Adrián Cano-Prous[1]
Jaime Moyá-Querejeta[2]
Álvaro Alonso[3]
Raquel Martín-Lanas[1]
Salvador Cervera-Enguix[1†]

Personality: a determinant in marital dissatisfaction in individuals with major depression and their couples

[1]Departamento de Psiquiatría y Psicología Médica
Clínica Universidad de Navarra
[2]Hospital Clínic Universitari de Barcelona
[3]Division of Epidemiology and Community Health
School of Public Health, University of Minnesota, Minneapolis, MN 55454, USA

Introduction: Prior research suggests that some factors account for the association between marital dissatisfaction and Major Depression. We examined whether personality determines the association between marital dissatisfaction and a First Episode of Major Depression (FEMD), and whether specific personality factors are linked to marital dissatisfaction depending on the outcome of the FEMD.

Methods: The Hamilton Rating Scale for Depression and the Dyadic Adjustment Scale were administered both at baseline (T1) and six months later (T2), at 6 outpatient settings. We counted on the participation of 59 married couples with one member fulfilling DSM-IV criteria for a FEMD, and a healthy partner. Depressed participants also completed the NEO Personality Inventory-Revised.

Results: Certain personality factors mediate the association of a FEMD and Marital Dissatisfaction. "Neuroticism" mediates the association both at T1 and T2. However, the relationship between personality factors and Marital Dissatisfaction depends on the outcome of the Episode. If it has remitted by T2, personality might not be associated with marital interaction. However, if depression persists, "openness" and "conscientiousness" are related to less marital dissatisfaction.

Conclusion: The most important mediating personality factor between marital dissatisfaction and a First Episode of Major Depression is "neuroticism".

Keywords: Personality, Neuroticism, Major depression, Marital dissatisfaction

Actas Esp Psiquiatr 2013;41(6):340-8

Correspondence:
Adrián Cano-Prous
Departamento de Psiquiatría y Psicología Médica. Clínica Universidad de Navarra.
Avda. Pío XII, 36. 31008 Pamplona, Spain
Tel.: (+34) 948 255 400
Fax: (+34) 948 296 500
E-mail: acanoprous@unav.es

Personalidad: un determinante de la satisfacción conyugal en matrimonios con un cónyuge diagnosticado de depresión mayor

Introducción*:* La literatura sugiere que existen factores que explican la asociación entre insatisfacción conyugal y Depresión Mayor. Analizamos si la personalidad actúa como factor determinante en la asociación entre insatisfacción conyugal y la aparición de un Primer Episodio de Depresión Mayor (PEDM). Además, estudiamos si hay factores de personalidad específicos que se relacionen con la insatisfacción conyugal en función de la evolución del PEDM.

Metodología*:* Administramos la Escala de Hamilton para la Depresión y la Escala de Ajuste Diádico en el momento del diagnóstico del trastorno depresivo (T1) y seis meses más tarde (T2), en seis centros ambulatorios. Participaron 59 matrimonios con un cónyuge diagnosticado de PEDM y otro cónyuge sano. Además, los pacientes deprimidos completaron el Inventario de Personalidad NEO-PIR.

Resultados: Hay factores de personalidad que median entre el PEDM y la insatisfacción conyugal. El "neuroticismo" media tanto en T1 como en T2. Sin embargo, la relación entre los factores de personalidad y la insatisfacción conyugal depende de la evolución del episodio. Si éste ha remitido en T2, la personalidad puede no asociarse con la interacción conyugal, pero si persiste, la "apertura" y la "responsabilidad" se asocian con menor insatisfacción conyugal.

Conclusiones: El "neuroticismo" es el factor de personalidad más importante como mediador entre insatisfacción conyugal y la evolución de un PEDM.

Palabras clave: Personalidad, Neuroticismo, Depresión mayor, Insatisfacción conyugal

INTRODUCTION

Many publications have demonstrated that marital dissatisfaction is associated with the diagnosis of depression.[1] However, most of the studies evaluating the subject have been cross-sectional[2] and have focused on evaluating the association between marital dissatisfaction and depressive symptoms,[3] but not on marital dissatisfaction and Major Depression.[4] Furthermore, controversy exists on which factor comes first. Some investigators have found that marital malaise precedes depression.[5] On the contrary, others indicate that depression has a very important impact and could even lead to marital dysfunction[6] although it has also been argued that a bidirectional relationship exists between both factors.[7]

Considering the difficulty involved to unravel the chronological succession and complexity of its association, Whisman[8] proposed that the mediators and moderators present in it should be investigated. In fact, he suggested the possibility that a "third variable" such as marital warmth[9] or coping styles[10] are related with depressive disorder as well as marital problems.

There has been an ongoing study for decades on the relationship between the personality and Depression factors,[11] as well as that personality disorders are associated with its poor course[12] and with greater marital dissatisfaction.[13] On the other hand, evidence has been found regarding an association between personality characteristics and degree of marital well-being.[14]

Even more, some studies have demonstrated that the personality factor of "neuroticism" is probably one of the best candidates to act as a mediator between depression and marital dissatisfaction.[15] In fact, a relationship has been found between this factor and familial functioning in families with a depressed patient,[16] and its association with a greater likelihood of the presentation of depressive symptoms when there is marital dissatisfaction.[17] Some studies have postulated that only neuroticism of the male would affect marital adaptation,[18] while other works indicate that neuroticism of the wife affects the husband.[19]

Furthermore, the relation between neuroticism and the tendency to suffer Major Depression is largely caused by genetic factors, which in the case of women predisposes to both neuroticism and the affective disorder.[20] There are currently few studies that analyze other personality factors that could mediate in the association between Major Depression and marital dissatisfaction.

Considering the existing evidence, the current longitudinal and perspective study has attempted to approach the role of personality in the association between Major Depression and marital dissatisfaction at the time when a First Episode of Major Depression is diagnosed and also at six months.

METHODOLOGY

Inclusion/exclusion criteria

Study participants (1) aged 18 to 65 years, (2) married for at least two years, (3) who were currently living with their marital partner and (4) who agreed to sign the informed consent were included in this study. In addition, one of the spouses (5) met the DSM-IV criteria for a Major Depression Episode at the time of the initial evaluation and had a score greater than 14 points on the Hamilton Depression Rating Scale (HDRS), while the other spouse (6) did not meet these diagnostic criteria and obtained less than eight points on the HDRS.

Exclusion criteria included those marriages in which one of the spouses (1) had been diagnosed of Psychoses, Substance Dependence or Abuse, Organic Mental Disorder, Conversion and Dissociative Disorders, Obsessive-Compulsive Disorder or Eating Behavior Disorder or those under any psychological or psychopharmacological treatment or (2) those suffering a significant organic disease, and those marriages in which (3) the wife was pregnant or (4) the depressed spouse had been hospitalized for treatment of the depressive disorder.

Participants

We studied 154 married couples in which the spouse had been diagnosed of FEMD in one of the following six services: Out Patient Clinics of the Psychiatry Department of the Clínica Universidad de Navarra, Mental Health Center Casco Viejo of Pamplona, Mental Health Center of Ermitagaña of Pamplona, Mental Health Center of Tudela, Mental Health Center of Azagra and a private consultation in Barcelona. The data were collected simultaneously in the different services for an 18-month period. Most of the subjects were referred by their primary care physician while some came to said services directly.

Of the 154 initial married couples in which one of the spouses had been diagnosed of FEMD, 61 (40%) did not meet the inclusion criteria and 22 (14%) did not agree to participate in the study. Thus, the sample included 71 couples who were evaluated at the time in which one of the spouses had been diagnosed of FEMD.

However, 12 married couples did not complete the evaluation at T2 so that they were excluded from the analysis. Five of them decided to not continue in the study and the remaining seven no longer met the inclusion

criteria. Thus, 59 married couples (83%) evaluated at the onset of the affective disorder were interviewed again at 6 months.

No statistically significant differences were found in this sociodemographic data or in the marital functioning between the married couples who remained in the study and those who had withdrawn from it. The final sample was mainly constituted by non-minority group Spanish families (95% Caucasian race). Mean age of the participants was 44 years (SD=1.3). They had been married a mean of 17 years (CI: 95%: 20.1–14.3) and had a mean of 2 to 3 children. Furthermore, 76% of them lived at home alone with their children (without other family members) and a large majority of them worked (90.1%). In our sample, women (62%) were those who most frequently suffered the depressive disorder (*vs* 38% of the husbands). The sociodemographic information of this sample is detailed in Moyá et al.[21]

Procedures and measurements

All of the study procedures, evaluation measures and forms were done with the approval of the Ethics Committee of the Clínica Universidad de Navarra and in accordance with their guidelines. The participants followed the pertinent protocols before initiating their participation in the study, and did not receive any financial compensation.

The same psychiatrist evaluated all the married couples recruited. When possible, questionnaires and scales that had already been used in Spain were administered. The remaining evaluation measures were translated using a process of several translations and back- translations.[22,23,24] [22-24] The married couples were always interviewed individually and filled out the tests detailed in the following.

Diagnostic interviews

The structured clinical interview of DSM-IV[25] was chosen due to its rigorousness in diagnostic evaluation. This is a structured interview designed to systematically evaluate the DSM-IV criteria for the diagnosis of the Axis I. The final diagnosis was always issued by the same investigator. Remission was considered when the DSM-IV criteria for Major Depressive Disorder were not fulfilled, when the result of the Global Assessment of Functioning Scale (GAFS) was ≥80 and the Hamilton Depression Rating Scale was less than 9 points. Any clinical presentation other than these premises was considered as non-remission.

Depressive symptoms

The Hamilton Depression Rating Scale[26] was applied. This is a widely extended instrument, administered by the interviewer, designed to evaluate severity of the depressive symptoms. The Global Assessment of Functioning Scale (GAFS) was also used to evaluate functional limitation grade of the depressed subject.

Marital functioning

We used the Dyadic Adjustment scale (DAS): the 32-item questionnaire[27] provides an evaluation of perceived marital quality. It is made up of four subscales: Dyadic satisfaction, Dyadic cohesion, Dyadic Consensus and Affective Expression, which can be summed up to obtain a global Dyadic Adjustment scale (the highest scores indicate greater satisfaction).

Personality

The *NEO-FFI*[28] evaluates five personality traits through 60 items (neuroticism, extroversion, openness, agreeableness and conscientiousness). An 0.63 interrater correlation was found for "neuroticism," while the correlation of this self-evaluated factor or by another evaluation was 0.55.[29] The NEO-FFI has also demonstrated its utility to evaluate personality traits in Major Depression,[30] especially the influence of neuroticism on the course of the disease.[31]

RESULTS

Each participant provided data on their level of marital satisfaction by filling out the Dyadic Adjustment Scale. The statistical differences between marital satisfaction of the depressed subjects (M=106.8; SD=2.8) and their spouses (M=107.7; SD=2.3) were not significant (p>0.05). Both the global scale of the questionnaire as well as the subscales were within the 45-50 percentile of the standard distribution. Given that the two spouses of a "depressed marriage" had similar levels of marital satisfaction, we calculated the mean of each marriage.

In the first place, we analyze the correlations between the patient's personality factors and the perception of their spouses about the relationship at the time of diagnoses (T1). We could observe that in both the crude analysis and in the age and gender adjusted analysis, the scores obtained by the couple on the DAS and the scores of the healthy spouses were, although moderately, associated with the grade of "neuroticism" of the patient (*r*=-0.28,

Table 1 Correlations between personality factors and marital satisfaction at T1 (n=71)

FACTORS OF THE NEO-FFI	TOTAL DAS OF THE PATIENT		TOTAL DAS OF THE HEALTHY SPOUSE		MEAN DAS OF THE MATRIMONY	
	r	p	r	p	r	p
CRUDE						
Neuroticism	-0.17	0.19	**-0.33**	**0.01**	**-0.28**	**0.04**
Extraversion	0.02	0.85	-0.01	0.95	-0.03	0.85
Openness	0.15	0.26	0.04	0.99	0.12	0.37
Agreeableness	0.14	0.30	0.13	0.32	0.17	0.21
Responsibility	0.21	0.12	0.23	0.08	0.23	0.10
ADJUSTED BY AGE AND GENDER OF THE PATIENT						
Neuroticism	-0.17	0.22	**-0.35**	**0.01**	**-0.27**	**0.04**
Extraversion	0.00	0.99	0.06	0.67	-0.02	0.89
Openness	0.18	0.19	0.05	0.73	0.09	0.51
Agreeableness	0.16	0.23	0.15	0.27	0.15	0.27
Responsibility	0.20	0.15	0.21	0.11	0.24	0.07

r= Pearson correlation coefficient; the score with a significant of p≤0.05 are shown in bold. Statistical analysis used: correlation coefficient (adjusted by age and gender in the second part of the table). DAS= Dyadic Adjustment scale. NEO-FFI= NEO-Five Factor Inventory.

p<0.05; *r*=-0.33, p<0.01). Equally, when analyzing the personality factor of "responsibility," we could observe that the results were within the limit of statistical significance, which leads us to consider a possible covariance (Table 1).

At the time of the second evaluation (T2) the disease remitted in 36 of the 59 depressed patients (61%). Almost all of them were taking antidepressants (93%), generally selective serotonin reuptake inhibitors, and approximately one fourth of them also were receiving structured psychotherapy (28%), this being in most of the cases behavioral cognitive therapy.

Reflecting on this predominantly positive result, the mean score on the Hamilton Depression Rating Scale decreased from 19.8 (SD=0.5) in T1 to 8.9 (SD=0.9) in T2, and the score of the GAFS increased from 67.99 (SD=0.8) to 78.3 (SD=1.1) between both evaluations.

When analyzing the association between the personality factors and marital satisfaction at this time, we observed similar results to those obtained in T1. The DAS scores were associated with the personality factors of the depressed spouse, "neuroticism" once again being the most outstanding factor.

In fact, this personality factor is inversely, and in most of the cases significantly, associated with the scores obtained on the DAS by the patients (*r*=-0.26, p<0.05) or by both spouses as a whole (*r* =-0.27, p<0.05) (Table 2).

However, it stands out that the personality factor "responsibility" is also significantly associated with the total score of the DAS of the depressed patients (*r*=0.27, p<0.05), as well as with that of both spouses together (*r*=0.27, p<0.05) (Table 2).

We have tried to determine which factors were associated to a positive course. To do so, we carried out a logistic regression analysis, whose dependent variable was remission of the depressive episode, the independent variables being levels of marital satisfaction (scores obtained on the DAS), severity of depressive symptoms measured by the HDRS, level of neuroticism and age (Table 3).

We calculated the odds ratio and found that a 5-point increase in the depressive symptoms would reduce likelihood of recovery by 31% and that being 10 years older would decrease this likelihood by 50%. Furthermore, when adjusting for the remaining variables, an increase of five points on the results of "neuroticism" would reduce the likelihood of remission by 20% while a decrease of 10 points

Table 2 Correlations between personality factors and marital satisfaction at T2 (n=59)

FACTORS OF THE NEO-FFI	TOTAL DAS OF THE PATIENT		TOTAL DAS OF THE HEALTHY SPOUSE		MEAN DAS OF THE MATRIMONY	
	r	p	r	p	r	p
CRUDE						
Neuroticism	**-0.26**	**0.05**	-0.23	0.08	**-0.27**	**0.04**
Extraversion	0.01	0.93	0.13	0.34	0.10	0.45
Openness	0.21	0.11	0.14	0.30	0.23	0.09
Agreeableness	0.18	0.18	0.23	0.08	0.25	0.06
Responsibility	**0.27**	**0.04**	0.23	0.08	**0.27**	**0.04**
ADJUSTED BY AGE AND GENDER OF THE PATIENT						
Neuroticism	-0.24	0.08	**-0.26**	**0.05**	**-0.28**	**0.04**
Extraversion	0.05	0.72	0.16	0.23	0.07	0.60
Openness	0.25	0.06	0.15	0.25	0.20	0.13
Agreeableness	0.22	0.09	0.23	0.08	0.23	0.08
Responsibility	0.26	0.06	0.23	0.08	**0.28**	**0.03**

r= Pearson correlation coefficient; the score with a significant of p≤0.05 are shown in bold. Statistical analysis used: correlation coefficient (adjusted by age and gender in the second part of the table).

Table 3 Predictors of remission of the Depressive Episode

	p tendency	Odds Ratio	95% CI
Mean of the spouse on the HDRS (per every 5 points)	0.33	0.69	0.33-1.45
Mean age of both spouses (per every 10 points)	0.08	0.55	0.29-1.06
Mean of the spouses in Neuroticism (per every 5 points)	0.33	0.80	0.51-1.25
Mean of the marital couple on the DAS (per every 10 points)	0.43	0.80	0.46-1.39

on the DAS questionnaire (more dissatisfaction) would also be associated with a 20% lower likelihood of recovery, the coefficient of determination (r^2) being 0.475. Therefore, 47.5% of the variability of this dependent variable would be explained by the regression model (table 3).

We analyzed the married couples in whom the depression had remitted. We did not find statistically significant associations between their personality factors on the scores on marital satisfaction (table 4). We also analyzed the couples with a persistent depressive episode and the results obtained were radically different. On the contrary to the couples without remission of the episode, the factor "openness" was associated to results obtained on the DAS both individually (r=0.48, p<0.05) and by the married couple together (r=0.41, p<0.05). Furthermore, the personality factor of "agreeableness" was not associated with any measurement of grade of adaptability and marital satisfaction. In the case of the marriages in which the patient was not cured, there was a significant correlation between "responsibility" and the grade of global satisfaction of the marriage (r=0.44, p<0.05) (Table 5).

CONCLUSIONS

Our results indicate that personality factors act as mediator factors in the interaction between FEMD and marital dissatisfaction. Grade of "neuroticism" of the depressed patient has a negative association with levels of marital satisfaction, both at the onset of the depressive episode as well as at six months. In the first evaluation, the "neuroticism" factor seems to be associated more with the perception that the healthy spouse has of the relationship then with the view of the depressed patient per se in general. In the second evaluation, the "neuroticism" factor

Table 4 Correlations existing between personality factors and marital satisfaction in depressed patients whose Depressive Episode remitted at T2 (n=36)

FACTORS OF THE NEO-FFI	TOTAL DAS OF THE PATIENT		TOTAL DAS OF THE HEALTHY SPOUSE		MEAN DAS OF THE MATRIMONY	
	r	p	r	p	r	p
CRUDE						
Neuroticism	-0.18	0.29	-0.26	0.12	-0.24	0.15
Extraversion	-0.04	0.80	0.22	0.20	0.08	0.64
Openness	0.02	0.89	0.01	0.97	0.02	0.92
Agreeableness	0.10	0.55	0.16	0.35	0.14	0.41
Responsibility	0.19	0.26	0.14	0.41	0.19	0.27
ADJUSTED BY AGE AND GENDER OF THE PATIENT						
Neuroticism	-0.16	0.36	-0.30	0.09	-0.25	0.16
Extraversion	0.00	0.98	0.27	0.12	0.14	0.45
Openness	0.07	0.68	0.04	0.84	0.06	0.72
Agreeableness	0.15	0.39	0.19	0.29	0.19	0.29
Responsibility	0.17	0.34	0.11	0.53	0.16	0.36

r= Pearson correlation coefficient; Statistical analysis used: correlation coefficient (adjusted by age and gender in the second part of the table).

Table 5 Correlations between the personality factors and marital satisfaction in the patients whose Depressive Episode did not remit at T2 (n=23)

FACTORS OF THE NEO-FFI	TOTAL DAS OF THE PATIENT		TOTAL DAS OF THE HEALTHY SPOUSE		MEAN DAS OF THE MATRIMONY	
	r	p	r	p	r	p
CRUDE						
Neuroticism	-0.24	0.27	-0.04	0.85	-0.17	0.43
Extraversion	-0.26	0.24	-0.35	0.10	-0.35	0.11
Openness	**0.48**	**0.03**	0.24	0.26	**0.41**	**0.05**
Agreeableness	0.28	0.19	0.34	0.12	0.36	0.10
Responsibility	0.40	0.06	0.36	0.09	**0.44**	**0.03**
ADJUSTED BY AGE AND GENDER OF THE PATIENT						
Neuroticism	-0.20	0.40	-0.09	0.71	-0.15	0.50
Extraversion	-0.21	0.36	-0.32	0.16	-0.29	0.20
Openness	**0.48**	**0.03**	0.29	0.20	**0.45**	**0.04**
Agreeableness	0.32	0.16	0.30	0.19	0.35	0.12
Responsibility	0.39	0.08	0.39	0.08	**0.44**	**0.05**

r= Pearson correlation coefficient; the score with a significant of $p \leq 0.05$ are shown in bold. Statistical analysis used: correlation coefficient (adjusted by age and gender in the second part of the table).

is associated with the perception that both couples have and with the episode course. Although the levels of association are moderate, the clinical importance of the neuroticism is based on firm evidence in the scientific literature.[11] In the marriages in which the episode did not remit, the grade of the factors of "responsibility," "openness" and "extroversion" in the case of the patient were associated with the evaluation that both spouses had of their marital relation. On the contrary, in those cases in which the patient had overcome the disease, their personality traits did not seem to have any influence.

Along the line of our results, previous researchers[32] have confirmed that elevated levels of "neuroticism" (sensitivity, emotionality, willingness to experience feelings of anger) are associated more with marital discontent in general and specifically with dissatisfaction of the nondepressed spouse, already at the time itself of the diagnosis of the depressive episode. Consequently, the permanent tendency of the depressed spouse to experience negative emotional states could have a greater impact on the satisfaction of the nondepressed spouse then on his/her own satisfaction. In fact, Coyne, et al.[33] demonstrated that the individuals who live with a depressed spouse received the load of the symptoms of sad patient and this load explains the deterioration of his/her own malaise.

Previous investigations have also demonstrated that personality factors play an important role in the course of the association between marital satisfaction and *depressive symptoms.*[34] However, we are unaware of previous studies that show this relation in a sample of individuals diagnosed of Major Depression. Thus, our study extends the knowledge in this field to a nosological entity and not only to depressive symptoms, a probably milder situation than that of the disorder established.

The influence of factors associated to greater satisfaction even when the FEMD persists has also not been widely studied. Previous literature suggests that the personality traits referred by the patient did not vary after a typical episode of Mayor Depression,[35] although evidence has been found that the condition of clinical depression largely affects the evaluation of some personality factors such as "extroversion" and "neuroticism."[36] Other results have identified these two factors as markers of state during the depressive episode.[37] In all, the importance of the personality factors of "responsibility" (being conscientious and prudent, with elements as personal discipline, care and being meticulous, organization) and "openness (which implies preference for the variety and intellectual curiosity, active imagination, esthetic sensitivity, attention to one's own feelings) arise as up to now unknown mediators in the relation between FEMD and marital dissatisfaction. Six months after the diagnosis, the persistence of FEMD, being depressed but having intellectual curiosity, being careful or having a high grade of personal discipline could be a protective factor in the marital interaction. Furthermore, it is possible that once the principal depressive symptoms such as anhedonia or low mood state have disappeared, marital adaptation will be related with other factors such as communication skills, attraction, affective, socioeconomic context, similarity of objectives and interests or sexual activity, more than with personality factors.

In relation with the prediction of the course of FEMB, our results also show that less marital satisfaction, greater severity of the symptoms or greater level of "neuroticism" at the time of the diagnosis are factors that are associated to its negative evolution, 47.5% of the variability of FEMD being explained by our statistical model.

For practical effects, we consider that there are clinical implications and applicability of these findings. Our results suggest that a successful intervention focused on the personality factors may lessen marital dissatisfaction in marriages with a persistently depressed spouse. For example, therapy directed at improving self-discipline, meticulousness, being more careful, organized, promoting the esthetic sensitivity, attention to one's own feelings, preference for variety and intellectual curiosity, contributes to having a positive relation even if the depressive episode does not remit. Thus, it would be necessary to design specific interventions that would approach these factors.

It is recommendable to carry out more studies that determine if these mediators also affect the more severe, chronic or recurrent depressive episodes. In addition, it would be fundamental to evaluate the individuals before the initiation of the depressive treatment and to analyze if there are characteristics in the marital relation or in the personality that are related with the initiation of the disorder. Presumably, some marriages could develop behaviors (communication patterns or conflict solving patterns) that could lead to a Major Depression.

In conclusion, this study shows that "neuroticism" is the most important personality factor as mediator in the association between Major Depression and marital dissatisfaction, even at the time of the diagnosis of the affective disorder. Six months after the diagnosis, the remission of the episode determines if the personality factors continue to explain this relation.

LIMITATIONS

One of the limitations of this study would be the reduced number of martial couples who formed a part of it since, consequently, the power to detect differences is

limited and the correlation coefficients we present have moderate values. Furthermore, a follow-up period of six months could be too short to identify certain changes. However, some experts[38] have suggested that the optimum time to observe the effect of marital dissatisfaction on the depressions could be considerably less than one year. Finally, as already mentioned, Major Depression could affect the evaluation of the personality characteristics.

REFERENCES

1. Whisman MA, Kaiser R. Marriage and relationship issues. En Dobson KS, Dozois DJA, eds. Risk factors in depression. San Diego: Academic Press, 2008; p. 363–84.
2. Horneffer KJ, Fincham FD. Construct of attributional style in depression and marital distress. J Fam Psychol. 1995;9:186-95.
3. Whitton SW, Whisman MA. Relationship satisfaction instability and depression. J Fam Psychol. 2010;24:791–94. doi: 10.1037/a0021734.
4. Whisman M, Bruce ML. Marital distress and incidence of major depressive episode in a community sample. J Abnorm Psychology. 1999;108:674–78.
5. Beach SR, O'Leary KD. Marital discord and dysphoria: For whom does the marital relationship predict depressive symptomatology? J Soc Pers Relat. 1993;10:405–20.
6. Benazon NR, Coyne JC. Living with a depressed spouse. J Fam Psychol. 2000;14(1):71-9.
7. Whisman MA, Uebelacker LA. Prospective associations between marital discord and depressive symptoms in middle-aged and older adults. Psychol Aging, 2009;24:184–9.
8. Whisman M. The Association between Depression and Marital Dissatisfaction. En: Beach SR, ed. Marital and family processes in depression: A scientific foundation for clinical practice. Washington, DC: American Psychological Association, 2001; p. 3–24.
9. Proulx CM, Buehler C, Helms H. Moderators of the link between marital hostility and change in spouses' depressive symptoms. J Fam Psychol. 2009;23:540–50.
10. Fink BC, Shapiro AF. Coping Mediates the Association Between Marital Instability and Depression, but Not Marital Satisfaction and Depression. Couple and Family Psychology: Research and Practice. 2013;2(1):1–13.
11. Klein DN, Kotov R, Bufferd SJ. Personality and depression: explanatory models and review of the evidence. Annu Rev Clin Psychol. 2011;7:269-95.
12. Ilardi SS, Craighead WE, Evans DD. Modeling relapse in unipolar depression: The effects of dysfunctional cognitions and personality disorders. J Consult Clin Psychol. 1997;65:381–91.
13. Coyne JC, Whiffen VE. Issues in personality as diasthesis for depression: The case of sociotropy/dependency and autonomy/self-criticism. Psychol Bull. 1995;118:358–78.
14. Kelly E, Conley J. Personality and compatibility: a prospective analysis of marital stability and marital satisfaction. J Pers Soc Psychol. 1987;52:27–40.
15. Davila J, Karney BR, Hall TW, Bradbury TN. Depressive symptoms and marital satisfaction: Within-Subject Association and the Moderating Effects of Gender and Neuroticism. J Fam Psychol. 2003;17(4):557–70.
16. Miller IW, McDermut W, Gordon KC, Keitner GI, Ryan CE, Norman W. Personality and Family Functioning in Families of Depressed Patients. J Abnorm Psychol. 2000;109:539–45.
17. Beach SR, Fincham FD. Toward an integrated model of negative affectivity in marriage. En: Johnson SM, Greenberg LS, eds. The heart of the matter: Perspectives on emotion in marital therapy. New York, NY: Brunner/Mazel, 1994; p. 257–87.
18. Lavee Y, Ben-Ari A. Emotional expressiveness and neuroticism: do they predict marital quality? J Fam Psychol. 2004;18(4):620-7.
19. Karney BR, Bradbury TN. Neuroticism, marital interaction, and the trajectory of marital satisfaction. J Pers Soc Psychol. 1997;72:1075–92.
20. Kendler KS, Neale MC, Kessler RC, Heath AC, Eaves LJ. A longitudinal twin study of personality and major depression in women. Arch Gen Psychiatry. 1993;50(11):853–62.
21. Moyá J, Cano A, Seva A, Alonso A. The impact a first episode of major depression has on marital dissatisfaction: Is remission associated with improvement in dissatisfaction? Eur J Psychiat. 2010;24(1):46–58.
22. Eremenco SL. The functional assessment of chronic illness therapy (FACIT) multilingual translations project. En: Proceedings of the 39th annual conference of the American Translators Association, 1998; pp. 141–7.
23. Bonomi AE, Cella DF, Hahn EA, Bjordal K, Sperner-Unterweger B, Gangeri L, et al. Multilingual translation of the functional assessment of cancer therapy (FACT) quality of life measurement system. Qual Life Res. 1996;5:309–20.
24. Wild D, Grove A, Martin M, Eremenco S, McElroy S, Verjee-Lorenz A, et al. Principles of good practice for the translation and cultural adaptation process for patient-reported outcomes (PRO) measures: report of the ISPOR task force for translation and cultural adaptation. Value Health. 2005;8:94–104.
25. First MB, Spitzer RL, Gibbon M, Williams JB. Structured Clinical Interview for the DSM-IV Axis I Disorders (SCID-I) research version. New York: New York State Psychiatric Institute, 1996.
26. Hamilton M. A rating scale for depression. J Neurol Neurosurg Psychiatry. 1960;23:56–62.
27. Spanier GB. Measuring dyadic adjustment: New scales for assessing the quality of marriage. J Marriage Fam. 1976;38:15–28.
28. McCrae RR, Costa PT. A contemplated revision of the NEO Five-Factor Inventory. Pers Individ Dif. 2004;36(3):587–96.
29. Ball D, Hill L, Freeman B, Eley TC, Strelau J, Riemann R, et al. The serotonin transporter gene and peer-rated neuroticism. NeuroReport. 1997;8(5):1301–4.
30. Jain U, Blais MA, Otto MW, Hirshfeld DR, Sachs GS. Five-

factor personality traits in patients with seasonal depression: treatment effects and comparisons with bipolar patients. J Affect Disord. 1999;55(1):51–4.
31. Alnaes R, Torgersen S. Personality and personality disorders predict development and relapses of major depression. Acta Psychiatr Scand. 1997;95(4):336–42.
32. Bolger N, Zuckerman A. A framework for studying personality in the stress process. J Pers Soc Psychol. 1995;69(5):890–902.
33. Coyne JC, Kessler RC, Tal M, Turnbull J, Wortman CB, Greden JF. Living with a depressed person. J Consult Clin Psychol. 1987;55:347–52.
34. Karney BR. Depressive symptoms and marital satisfaction in the early years of marriage: Narrowing the gap between the Gap between Theory and Research. En: Beach SR, ed. Marital and family processes in depression: A scientific foundation for clinical practice. Washington, DC: American Psychological Association, 2001; p. 45–67.
35. Shea MT, Leon AC, Mueller TI, Solomon DA, Warshaw MG, Keller MB. Am J Psychiatry. 1996;153(11):1404–10.
36. Hirschfeld RM, Klerman GL, Clayton PJ, Keller MB, McDonald-Scott P, Larkin BH. Assessing personality: effects of the depressive state on trait measurement. Am J Psychiatry. 1983;140(6):695–9.
37. Griens AM, Jonker K, Spinhoven P, Blom MB. The influence of depressive state features on trait measurement. J Affect Disord. 2002;70(1):95–9.
38. Fincham FD, Beach SR, Harold GT. Marital satisfaction and depression: Different causal relationships for men and women? Psychol Sci. 1997;8:351–7.