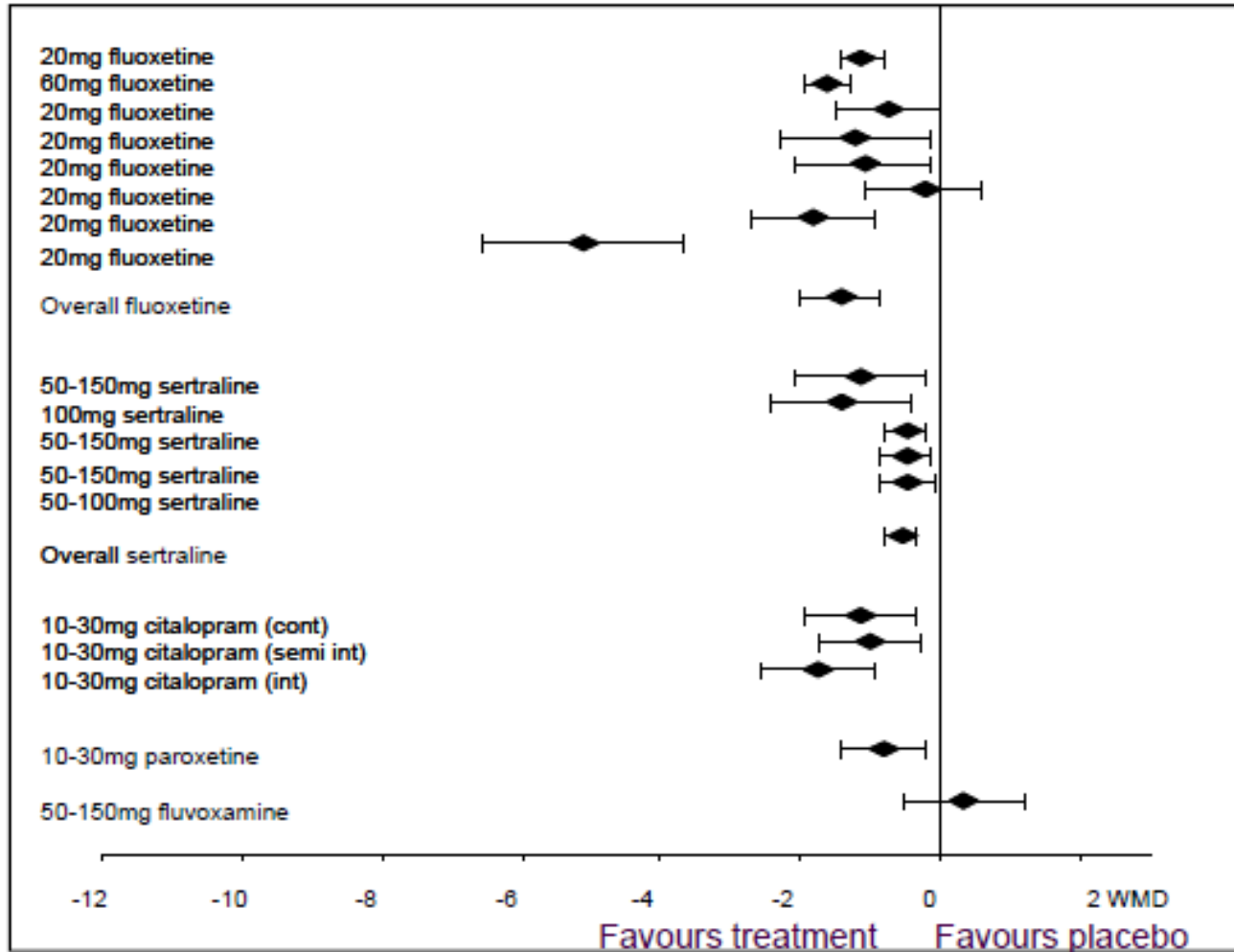


Johnson SR. syndrome, premenstrual dysphoric disorder, and beyond: a clinical primer for practitioners. *Premenstrual Obstet Gynecol.* 2004 Oct;104(4):845-59 <https://www.womensinternational.com/connections/pms/>

Factores de riesgo

Authors	Design	Intervention	n	duration	outcome
Freeman 2001	RCT	Yasmin vs. placebo	82	3 cycles	No difference in mood symptoms
Yonkers 2005	RCT	YAZ vs. placebo	450	3 cycles	YAZ superior
Pearlstein 2005	RCT Cross-over	YAZ vs. placebo	64	3 + 3 cycles	YAZ superior
Halbreich 2012	RCT	Continuous LNG90 +EE vs. placebo	386	4 cycles	Superior in 2/4 outcomes
Reviewed by Freeman 2013	RCT	Continuous LNG90 +EE vs. placebo	104	4 cycles	No difference

Factores de riesgo



Dimmock PW et al. Efficacy of selective serotonin-reuptake inhibitors in premenstrual syndrome: a systematic review. *Lancet*. 2000 Sep 30;356(9236):1131-6.