PREVALENCIA DE DEPRESIÓN Y FACTORES ASOCIADOS EN HOMBRES

Constanza Londoño Pérez[1*], Manuel González Rodríguez[2]
[1] Universidad Católica de Colombia, [2] Universidad de la Laguna–España

Resumen

El objetivo del presente estudio fue evaluar la prevalencia de depresión, detectar el riesgo suicida e identificar los factores sociodemográficos y personales asociados a este trastorno. La muestra no aleatorizada estuvo conformada por 1525 hombres colombianos con edades entre 18 y 83 años procedentes de 22 departamentos y de distintos niveles educativos. Para evaluar la depresión se usó el Cuestionario de Depresión para Hombres (Álvarez y Londoño, 2012); para evaluar la comorbilidad con ansiedad se usó la Escala de Ansiedad HADS (Zigmond y Snaith, 1983) y el IMAFE (Lara, 1991); y para recolectar información acerca de los factores personales y sociodemográficos se usó una ficha de registro. Se analizaron los datos para calcular la prevalencia de corte, el riesgo suicida, la comorbilidad a través del uso del paquete estadístico SPSS. Se concluye que la prevalencia real reportada y el riesgo suicida en la población estudiada son más altos que los detectados usando un instrumento no sensible al género.
Palabras clave: Depresión, hombres, riesgo suicida, prevalencia.

PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS IN MEN

Abstract

This epidemiologic study aimed to evaluate the prevalence of depression, the suicide risk and the demographic and personal factors associated with depression severity in men. The non-randomized sample of participants was formed by 1525 Colombian men aged 18 to 83 years old, from 22 departments and different educational levels. The instruments used to evaluate the above factors were the Men's Depression Questionnaire (Alvarez and Londoño, 2012), the Anxiety Scale HADS (Zigmond y Snaith, 1983) and the IMAFE (Lara 1991), and in order to collect data about personal and socio-demographic factors, a registration card was used. Data were analyzed to calculate the prevalence, suicide risk and comorbidity with anxiety through the use of SPSS. It was concluded that the prevalence of depression and suicide risk in the population object of study is higher than the one identified in previous studies when a non- gender sensitive questionnaire was used.
Keys words: Depression, men, suicide risk, prevalence.

PREVALÊNCIA DE DEPRESSÁO E FATORES ASSOCIADOS EM HOMENS

Resumo

O objetivo deste estudo foi avaliar a prevalência de depressão, detectar o risco suicida e identificar os fatores sociodemográficos e pessoais associados com esse transtorno. A amostra não aleatorizada foi conformada por 1525 homens colombianos com idade entre 18 e 83 anos, procedentes de 22 estados e de diferentes níveis de escolaridade. Para avaliar a depressão, foi utilizado o Teste de Depressão para Homens (Álvarez e Londoño, 2012); para avaliar a comorbilidade com ansiedade, usou-se a Escala Hospitalar de Ansiedade e Depressão (Hads – Zigmond e Snaith, 1983) e o Inventário de Masculinidade e Feminilidade (Imafe – Lara, 1991); para coletar informação sobre os fatores pessoais e sociodemográficos, empregou-se um formulário de registro. Analisaram-se os dados para calcular a prevalência de corte, o risco suicida, a comorbilidade por meio do uso do SPSS. Conclui-se que a prevalência real relatada e o risco de suicídio na população estudada são mais altos do que os detectados usando um instrumento não sensível ao gênero.
Palavras-chave: depressão, homens, risco de suicídio, prevalência.

---

*　Avenida caracas # 46-22 Piso 1 Postgrados Psicología. +051 3277300 ext. 5071, clondono@ucatolica.edu.co

When the term depression is used, it refers to a wide spectrum of disorders that share certain characteristics which vary in their causes, intensity, symptoms, chronicity and course, and even in epidemiological behavior. That is to say, it can be approached from the perspective of the symptoms as well as from the syndromes that include the above symptoms plus other concomitant symptoms, with a certain severity and chronicity; or from the nosological classification as a mental disorder that is expressed through a group of characteristic symptoms that define the existence of the disorder (Caballo, 2006).

The different forms of depression have been encompassed in the DSM-V (American Psychological Association, APA, 2013) and the International Statistical Classification System of Diseases and Related Health Problems [ICD-10 (Pan American Health Organization (PAHO), 2010)] in a group called mood disorders, characterized because the person has been in low spirits and shown a group of emotional, cognitive, behavioral and physiological disturbances related to the main diagnostic condition (Vásquez, Muñoz and Becoña, 2000). There is even talk of a certain lack of positive emotional states in people, which is expressed by the loss of cognitive and behavioral interest in activities of daily living (Glotib & Hammen, 2012).

In these mood disorders, abnormal fluctuations of mood occur and their intensity, duration, association to stimuli and impact on the development of the normal life of the person are considerable (Friedman and Thase 1995). For this reason we talk about the existence of an abnormal melancholic state given that the mood is not only caused by events that can be considered provocative and because its duration surpasses the normal reaction times for sadness in people. These moods have also been associated with emotional, cognitive, physical and behavioral symptoms.

Epidemiology of depression

In the world, about 350 million people suffer from depression and this figure is expected to increase; it is envisaged that by 2030 depression will be the leading cause of global morbidity [World Health Organization (WHO), 2012], and that its negative impact in terms of reduced productivity, and increased accidents and health costs will also be exacerbated (Córdoba, Fuentes, & Ruiz, 2011).

According to the World Federation for Mental Health (WFMH), depression ranks third among disorders responsible for the greatest overall burden on mental health in the world, and Colombia is in fifth place among the countries with the highest recorded levels of mood disorder; however, only countries like Mexico and Brazil have made periodic census studies in people over 18 years (Gómez-Restrepo et al., 2004). In Mexico, the National Comorbidity Interview was created with 3 screening questions on mental health in a stratified random sample of 5782 people aged between 18 to 65; it was found that the most vulnerable section of the population were between 45 and 54, and that the prevalence of depression in the last year was 8% and the rate throughout life was 9.8% (Rafful, Medina-Mora, Borges, Benjet, & Orozco, 2012).

In Colombia, in 2003, the National Mental Health Survey was carried out with 4544 adults aged between 18 to 65 years old in 60 municipalities around the country. 14.9% of respondents reported having had symptoms of depression at some point in their life, with irregular distribution in the country: Bogota recorded 21.1% of the cases, while 15.5% were recorded in the central region and 8.1% in the eastern region (Ministry of Social Protection, Colombia [MPSC], 2003). In the same study, conducted in 2015 by the same entity, 5.7% of men and 7.4% of women surveyed had suicidal tendencies, although specific data on the different disorders were not published.

On average, depressed people will have five separate events of depression throughout their life and at least 6% of cases will lead to a suicide attempt (Government of Canary Islands, 2010). At the same time, 15% of patients meet criteria for chronicity given that they report having continuous depression for more than two years, associated with reduced social adjustment, high functional impairment and increased use of health services, and only 1% of the population report a depressive episode that lasted for more than 5 years (Conradi, Ormel, & de Jonge, 2011).

In the 2003 Mental Health Study, men reported higher overall prevalence of all disorders; however, despite the social dynamic, there is not a national statistics system that allows for true monitoring of the scope of mental health problems in this country.

In Colombia and in the rest of the world, most reports of depression come from women who go to health centers seeking professional help, and these centers in turn report statistics on their reasons for consultation to government entities, so that statistics regarding the prevalence of depression certainly report that is a predominantly female problem. In previous studies, it has been shown that depressed women are more likely than depressed men to use health services or seek social support; this is because the male population has difficulty recognizing the symptoms of depression and if they do perceive them, they prefer to avoid these by using drugs or extreme escape mechanisms such as suicide. It is worth noting that men commit suicide more than women and that in at least half of the cases they do so because of depression (Haeffel et al., 2007; National Institute of Legal

and Forensic Medicine, 2013; Merikangas et al., 2011; Mittendorfer-Rutz, 2006; Troister and Holden, 2010).

The above mentioned epidemiological studies have the same limitations in the evaluation as have occurred throughout the history of studies on depression. Accurate diagnosis made through instruments is certainly a challenge because there are many obstacles to overcome in order to achieve accurate measurements, including the overlap of symptoms, the non-identification of clearly differential core symptoms which causes high convergence between the scales used to measure two diagnoses that are considered different, such as depression and anxiety. Many of these instruments were designed long ago and some have not been renovated or updated and they also focus their attention on cognitive symptoms, minimizing the diagnostic value of behavioral, emotional and somatic symptoms: it is important to keep questionnaires brief to reduce costs, but this affects the discriminating capacity of instruments as it increases the acceptable error rate, and these diagnostic measures are used for screenings and early detection.

The difficulty in early detection and diagnosis of depression in men is even more critical because of the inefficiency of case detection systems, the failure to include male samples in such studies and the use of instruments with bias, all of which hinder the development of cost-effective treatments targeted specifically to men. Furthermore, health systems provide little time for consultation, thus reducing the possibility that health professionals have of properly diagnosing cases of depression, plus the fact that general practitioners implicitly avoid diagnosing mental illness because implementing the care protocols defined for these disorders increases the financial commitment of the entities providing health services.

Associated factors

The study of the origins of depression has revealed that it has multiple causes, and that these involve biological, psychological, social and environmental factors. Thus it can be said that both the intermediary phenotype (genetic hyper-reactivity to stress) and the early life experiences of the individual act as predisposing factors for depression, given that they modulate a rather acute response to stress triggered by stressful events, which in turn is considered a precursor for depression (Caspi, Hariri, Holmes, Uher, & Moffitt, 2010; Karg, Burmesister, Shedden, & Sen, 2011).

Likewise, the individual's immediate social environment acts as a facilitator for the emergence and worsening of depression, rather than a trigger. That is to say that adverse social events, considered part of the social environment, facilitate the emergence of a response that is disproportio-

nate to the magnitude of the event when the event itself only has a relatively low potential level of harm, and which depends on socio-economic conditions, the degree of social support, and the gender roles performed, among others (Mejia Castillo, 2011; Sandin, 2003).

Various studies have shown that people living with economic constraints and who have reduced access to education, housing, work, health and recreation (Moore and Hadjiyannakis, 2002; Pan American Health Organization (PAHO), 2012) are more likely to report mental health problems, as it seems that poverty acts as a chronic stressor, affecting their ability to cope with stress. The level of social support these people receive is also diminished due to the need to meet the survival demands of each family group member almost individually (Almeida et al., 2012; Juarez & Guerra, 2011; Lund et al., 2010; Huurre, Eerola, Rahkonen, & Does, 2006; Palomar & Cienfuegos, 2007).

It is well known that family history of mental disorders increases the risk of depression (Birmaher and Heydl, 2001), either due to the expression of certain hereditary factors or the fact that people with depression report more parental problems, offer poor support to family members, and fail in their family role of offering social support (Heponiemi et al., 2006; Sander and MacCarthy, 2005; Vallejo Casarín, Osorno Murguia, & Mazadiego Infante, 2008).

Different studies show that a significant number of stressful experiences such as health problems, abuse, school violence and family dysfunction are associated with the onset of depression (Dokin et al., 2013; Drydakis, 2013, Fellinger, Holzinger, Sattel, Laucht, & Goldberg, 2009; Ibarra-Alcantar, Ortiz-Guzman, Graciano-Morales, & Jiménez-Genchi, 2010; Pawlby, Hay, Sharp, Waters, & O`Keane, 2009). This can be confirmed when one considers that biomarkers such as cortisol have been found in the blood of a large number of patients with some form of depression (Adam et al., 2010; Ellenbogen, Hodgins, Linnen, & Ostiguy, 2011; Vrshek-Schallhorn et al., 2012). This means that exposure to acute or chronic stress events can be associated with an increased vulnerability to mental health which in turn exacerbates chronic health conditions (Almeida et al., 2011; National Institute of Mental Health, 2013) and this strengthens the same depression.

Despite advances in the understanding of the various factors that enhance the risk of suffering a mood disorder, it is difficult to estimate and predict the real risk for an individual (Kutcher et al., 2004) and even more so in a specific population group. There are many cultural, social, structural and psychological factors that have been associated with the onset, course and prospects for recovery of the various mood disorders, and these factors frequently interact in a

complex environment such as today's society, especially in a country like Colombia.

Epidemiological studies generally use tools such as the BDI, the Hamilton scale and other tools designed using predominantly female samples. An example of this is the National Study of Mental Health in Colombia, which used the First Beck Depression Inventory (BDI I), and periodic studies by the WHO, The World Mental Health Survey and other international studies (MPSC, 2003; WFMH, 2012; WHO, 2011; PAHO, 2005), whose sensitivity to male patterns of depression is reduced, especially in the case of both versions of the BDI. Chang et al. (2008) had already found serious differences in epidemiological statistics in this population, depending on the scales used. It is important to clarify that we do not expect that adjusting these tools will radically change the epidemiological profile, but they would be expected to become more sensitive and discriminating to the gender variable and the specific ways the mood disorder is expressed depending on the degree of masculinity / femininity expressed by each person, so census studies could be conducted with predominantly male samples, thereby generating greater confidence in the epidemiological figures available. One wonders then what the prevalence of male depression is and what the associated psychosocial and environmental factors are.

METHOD

Type of study

This is an epidemiological study conducted on the Colombian male population.

Participants

The sample of voluntary participants is stratified by age to achieve representation of youth, adults and seniors, and by place of origin in order to ensure the equal participation of as many departments of Colombia as possible. The sample, calculated using the software GPower, was made up of 2200 men who were approached in groups of 15-35 people in businesses, educational institutions (middle, vocational and higher), and in governmental and non-governmental entities. They were contacted by letters of request as they had been previously identified as men who met the criteria for age and origin.

From that initial sample, 1525 men agreed to participate; of which 115 cases were eliminated because they didn't sign the informed consent, or due to bias in or omission of answers.

Among the inclusion criteria for entering the study were being a Colombian man, residing in national territory, being over 18 and able to read and write, in addition to voluntarily agreeing to participate in the survey.

The ages were between 18 and 83 years old, with a mean age of 26.59 (SD = 9.45); they were mainly young people (40.2% were 22-35 years old) and older adolescents (40.2% were 18-21 years old); predominantly living with their family (91.1%); with different educational levels, including university (40%), high school (34.2%) and technical (14.4%); of a below-average socio-economic level (27.5% and 46.9% respectively were in social strata 2 and 3[1]). They were from about 95 municipalities in 22 departments located in the most densely populated areas of the country (See Table 1).

Instruments

Socio-demographic Information Sheet:

This is a registration form that collects information such as gender, age, educational level, origin, occupation and level of satisfaction in relation to their job, social stratum, family structure and *functioning* (APGAR–Adaptability Partnership Growth Affection Resolve, Smilkstein, 1978), history and family psychopathological background.

The Family APGAR Questionnaire

(Adaptability Partnership Growth Affection Resolve) designed by Smilkstein (1978), which assesses the level of family functioning, and which was validated for the Colombian population by Forero, Avendaño, Duarte and Campo-Arias (2006). The scale consists of two factors, family dysfunction and family support. The overall internal consistency is 0.79, but the consistency for each dimension has not been calculated.

Questionnaire for Depression in Men. (QDM)

This questionnaire was designed by Alvarez and Londoño (2011) and measures five dimensions including negative self-image and suicidal ideation. It has a high level of reliability of 0.95 and 0.96 in the indices calculated from classical test theory and from item response theory respectively, and it has an index of adequate separation of 4.19, which indicates a proper fit.

Scale of Hospital Anxiety-Depression (SHAD)

Designed by Zigmond & Snaith (1983), this is used in screening for depression and anxiety disorders, providing a quick score for both psychological problems. Validated for the Colombian population by Rico, Restrepo and Molina (2005). The Anxiety Scale consists of 7 items with 4 response options ranging from 0 to 3 on the Likert scale. The SHAD has an adequate level of reliability reflected in its Cronbach's alpha score of 0.85 for the entire scale, although the figure is lower, but still adequate, for each specific scale: 0.76 for the anxiety scale and 0.77 for the depression scale.

---

[1]　In Colombia, residential settings are assigned a social stratum ranging from 1 to 6, where 1 is the poorest and 6 the richest. This is used to calculate the rates paid for household bills, as well as in national statistics.

Table 1.
Description of socio-demographic conditions of the 1413 males participating in the study.

Variable	f	%	Variable	f	%
Level of Education			Origin		
Primary	45	3.2	Cundinamarca	308	21.8
High School	480	34.2	Santander	119	8.4
Technical	203	14.4	Tolima	95	3.7
University	570	40.3	Valle	89	6.3
Post Graduate	115	8.1	Boyacá	154	10.9
Social Stratum			Quindío	22	1.6
1	99	7	Arauca	1	0.1
2	389	27.5	Antioquia	100	7.1
3	663	46.9	Cauca	5	0.3
4	217	15.4	Nariño	23	1.6
5	37	2.6	Huila	71	5.0
6	8	0.6	Casanare	10	0.7
Occupation			Magdalena	81	5.7
Student	340	24.1	Meta	12	0.8
Worker	466	33.0	Bolivar	21	1.5
Student/Worker	304	21.5	Cesar	146	10.3
Other	183	13.0	Atlántico	20	1.4
Unemployed	120	8.4	Guajira	51	3.6
Living with					
Family	1285	91.1	Caldas	57	4.0
Friends	12	0.8	San Andrés	1	0.1
Others	102	7.2	Cordoba	26	1.8
Alone	12	0.8			
Age groups					

Stressful Life Events (SLE) Scale from the WHO

Adapted by Oliva et al. (2008) and validated for the Colombian population by Gomez et al. (2012), it is used to evaluate the existence of environmental conditions that may provoke stress and the intensity of its effects. It consists of 23 items that briefly describe potentially stressful events for people and has achieved a reliability of 0.70.

Femininity Masculinity Scale (FEMAS)

Developed in Colombia by Lara (1991), and revalidated by Martinez Guerrero and Rey (2012), this scale analyzes the social role assumed by people. It consists of 60 items which include descriptive adjectives of roles, and which are subdivided into four factors: masculinity, femininity, chauvinism and submission. The masculinity factor includes adjectives that describe positive traits considered to be characteristics of men; the femininity factor includes adjectives that describe positive traits considered feminine or to be characteristics of women; the chauvinism factor encompasses negative adjectives to describe male characteristics; and the submission factor includes adjectives describing negative traits of femininity, centered on sub-

mission. Response options range from 1-7 on a Likert scale, thereby offering varying degrees of frequency in which the person can express the trait defined in each adjective. The Cronbach's alpha values for the four scales were 0.78 for the masculinity factor, 0.88 for the femininity factor, 0.82 for the chauvinism factor and 0.79 for the submission factor.

Ways of Coping Questionnaire

Developed by Lazarus and Folkman (1985) and validated by Rueda and Vélez Botero (2010) for the Colombian population, this consists of 42 items that assess the predominant way of coping with stressful events. These ways are grouped into five factors, namely: focus on problem solving, avoidance, fantasy, self-blame and seeking social support. The response options are on a 4-point Likert scale. The questionnaire has a reliability of 0.70 for the overall scale, 0.88 for the problem solving scale, 0.75 for seeking social support, 0.74 for avoidance, 0.78 for self-blame and 0.85 for fantasy.

Procedure

First, there was a call for psychology students in their last semesters through the Psychology and Health section

of the ASCOFAPSI Network of Researchers. They undertook selection interviews, had a letter of recommendation from a researcher and signed a letter of commitment. Secondly, these assistants were trained and accompanied for the application. And thirdly, the instruments were applied in accordance with the guideline. To estimate prevalence in the sample, the Point Prevalence formula was used: Ct number of existing cases (prevalent) / Nt total number of individuals.

RESULTS

In this section, the results of the statistical analysis are presented as follows: firstly, the descriptive data that were obtained, and secondly, information concerning the prevalence of depression in the men surveyed, as well as the analysis of associated factors.

Of the men surveyed, 10.9% of the population had symptoms of depression at a subclinical level and 6.9% achieved scores that exceeded the clinical cut-off point (106 points), of which 6.1% reported a level of moderate severity and 0.8% reported *severe depression* during the previous month. By analyzing the different dimensions that make up the QDM, 7.1% presented a high level of *negative self-image*, 18.1% a moderate level and 74.6% a low level; 7.7% of the population had *suicidal ideation* and 12.2% had thoughts of death; 18.9% reported having high levels of *poor social image* and 51.9% showed a moderate level; 18.6% reported having high *negative affect* and 34.5% a moderate level. In the case of the *hopelessness* factor, 1.9% showed high hopelessness and 22.7% moderate; finally, 14.4% showed they had moderate level of *avoidance* and 4.2% had a high level (See Table 2).

Table 2.
Prevalence of depression in the study sample and its level of severity

Variable	f	%	Variable	f	%
Depression			F1: Negative Image		
Without Depression	1161	82.2	*Low*	1054	74.6
Clinical Depression	98	6.9	*Moderate*	256	18.1
Population			*High*	103	7.1
Without depression	1161	82.2	F2: Suicidal Ideation		
Slight Depression	154	10.9	*Absent*	1032	80.1
Depression	98	6.9	*Ideas of death*	173	12.2
Level of severity			*Suicidal ideation*	108	7.7
Moderate	88	6.1	F3: Poor social image		
Severe	10	0.8	*Low*	412	29.2
			Medium	734	51.9
			High	267	18.9
			F4: Negative affect		
			Low	662	46.9
			Medium	488	34.5
			High	253	18.6
			F5: Hopelessness		
			Low	1071	75.8
			Medium	315	22.3
			High	27	1.9
			F6: Avoidance		
			Low	1151	81.5
			Medium	203	14.4
			High	59	4.2

Among the evaluated cultural factors, it was found that nearly 100% of male respondents reported being heterosexual. In the same group of factors, the highest average in the test of masculinity / femininity was that of masculinity (4.14), followed by the chauvinist factor (3.86), and those of femininity (3.82) and submission (3.49); all of them had standard deviations of less than 0.85 which indicates low dispersion in the data. On environmental factors, it was shown that men had lived on average about 6 Stressful Life Events (SLE) in the last year (5.56), with a high average psychological impact (7.06). It was found that the five SLEs most reported by men were: significant personal achievement (38.6%), change in living conditions (32.9%), vacations (32.6%), Christmas (32.2%) and health change in a relative (31.2%) (See Table 3).

The five SLEs causing the greatest psychological impact on average on the men surveyed were *significant personal achievement* (M=7.93), *pregnancy of their partner* (M=7.55), *death of a close relative* (M=7.54), *Christmas* (M=7.47) and *vacations* (M=7.41); and the three with the lowest reported impact, without being regarded as low-impact, were: *perso-* *nal injury or illness* (M=6.44), *sexual problems* (M=6.62) and *change of leisure activities* (M = 6.78) (Table 3).

With regards to the psychological factors that were evaluated, it was found that the average score for *anxiety* was moderate (M = 6.38), and the mean level of *depression* was not clinical (M = 69.11). Regarding the factors included in the QDM, *negative self-image* was at the higher end of the low level (M = 6.22), the same as *suicidal ideation* (M = 5.70); *poor social image* (M = 9.88), *negative affect* (M = 27.76), *hopelessness* (M = 5.43) and *avoidance* (M = 14.12) were all at a mid-level. Considering *ways of coping*, the highest average corresponds to *problem solving* (M=2.42), followed by *seeking social support* (M = 2.26), *fantasy* (M = 2.17), *self-blame* (M=2.07) and ultimately, *avoidance* (M=1.98).

The men surveyed had moderate levels of *satisfaction* in all areas of their life, with the highest average related to *satisfaction with family* (M = 5.16) and *satisfaction with life in general* (M = 4.90); and the lowest in *satisfaction with current economic conditions* (M = 4.19) and in *free time* (M = 4.17) (See Table 3).

Table 3.
Descriptive data for the social, cultural, environmental and psychological factors evaluated in the sample

Variable		f	%	Variable		f	%
Family History				Sexuality			
Suicide		62	4.4	Heterosexual		1356	96
Drug use		133	9.4	Homosexual		39	2.7
Depression		173	12.2	Bisexual		17	1.2
Violent behavior		126	8.9	Other		1	0.1
Risky Behavior		121	8.6				

Variable	Min	Max	M	SD	Variable	Min	Max	M	SD
Anxiety	0	17	6.38	3.38	Way of coping				
Depression	0	160	69.11	18.99	Problem solving	1	4	2.42	0.49
Negative self-image	0	16	6.22	2.36	Social Support	1	4	2.26	0.55
Suicidal ideation	0	16	5.70	2.40	Avoidance	1	4	1.98	0.44
Poor social image	0	24	9.88	3.36	Self-blame	1	4	2.07	0.65
Negative affect	0	60	27.76	7.85	Fantasy	1	4	2.17	0.67
Hopelessness	0	12	5.43	1.77					
Avoidance	0	32	14.12	3.96	Masculinity/ Femininity				
					Masculinity	1	7	4.14	0.84
APGAR					Femininity	1	7	3.82	0.78
Dysfunction	0	8	1.12	1.30	Chauvinism	1	7	3.86	0.82
Support	0	5	2.02	0.99	Submission	1	7	3.49	0.80
SLE					Satisfaction				
Number of SLEs	0	22	5.56	5.02	Life in general	1	6	4.90	1.00
Impact	6	9	7.06	0.72	Work	1	6	4.46	1.15
					Family	1	6	5.16	0.96
Drug use	0	10	2.60	1.45	Relationship	1	6	4.58	1.24
					Economic conditions	1	6	4.19	1.16
					Friends	1	6	4.64	1.02
					Free time	1	6	4.17	1.32
					Studies	1	6	4.49	1.21
					Health	1	6	4.84	1.02

Among the SLEs, it was found that the five most frequently reported by men were: *significant personal achievement* (38.9%), *change in living conditions* (32.9%), *vacations* (32.6%), *Christmas* (32.2%) and *change in health of a family member* (31.2%); and the two least frequent were *legal problems* (9.5%) and *slight transgressions of the law* (8.3%). Meanwhile, the five that produced the greatest psychological impact on average were significant personal achievements (M = 7.9), pregnancy of the partner (M = 7.55), death of a close relative (M = 7.54), adding a new member to the family (M = 7.51) and Christmas (M = 7.47); and the two with the lowest impact were personal injury or illness (M = 6.44) and change in the number of family gatherings (M = 6.55) (See Table 4).

To determine the factors that may be considered as being associated with the emergence and worsening of symptoms, a structural equation model is identified, which will be discussed later.

Figure 1 shows the measurement model and the model resulting from factors associated with the severity of depression in men, in which variables such as SLE (Relative Weight of Variance Explained [RWVE] = 0.38), anxiety (RWVE = 0.37), ways of coping (RWVE = 0.38), family functioning (RWVE = 0.32) and gender role (RWVE = 0.16) together explain 66% of the variance in the severity of depression in men.

The most important relationship, as was expected after the analysis, was with *ways of coping* and within that category, *avoidance* has the highest weight of variance explained (RWVE = 0.21), followed by the negative contribution made by the *problem solving* style (RWVE = -0.11) and the positive contribution made by *self-blame* (RWVE = 0.10).

Table 4.
Impact of different Stress Life Events

Variables	f	%	Min	Max	M	SD
SLEs						
Impact of the SLE						
Death of a close relative	371	26.3	4	10	7.54	1.95
Personal injury or illness	317	22.4	4	10	6.44	1.81
Redundancy	149	10.5	4	10	6.88	1.98
Change of a relative´s health	441	31.2	4	10	7.02	1.80
Pregnancy	146	10.3	4	10	7.55	2.09
Sexual problems or difficulties	162	11.5	4	10	6.62	1.99
Arrival of new family member	216	15.3	4	10	7.51	2.09
Death of a close friend	180	12.7	4	10	7.25	1.96
Legal Problems	134	9.5	4	10	7.14	1.89
Significant Personal Achievement	549	38.9	4	10	7.93	1.77
Change in living conditions	465	32.9	4	10	7.24	1.83
Change of residence	299	21.2	4	10	7.00	2.00
Change of job/educational institution	272	19.2	4	10	7.12	1.88
Change of leisure activity	272	19.2	4	10	6.78	1.92
Change of religious activity	148	10.5	4	10	6.98	2.01
Change of social activity	307	21.7	4	10	6.88	1.89
Change of sleeping habits	404	28.6	4	10	7.14	2.08
Change of number of family gatherings	252	17.8	4	10	6.58	1.88
Change of eating habits	379	26.8	4	10	6.95	1.91
Vacations	461	32.6	4	10	7.41	1.95
Christmas	455	32.2	4	10	7.47	2.01
Slight transgressions of the law	117	8.3	4	10	6.89	1.7

Notes: Men (n=1413) f

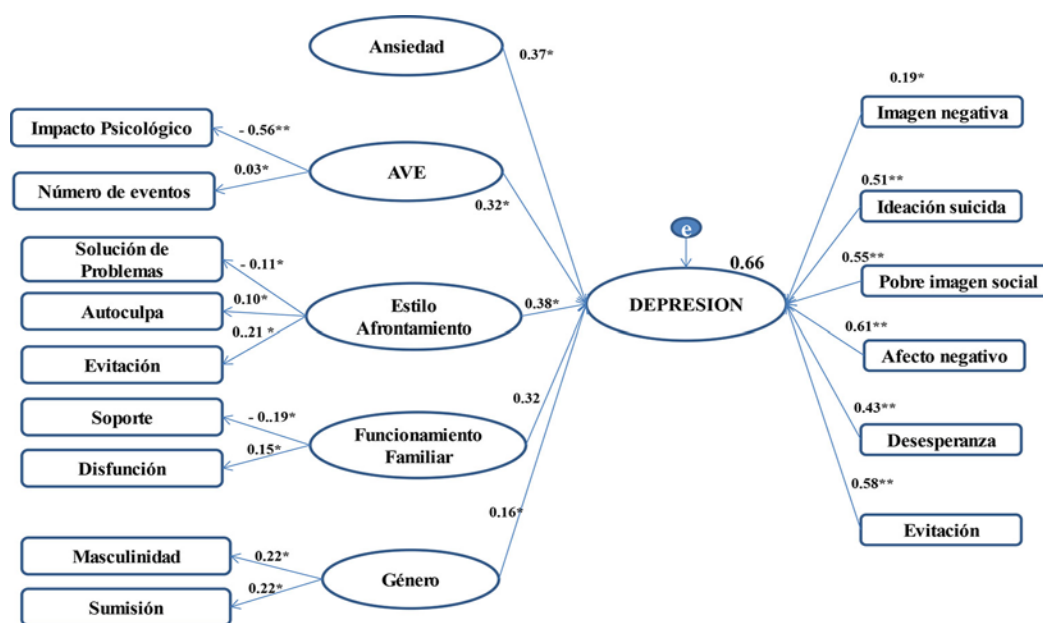<u>Figure 1</u>. Factors associated with the severity of depression in men represented in the Structural Equation Model.

Notes: * p≤.05. ** p≤.01

In second place are the (latent) variables of the stressful life events and family functioning models (both with RWVE = 0.32). In the former, it is shown that the psychological impact has a larger, negative weight when explaining the variance of the severity of depression (RWVE = -0.56) than the number of events reported by the person (RWVE = 0.03). With regards to family functioning, it was found that family dysfunction gave a positive relative weight of variance (RWVE = 0.15) and family support contributes negatively (RWVE = -0.19). Finally, it was found that gender role brought the lowest weight of variance explained (RWVE = 0.16) with masculinity and submission contributing to the same extent (RWVE = 0.22). Every relationship described met the minimum criteria to be significant at p ≤ .05 (See Figure 1).

When calculating indices corrected for sample size (see Table 5), it was found that they all denote that the model has an adequate goodness of fit index, because although the RSME is not less than 0.10, the NFI is greater than 0.80, the CFI is over 0.95 and the X^2 index as a goodness-of-fit index was not significant because the *p* value found was greater than 0.05, i.e., the model was chosen due to its parameters; and that this is recursive because it has no circular or reciprocal effects among its variables.

Table 5.
Goodness-of-fit indices for the structural equation model chosen to measure the severity of depression in men.

Goodness-of-fit indices		Result	Indicator
Square root of the mean square error	RSME	0.13	-
Normalized fit index	NFI	1.00	-
Comparative fit index	CFI	1.00	-
Chi squared	X2	0.0	p=0.097
Degrees of freedom	DF	2	-
Variance explained	R2	0.59	p=0.001

Notes: *p:* Level of significance

DISCUSSION

According to the data obtained, it can be said that there is a lack of epidemiological reporting of cases of depression in men in Colombia, probably due to the use of derivatives of the DSM and ICD system that do not accurately reflect the symptoms of male depression. Regarding the prevalence in the sample in the last month (August to November), 7.9% of male respondents suffered from depression, a proportion significantly above that reported in previous national studies (6% to 6.2%) (WFMH, 2012; Gómez-Restrepo, 2004; MCPS, 2003).

6.1% of men had moderate depression and 0.8% had severe depression (1 in 10), without being able to say whether it was an episode of major depression or a disorder, because in this study the existence of clinical depression in general was assumed as an overall concept and not as a specific identification of a mood disorder.

If prevalence figures are compared, there are two possible ways to explain the difference. Firstly, this could be due to an increase that has occurred in the years that have elapsed since the National Study of Mental Health in Colombia or the more recent studies; and secondly, that the instruments used so far for epidemiological follow-ups in the country are probably less sensitive to detect depression in men. As Chang et al. (2008) conclude, available epidemiological findings are variable and depend greatly on the instrument used, as different instruments focus on different aspects of depression and have different levels of sensitivity. And one cannot ignore the fact that several previous studies that measured using two instruments simultaneously have identified that the Zung Scale and both versions of the BDI are less sensitive to detect cases of depression in men (Alvarez and Londoño, 2012; Galicia, Sanchez and Robles, 2009).

7.7% of respondents had a high suicide risk associated with severe depression, and 12.2% reported thoughts of death or wanting to die, associated with moderate depression in most cases, but not exclusively, since the source of the death wish is unknown in about 4% of cases. The available national data on suicide risk show that more than 6% of the population is at risk (WFNS, 2012),but that is inconsistent with the results of this work, because in this case a significantly higher suicide risk of almost 20% was found. Additionally, it has been established with sufficient certainty that men have greater suicide risk, as most of the actual suicides in Colombia and the world are committed by men (WFNS, 2012; Haeffel et al., 2007; INMFL, 2013; Merikangas et al., 2011).

Although suicidal ideation and depression cannot be equated, as there are various psychological and physical disorders that can lead someone to consider suicide (severe mental illness, physical health conditions involving pain, economic problems and cultural reasons), it has been established that in at least half of the cases the suicide act is related to previous diagnoses of mood disorder, especially severe depression (Arsenault-Lapierre, Kim and Turecki, 2004) and that men are more at risk than women of actually committing the act of suicide (WHO, 2012).

Going back to the fact that men with moderate depression also addressed the desire to commit suicide, although thoughts of death or suicidal ideation do not always lead to suicide, it should be considered as an alarm signal because its emergence has been related by several authors to

the subsequent increase in the severity of symptoms and the consolidation of the ideas of suicide (Egan, Wade and Shafran, 2011; O'Connor et al., 2012; Rasmussen, Elliot and O'Connor, 2012). This is especially true if one considers that violent environments and inequality, which are conducive to reaffirming hopeless beliefs about life, are commonplace in Colombia.

Also, one 11% of the men in the study presented mild symptoms of depression, which indicates the existence of subclinical conditions that deserve attention and the development of preventive actions aimed at the male population, in order to raise awareness of the symptoms, the importance of the problem and its possible impact. We have already shown that specific preventive actions have a greater impact and scope than those which are aimed at the whole population (Sandler and Chassin, 2002).

Also, one cannot forget that 10.9% of respondents had a subclinical level of depression, and that this condition may be exacerbated with relative ease in a country like Colombia, where there is job insecurity, a poor and inefficient health system, combined with the long-standing armed conflict. Day by day, these conditions provide moderate but chronic stress, which has been identified as a cause of depression by a large group of authors (Almeida et al., 2011; Sterner and Kalynchu, 2010; Vargas-Navarrio, Latorre-Lopez and Parra-Cardenas, 2011; Zou et al., 2012) because it increases reactivity, deteriorates real responsiveness and affects the evaluation that the person makes about their own ability.

On the other hand, and although it should be expected that a national sample study would compare prevalence in different departments, in this investigation it was not possible because the strategy of data collection did not have representative samples for each department.

The factors associated with depression in men that have been found in this and other studies are SLEs and poor *family functioning*. Being exposed to a high number of stressors that occur consecutively (with moderate psychological impact), not having adequate family support and being exposed to a dysfunctional family environment all increase the risk of depression and of it being more severe, with similar findings in previous studies by Folkman (2001). But more than the psychological impact of one particular stressful event, it is the accumulation of events of moderate psychological impact which is associated with the onset and exacerbation of depression in men (Bogdan et al., 2013; Sterner and Kalynchu, 2010; Zou et al., 2012).

The effect of family functioning has also been previously seen as notable, but it had been thought that a perceived high level of family support was associated with depression in men. But as in the present study, which points in the opposite direction in this regard, there is ample evidence

of the negative effect of a lack of social support, especially what is offered or is expected to be offered by the family (Dokin et al., 2013; Grav, Hellzen, Romild and Stordal, 2012; Pawlby et al., 2009) and this, combined with high stress, decreases responsiveness to stress.

The poor family support reported by depressed men has two possible explanations. In the first, it is argued that the household does not have the skills to provide support because of family dynamics (Drydakis, 2013; Vallejo Casarin et al., 2008); and in the second, it is suggested that although the family is able to do so, it is not carried out because the man does not request it since he does not want to go against social precepts (Burton, Stice and Seeley, 2004; Galea et al., 2007). The results of this study indicate that it is precisely this combination of an impoverished, dysfunctional family environment that does not provide support and the male tendency to avoid asking for help that are associated with the high levels of depression in men.

High stress, low support and ways of coping mainly aimed at relieving their emotions rather than finding solutions to the problematic and stressful situation in which *avoidance* and the tendency not to act against the problems (low levels of *problem solving*), in addition to the continuous feeling of guilt (high *self-blame*) facilitate depression because they do not allow the man to fully adjust to the situation, as they do not allow him to understand it and thus arrive at a solution (Carver and Connor-Smith, 2010; Gomez and Aclaren, 2006; Hernangómez Criado, 2012). It is also known that the impact of events depends on the evaluation that each person makes of the resources available to cope with every event, and in this case it is certainly negative based on the low perception of their own ability seen in depressed men (Barcelata et al., 2011; Barrett and Turner, 2005).

The role of *anxiety* increases greatly if combined simultaneously with a gender expression that combines high *submission* / high *masculinity*. Both anxiety and masculinity / femininity were incorporated into the model and were found to be associated with the severity of depression in men, as had been seen in other studies (Campos and Martinez Larrea, 2002. Conner et al., 2008; Merikangas et al., 2009). Although the unexpected combination of high submission / high masculinity had not been seen, this could indicate that the coexistence of two almost opposite characteristics such as submission and masculinity may be difficult to assimilate both theoretically and at a social level, as it is difficult to understand that they can coexist in a person because it involves thinking about with a dominant, independent person who is also dependent and submissive. In this respect, future studies should investigate further and reconfirm if such a psychological ambivalence really exists.

If so, it would be understandable that someone who lives this dissonance would suffer and break down emotionally.

If one wants to explain this unusual combination, one might think that the results point to showing high ambivalence between *whats you are* and *what you want to be*; in other words, that the man wants to be truly independent and dominant, and therefore projects himself in this way in public, but privately he actually perceives himself as flawed because he is indecisive, in need of support and understanding, and is tired of taking the social challenge of being independent, protective and strong.

Submission is the opposite of what is considered male and the social norms for men contain four conditions: possession, strength, capacity and authority. The first three are related to productivity (Broom and Tovey, 2009) and the last is the opposite of submission. So it is expected that a "masculine" man is highly productive and has an economic capacity, conditions that give status and social recognition; therefore, not being productive or not having authority is a symbol of weakness and "unmanliness".

Indeed, as shown by the Adinkrah study (2012), highly *machista* social groups expect men to show aggression, dominance and courage; and hold back public demonstrations of emotions that show "weakness" such as fear, sadness or pain, as they express dependence or indicate dependency or subordination.

The inflexibility of this role causes its negative expression, as men seek to achieve (in some cases extreme) masculine characteristics, even at the expense of their own welfare. Although nowadays, following social changes, it is accepted that men can possess certain characteristics traditionally ascribed to femininity, the idea that a man should never be submissive still stands. These concepts derived from the role to be fulfilled behave like dysfunctional schemes and are used instinctively to evaluate the world and one´s behavior when facing stressful events (Beck, 2008).

In short, when faced with a culture that requires them to be perfect, productive, independent, courageous and emotionally stable; an environment high in stress factors that moderately but steadily impact their emotional functioning; a family group that they must protect and sustain, but that gives them poor support and an environment characterized by communication problems (criticism, judgment and continuous arguments), all these factors combine and can leave men with an impoverished self-image, decreased self-efficacy and high frustration, which can make them feel out of options, with a feeling of emptiness, but also challenged to move on and avoid the sensations that the same culture prevented them from learning to recognize and enjoy.

Although this study has managed to have the highest participation of men so far achieved in Colombia, attaining the sample was a complex task because, despite the strong support of the work team, their dedication and professionalism in the strict application of the protocol for making contact and collecting data, a number of men refused to answer the questionnaires, completed the questionnaire but didn't sign the consent form, or gave answers randomly.

It is also necessary to study comorbidity with other disorders and the real limits of expression of each one to determine whether the findings are due to the co-occurrence of disorders and not that depression in men actually differs from that expressed by women.

REFERENCE

Adam, E. K., Doane, L. D., Zinbarg, R. E., Mineka, S., Craske, M. G. y Griffith, J. W. (2010). Prospective prediction of major depressive disorder from cortisol awakening responses in adolescence. *Psychoneuroendocrinology, 35*, 921-931. doi:10.1016/j.paid.2011.02.008

Adinkrah, M. (2012). Better dead tan dishonored: Masculinity and male suicidal behavior in comtemporary Ghana. *Social Science & Medecine, 74*(4), 474-481. doi: 10.1016/j.socssimed.2010.10.011.

Almeida, O., Alfonso, H., Pirkis, J., Kerse, N., Sim, M., Flicker, L., Snowdon, J., Draper, B., Byrne, G., Goldney, R., Lautenschlager, N., Stocks, N., Scazufca, M., Huisman, M., Araya, R. y Pfaff, J. (2011). A practical approach to assess depression risk and to guide risk reduction strategies in later life. *International Psychogeriatrics, 23*(2), 280-291. doi: 10.1017/S1041610210001870

Almeida, O., Pirkis, J., Kerse, N., Sim, M., Flicker, L., Snowdon, F., Draper, B., Byrne, G., Lautenschlager, N., Stocks, N., Alfonso, H. y Pfaff, J. (2012). Socioeconomic disadvantage increases risk of prevalent and persistent depression in later life. *Journal of Affective Disorders, 138*(3), 322-331. doi: 10.1016/j.jad.2012.01.021.

Álvarez, N. y Londoño, C. (2012). Diseño y validación del Cuestionario de Depresión en Hombres. Tesis de Maestría. Universidad Católica de Colombia.

American Psycological Asociation. (2013). *Diagnostic and statistical manual of mental disorders, DSM-V*. Washington, DC: American Psychiatric Association.

Arsenault-Lapierre, G., Kim, C. y Turecki, G. (2004). Psychiatric diagnoses in 3275 suicides a meta-analysis. *BCM Psychiatry, 4*, 37-47. doi:10.1016/j.jmhg.2005.05.004

Barcelata, B., Durán, E. y Gómez–Maqueo, L. (2012). Valoración subjetiva de los sucesos de vida estresantes en dos grupos de adolescentes de zonas marginadas. *Salud Mental, 35*(6) 513-520. Recuperado de: http://www.scielo.org.mx/ scielo.php?pid=S0185-3252012000600009yscript=sci_ ar ttext

Barrett, A. y Turner R. (2005). Family structure and mental health: The mediating effects of socioeconomic status, family process, and social stress. *Journal of Health Social Behavior, 46*(2), 156-169. Recuperado de: http://www.scielo.org.mx/scielo.phpscript=sci_nlinksyref=2465105ypid=S0185-3325201200060000900020ylng=es

Beck, A. T. (2008). The evolution of the cognitive model of depression and its neurobiological correlates. *American Journal of Psychiatry, 165*(8), 969-977. doi: 10.1176/appi.ajp.2008.08050721

Birmaher, B. y Heydl, P. (2001). Biological studies in depressed children and adolescents. *International Journal of Neuropsychopharmacology, 4,* 149-157. doi:10.1007/s10567-011-0084-5

Bogdan, R., Nikolova, Y. y Pizzagalli, D. (2013). Neurogenetics of depression: A focus on reward processing and stress sensitivity. *Neurobiology of Disease, 52,* 12-23. doi:10.1016/j.nbd.2012.05.007

Broom, A. y Tovey, P. (2009). *Men´s Health*. United Kingdom: Wiley.

Burton, E., Stice, E. y Seeley, J. R. (2004). A prospective test of the stress-buffering model of depression in adolescent girls: No support once again. *Journal of Consulting y Clinical Psychology, 72,* 689-697. doi: 10.1097/00004583-200001000-00016.

Caballo, V. (2006). *Manual para la evaluación clínica de los trastornos psicológicos. Trastornos de la edad adulta e informes psicológicos*. Madrid: Pirámide

Campos, M. S. y Martínez-Larrea, J. A. (2002). Trastornos afectivos: análisis de su comorbilidad en los trastornos psiquiátricos más frecuentes. *Anales, 25*(3), 117-136. Recuperado de: http://www.cfnavarra.es/salud/anales/textos/suple25_3.html

Carver, C. S. y Connor-Smith, J. (2010). Personality and Coping. *Annual Review of Psychology, 61,* 679-704. doi: 10.1146/annurev.psych.093008.100352

Caspi, A., Hariri, A. R., Holmes, A., Uher, R. y Moffitt, T. E. (2010). Genetic sensitivity to the environment: the case of the serotonin transporter gene and its implications for studying complex diseases and traits. *American Journal of Psychiatry, 167*, 509-527. doi: B300B285D519C934EB192E145997CA2B.-zQKnzAySRvJOZcdfIziQ%3a3

Chang, S. M., Hahm, B-J., Lee, Y-J., Shin, M. S., Jeon, H. J., Hong, J. P. y Cho, H. (2008). Cross-national difference in the prevalence of depression caused by the diagnostic threshold. *Journal of Affective Disorders, 106*(1-2), 159-167. doi:10.1016/j.jad.2007.07.023.

Conner, K., Pinquart, M. y Gamble, S. (2008). Meta-analysis of depression and substance use among individuals with alcohol use disorders. *Journal of Substance Abuse Treatment, 37*(2), 127-137. doi: 10.1016/j.jsat.2008.11.007

Conradi, H. J., Ormel, J. y de Jonge, P. (2011). Presence of individual (residual) symptoms during depressive episodes and periods of remission: a 3 year prospective study. *Psychological Medicine, 44*, 1165-1174. doi: 10.1017/S0033291710001911

Córdoba, J., Fuentes, A. y Ruíz, C. (2011). Revisión Bibliográfica sobre características sociodemográficas y repercusiones de la depresión en el trabajador. *Medicina y Seguridad en el Trabajo, 57*(223), 174-187. Recuperado de: http://scielo.isciii.es/pdf/mesetra/v57n223/revision.pdf

Dokin, R., Rubino, J., Allen, L., Friedman, J., Gara, M., Mark, M. y Menza, M. (2013). Predictors of treatment response to cognitive behavioral therapy for depression in Parkinson's disease. *Journal of Consulting and Clinical Psychology, 80*(4), 694-699. doi: 10.1037/a0027695

Drydakis, N. (2013). Mullying at school and labour market outcomes. *IZA Discussion Paper, 7432*, mayo. Recuperado de: http://ftp.iza.org/dp7432.pdf

Egan, S., Wade, T. y Shafran, R. (2011). Perfectionism as a trans-diagnostic process: A clinical review. *Clinical Psychology Review, 31,* 203-212. doi:10.1016/j.cpr.2010.04.009

Federación Mundial de Salud Mental. (2012). Depresión: Una crisis global. Día Mundial de la Salud Mental 2012. Recuperado de: http://www.wfmh.org/2012DOCS/WMHDay%20Packet%20-%20%20Spanish %20Translation%202.pdf

Friedman, E. S. y Thase, M. E. (1995). Trastornos del estado de ánimo. En V. Caballo, G. Buela y J. A. Carrobles (dirs.), *Manual de Psicopatología y Trastornos Psiquiátricos*, vol. 1 (pp.619-681). Madrid: Siglo XXI

Fellinger, J., Holzinger, D., Sattel, H., Laucht, M. y Goldberg, D. (2009). Correlates of mental health disorders among children with hearing impairments. *Development Medical Child Neurology, 51*(8), 635-641. doi: 10.1111/j.1469-8749.2008.03218.

Folkman, S. (2001). Revised coping theory and the process of bereavement. En M. S. Stroebe y R. O. Hansson (Eds.), *Handbook of Bereavement Research: Consequences, Coping and Care* (pp. 563–584). Washington, DC: American Psychological Association.

Forero, L., Avendaño, M., Duarte, C. y Campo-Arias, A. (2006). Consistencia interna y análisis factorial del APGAR. *Revista Colombiana de Psicología, 35*(1), 23-29. Recuperado de: http://www.scielo.org.co/scielo.php?script=sci_arttextypid=S0034-74502006000100003

Galea, S., Ahern, J., Nandi, E., Tracy, M., Beard, J. y Vlavov, D. (2007). Urban neighborhood poverty and the incidence of depression in a population-based cohort study. *Annals of Epidemiology, 17*(3), 171-179. doi:10.1016/j.annepi-dem.2006.07.008.

Galicia, I., Sánchez, A. y Robles, P. J. (2009). Factores asociados a la depresión en adolescentes. *Anales de Psicología, 25*(2), 227-240. *doi*:10.6018/87501

Grav, S., Hellzen, O, Romild, U. y Stordal, E. (2012). Association between social support and depression in the general population: The Hunt study, a cross-sectional survey. *Journal of Clinical Nursing, 21*(1-2), 111-120. doi: 10.1111/j.1365-2702.2011.03868.

Gotlib, I. y Hammen, C. (2012). *Handbook of Depression*. New York: Guilford Press.

Gobierno de Canarias. (2010). *Antidepresivos en el tratamiento de la depresión. Bolcan, buen uso de los medicamentos*. Canarias: España

Gómez, R. y Aclaren, S. (2006). The association of avoidance coping style, and perceived mother and father support with anxiety/depression among late adolescents: applicability of resiliency models. *Personality and Individual Difference, 40,* 1165-1176. doi:10.1016/j.paid.2005.1

Gómez-Restrepo, C., Bohórquez, A., Pinto Masis, D., Gil Laverde, J. F. A., Rondón Sepúlveda, M. y Díaz Granados, N. (2004). Prevalencia de depresión y factores asociados con ella en la población colombiana. *Revista Panamericana de Salud Pública, 16*(6), 378-86. doi:10.1590/S1020-49892004001200003

Gómez, S. T., Gomes, F., Frota, M. V., Aguiar, M. B. y Nogueira, M. B. (2012). Substance abuse and depression in adolescents. *Neuropsychiatries de l'Enfance et de l'Adolescence, 60*(5), S243. doi: 10.1016/j.neurenf.2012.04.601

Haeffel, G., Abramson, L., Brazy, P., Shah, J., Teachman, B. y Nosek, B. (2007). Explicit and implicit cognition: A preliminary test of a dual-process theory of cognitive vulnerability to depression. *Behaviour Research and Therapy*, *45*(6), 1155-1167. Recuperado de: http://projectimplicit.net/papers.html

Heponiemi, T., Elovainio, M., Kivimäki, M., Pulkki, l., Puttonen, S. y Keltikangas-Järvinen, L. (2006). The longitudinal effects of social support and hostility on depressive tendencies. *Social Science y Medicine, 63*(5), 1374-1382. doi:10.1016/j.socscimed.2006.03.036

Hernangómez Criado, L. (2012). Vulnerabilidad cognitiva a la depresión: relación entre sesgos atencionales, Tesis Doctoral, Universidad Complutense de Madrid. Recuperado de: http://eprints.ucm.es/16407/

Huurre, T., Eerola, M., Rahkonen, O. y Does, H. (2006). Social support affect the relationship between socioeconomic status and depression? A longitudinal study from adolescence to adulthood. *Journal of Affective Disorders, 100*(1-3), 55-64. doi: 10.1016/j.jad.2006.09.019

Ibarra-Alcantar, M., Ortiz-Guzmán, J., Alvarado-Cruz, F., Graciano-Morales, H. y Jiménez-Genchi, A. (2010). Correlatos del maltrato físico en la infancia en mujeres adultas con trastorno distímico o depresión mayor. *Salud Mental, 33*(4), 317-324. Recuperado de: http://www.scielo.org.mx/pdf/sm/v33n4/v33n4a3.pdf

Instituto Nacional de Medicina Legal y Ciencias Forenses. (2013). *Forensis: Datos para la vida*. Recuperado de: http://www.medicinalegal.gov.co/index.php?option= comwrapperyItemid=323

Instituto Nacional de Salud Mental. (2013). Depresión. Recuperado octubre de 2013 de: http://www.nimh.nih.gov/health/publications/espanol/depresion/depresion.pdf

Juárez, F. y Guerra, R. (2011). Características socioeconómicas y salud en personas pobres y desplazadas. *Psicología: Teoría e Pesquisa, 27*(4), 511-519.

Karg, K., Burmesister, M., Shedden, K. y Sen, S. (2011). The serotonin transporter promoter variant (5-HTTLPR), stress,

and depression meta-analysis revisited: evidence of genetic moderation. *Archives of General Psychiatry, 68*, 444-454. doi: 10.1001/archgenpsychiatry.2010.189

Kutcher, S., Kusumakar, V., LeBlanc, J., Santor, D., Lagace, D. y Morehouse, R. (2004). The characteristics of asymptomatic female adolescents at high risk for depression: the baseline assessment from a prospective 8-year study. *Journal of Affective Disorders, 79*(1-3), 177-185. doi: 10.1016/S0165-0327(02)00458-5

Lara, M. (1991). Masculinidad, feminidad y salud mental: Importancia de las características no deseables de los roles de género. *Salud Mental, 14*(1), 12-18. Recuperado de: http://psycnet.apa.org/index.cfm?fa=search.displayRecord&UID=1993-85005-001

Lund, C., Breen, A., Flisher, A., Kakuma, R., Corrigall, J., Joska, J., Swartz, L. y Patel, V. (2010). Poverty and common mental disorders in low and middle income countries: A systematic review. *Social Science and Medicine, 71*(3), 517-528. doi: 10.1016/j.socscimed.2010.04.027

Martínez, J. Guerrero, S. y Rey A. (2012). Evaluación y validez de constructo y confiabilidad del Inventario de masculinidad y feminidad en adolescentes y adultos colombianos. *Avances en Psicología Latinoamericana, 30* (1), 170-181. Recuperado de: http://revistas.urosario.edu.co/index.php/apl/article/viewFile/1180/1800

Mejía Castillo, A. de J. (2011). Estrés ambiental e impacto de los factores ambientales en la escuela. *Pampedia, 7,* 3-18. Recuperado de: http://www.uv.mx/pampedia/numeros/numero-7/Estres-ambiental-e-impacto-de-los-factores-ambientales-en-la-escuela.pdf

Merikangas, K. R., Jin, R., He, J-P., Kessler, R., Lee, S., Sampson, N., Viana, M. C. Andrade, L. H., Hi, Ch., Karam, E., Ladea, M., Medina-Mora, M. E., Ono, Y., Posada-Villa, J., Sagar, R., Wells, E. y Zarkov, Z. (2011). Prevalence and correlates of bipolar spectrum disorder in the World Mental Health Survey Initiative. *Archive General of Psychiatry, 68*(3), 241-251. doi:10.1001/archgenpsychiatry.2011.12

Ministerio de Protección Social Colombia. (2003). *Informe Estudio Nacional de Salud Mental*. Bogotá D.C.: Gobierno Nacional. Recuperado noviembre 18 de 2013 de http://www.minproteccionsocial.gov.co/vbecontent/library/documents/DocNewsNo15133DocumentNo1981.PDF.

Mittendorfer-Rutz, W. E. (2006). Trends of youth suicide in Europe during the 1980`s and 1990`s. *Gender Differences and Implications for Prevention, 3,* 250-257.doi:10.1016/j.jmhg.2006.02.006.

Moore, S. M. y Hadjiyannakis, K. (2002). The Social Environment and Depression: Focusing on Severe Life Stress. En I. Gotlib y C. Hammen, (2002). *Handbook of Depression*. (pp. 314-340). New York: Guilford Press.

O´Connor, S., Comtois, K., Atkins, D., Janis, K., Chessen, C. y Landes, S. (2012). Ideación suicida: Identifying outpatients with entrenched suicidal ideation. *Following Hospitalization, 42*(2), 173-184. doi: 10.1111/j.1943-278X.2012.00080.x

Oliva, A., Jiménez, J., Parra, Á. y Sánchez-Queija, I. (2008). Acontecimientos vitales estresantes, resiliencia y ajuste adolescente. *Revista de Psicopatología y Psicología Clínica, 13*(1), 53-62. doi: 10.1007/s10826-012-9681-

Organización Mundial de la Salud (2012). Gender and Mental Health. Ginebra Recuperado de: http://www.Who.int/gender/henderandhealth.html

Organización Panamericana de la Salud (2010). Sistema de Clasificación Estadística Internacional de Enfermedades y Problemas Relacionados con la Salud [CIE-10.

Organización Panamericana de la Salud. (2012). Día Mundial de la Salud Mental. Recuperado de: http://www.paho.org/arg/index.php?option=com_content&view=article&id=1047&Itemid=325

Palomar, J. y Cienfuegos, Y. (2007). Pobreza y apoyo social: un estudio comparativo en tres niveles socioeconómicos. *Revista Interamericana de Psicología, 41*(2), 177-188. Recuperado de: http//:www.revista.unam.mx/vol.6/.../nov_art111.pdf

Pawlby, S., Hay, D. F., Sharp, D., Waters, C. S. y O'Keane, V. (2009). Antenatal depression predicts depression in adolescent offspring: Prospective longitudinal community-based study. *Journal of Affective Disorders, 113,* 236-243. PMID: 18602698

Rafful, C., Medina-Mora, M. E., Borges, G., Benjet, C. y Orozco, R. (2012). Depression, gender and the treatment gap in Mexico. *Journal Affective Disorders, 138*(35), 1-11. *doi*: 10.1016/j.jad.2011.12.040

Rico, J., Restrepo, M. y Molina, M. (2005). Adaptación y validación de la Escala Hospitalaria de Ansiedad y Depresión (HAD) en una muestra de pacientes con cáncer del Instituto Nacional de Cancerología de Colombia. *Avances en Medición, 3*, 73-86. Recuperado de: http://www.humanas.unal.edu.co/psicometria/files/3213/8574/8906/Articulo_4_Validacin_del_HAD_73-86_2.pdf

Rueda, C. y Vélez-Botero, B. (2010). Características psicométricas de un cuestionario de estilo de afrontamiento. *Típica Boletín de Salud Escolar, 5* (6), 2. Recuperado de: http://www.tipica.org/index.php?option=com_content&view=article&id=143&Itemid=11

Rasmussen, S., Elliot, M. y O´Connor, R. C. (2012). Psychological distress and perfectionism in recent suicide attempters: The role of behavioural inhibition and activation. *Personality and Individual Differences, 52*(6), 680-685. *doi:* 10.1016/j.paid.2011.12.011

Sander, J. y McCarty, C. (2005). Youth depression in the family context: Familial risk factors and models of treatment. *Clinical Child and Family Psychology Review, 8,* 203-219. doi: 10.1007/s10567-005-6666-3

Sandín, B. (2003). El estrés: Un análisis basado en el papel de los factores sociales. *Revista Internacional de Psicología Clínica y de la Salud, 3*, 141-157. Recuperado de: http://www.aepc.es/ijchp/articulos_pdf/ijchp-65.pdf

Sandler, I. y Chassin, L. (2002). Training of prevention researchers: Perspectives from the Arizone State University Prevention

Research Training Program. *Prevention and Treatment*. Recuperado de http://jourenlasapa.org/prevention/volumen5/pre0050006a.html

Smilkstein G. (1978). The family APGAR: a proposal for a family function test and its use by physicians. *Journal of Family Practice, 6,* 1231-1239.

Sterner, E. y Kalynchu, L. (2010). Behavioral and neurobiological consequences of prolonged glucocorticoid exposure in rats: Relevance to depression. *Progress in Neuro-Psychopharmacology and Biological Psychiatry, 34*(5), 777-790. Doi:10.1016/j.pnpbp.2010.03.005

Troister, T. y Holden, R. (2010). Comparing psychache, depression, and hopelessness in their associations with suicidality: A test of Shneidman's theory of suicide. *Personality and Individual Differences*, *49*(7), 689-693. Doi: 10.1177/0748175612451744

Vallejo Casarín, A., Osorno Murguía, R. y Mazadiego Infante, T. (2008). Estilos parentales y sintomatología depresiva en una muestra de adolescentes veracruzanos. *Enseñanza e Investigación en Psicología, 3*(1), 91-105.

Vargas-Navarrio, P., Latorre-López, D. y Parra-Cárdenas, S. (2011). Estresores psicosociales y depresión mayor recurrente. *Revista Salud Bosque, 1* (2), 39-53. Doi: 10.4067/S0717-92272002000500005.

Vázquez, L. F., Muñoz, R. y Becoña, E. (2000). Depresión: diagnóstico, modelos teóricos y tratamiento a finales del siglo XX. *Psicología Conductual, 8*(3), 417-449. Recuperado de http://www.behavioralpsycho.com/PDFespanol/ 2000/art02.3-.08.pdf

Vrshek-Schallhorn, S., Doane, L. D., Mineka, S., Zinbarg, R. E., Craske, M. G. y Adam E. K. (2012). The cortisol awakening response predicts major depression: predictive stability over a 4-year follow-up and effect of depression history. *Psychosomatic Medecine*, 1-11. Doi:10.1017/S0033291712001213

Zou, Y. F., Wang, F., Feng, X., Li, W., Tao, J. H., Pan, F. M., Huang, F. y Su, H. (2012). Meta-analysis of FKBP5 gene polymorphisms association with treatment response in patients with mood disorders. *Neuroscience letters, 484*(1), 56-61. Doi: 10.1016/j.neulet.2010.08.019

Zigmond, A. y Snaith, R. (1983). The hospital anxiety and depression scale. *Acta Psychiatric Scand, 67*(6), 361-370. PMID: 6880820