

## Factor Structure of the STAXI-2-AX and its Relationship to Burnout in Housewives

José Moral de la Rubia, Mónica Teresa González Ramírez  
and René Landero Hernández

Universidad Autónoma de Nuevo León (Mexico)

This study was conducted in order to determine factor structure and reliability of STAXI-2-AX/EX (Spielberger, 1999) and to calculate the correlation between STAXI-2-AX/EX and the Housewives Burnout Questionnaire (CUBAC). The study sample included 226 housewives. Dimensional structure was estimated using exploratory and confirmatory factor analysis. Factor analysis results of STAXI-2-AX/EX showed that a four related factors model had an adequate goodness of fit, eliminating three items. Regarding the CUBAC, a two related factors structure presented the best goodness of fit, which improve if five items were eliminated. Finally, as we expected, the correlation between the two scales was positive ( $r = .38$ ). We suggest that this study should be replicated in other countries.

*Keywords:* anger, burnout, factor structure, concurrent validity, housewives.

Los objetivos de este estudio eran determinar la estructura factorial y consistencia interna del STAXI-2-AX/EX de Spielberger (1999) y calcular su correlación con el Cuestionario de Burnout para Amas de Casa (CUBAC). Se trabajó con una muestra de 226 amas de casa. La estructura dimensional se determinó por análisis factorial exploratorio y confirmatorio. El modelo de 4 factores relacionados mostró una bondad de ajuste adecuada para el STAXI-2-AX/EX, aunque se eliminaron 3 ítems. Analizado los 21 ítems del CUBAC, una estructura de dos factores relacionados presentó la mejor bondad de ajuste, mejorando si se eliminaban 5 ítems. Como se esperaba las dos escalas tenían correlación directa ( $r = .38$ ). Se sugiere replicar el estudio en otros países.

*Palabras clave:* ira, agotamiento laboral, estructura factorial, validez concurrente, amas de casa.

Anger is a negative emotional state. It may emerge as a reaction to vulnerability before a threat, coercion or damage received, regardless of whether it is real or imaginary. Feeling pain or evaluating a situation as offensive, unfair or prejudicial is a key aspect to experience anger. It is characterized by discomfort and activation, with the tendency to attack in an offensive or hurtful situation. Anger may be externally expressed as an aggressive behavior toward others, or it may be kept without expressing it. Its intensity is variable, as well as the level of consciousness and control the subject reaches over the anger. If this is intense and prolonged over the period of time, either consciously or unconsciously, it will have effects on the health, through a sympathetic hyperactivity, creating symptoms such as hypertension and irritable bowel syndrome (Moral, 2008; Spielberger, Reheiser & Sydeman, 1995). The evitative coping of vital stress factors, especially loss of loved ones or tied relations, in addition to persistency of negative emotional states of depression, unhelplessness, resentment or anger have been associated with breast cancer in women (Cardenal, Ortiz-Tallo & Martin, 2008).

There are different anger measures. One of the most common is The State Trait Anger Expression Inventory (STAXI). In its reviewed form, the STAXI-2 distinguishes: state, trait and four aspects of anger expression (internalizing, externalizing, external control and internal control) (Spielberger, 1999). Anger has been clearly related to burnout syndrome (Maslach & Leiter, 1997), and interventions have even been developed to mitigate it, either in the early or advanced stages of the syndrome (Perez-Nieto, Cano-Vindel, Sayalero, Camuñas, Miguel-Tobal et al., 2001). Smets, Visser, Oort, Schaufeli & de Haes (2004) propose that burnout syndrome appears as a consequence of lack of justice or reciprocity between investments and results that are at risk during a labor interaction. This situation, first, implies an anger state that becomes chronic and later results in exhaustion and unhelplessness.

Burnout syndrome is a state of physical, emotional and mental exhaustion, caused by becoming involved in emotionally demanding situations, during a long period of time, with few or negative achievements, insufficient resources and feedback (Pines, 1993). The term was coined by Freudenberger in 1974, and the English word "burnout" is usually used even in other languages. In specialized literature, it is also denominated "Thomas' syndrome," with the name taken from the character of the novel "*The unbearable lightness of being*", by Czech writer Kundera (Meeroff, 1997). At the beginning, the concept was applied to health professionals and social services workers (Farrerons-Noguera & Calvo-Frances, 2008; Roman, 2007), but currently it is applied to all professions, including teachers (Moreno, Beltran, Aldrete, Flores & Radillo, 2006) and students (González & Landero, 2007).

The first approaches distinguished two dimensions: emotional exhaustion and depersonalization (Pines & Maslach, 1980). A third dimension, the lack of personal accomplishment, was later added (Maslach & Jackson, 1981). This three-dimensional model has been criticized since it is essentially based on the very general emotional exhaustion factor, in addition to ignoring cognitive components. As an alternative, there are process models that distinguish: precursory characteristics, nuclear core symptoms and consequences from the syndrome (Dierendock, Schaufeli & Buunk, 2001; Jackson, Schwab & Schuler, 1986). In this context, it has been developed the Burnout Brief Questionnaire (CBB, in Spanish) by Moreno-Jimenez, Bustos, Matallana & Miralles (1997). The CBB is composed of 21 items theoretically organized into three blocks. The first block integrates risk factors that are antecedents of the syndrome: characteristics of the tasks (no reinforcement) and the organization (lack of support and excessive demand), as well as tedium (monotony and repetition). The second block integrates nuclear characteristics of the syndrome taken from Maslach & Jackson (1981), which include emotional exhaustion, depersonalization and lack of personal accomplishment. Finally, the third block picked up three consequences of the syndrome on health, familiar environment and labor performance. The questionnaire has a format applicable to different professional contexts; nonetheless, to be used with housewives, it required an adaptation for each of the 21 items. In response, the Housewives Burnout Questionnaire (CUBAC, abbreviation in Spanish) was created by González, Landero & Moral (2009). In the adaptation process and the study of psychometric properties for the CUBAC, González et al. (2009) contrasted a sequential structural model that included antecedents, burnout syndrome and consequences, where antecedents and the syndrome were manifest variables: the first, exogenous and the second, endogenous; and the three consequences were indicators from an endogenous latent variable. The goodness-of-fit indices showed adequate values ( $\chi^2/df = 2.03$ ,  $GFI = .98$ ;  $AGFI = .94$ ;  $RMSEA = .07$ ). Antecedents explained 58.4% of syndrome variance, and this explained the 85.7% of consequences variance. Moreover, one-dimensional structures were contrasted for each of the three scales comprising the questionnaire and also it was obtained adequate goodness-of-fit indices. However, it was not explored the dimensions of the CUBAC 21 items whole.

Regarding process models, Dierendock, Schaufeli & Buunk (2001) proposal can be emphasized. In view of labor stressors that the worker is not capable of coping, and emotional exhaustion feelings begin, making the person feels tired when contacting other people. Such exhaustion leads to depersonalization and to a feeling of poor personal accomplishment. In this model, emotional burnout can be seen as a stress and depersonalization

as a way to cope it, tending the person to develop little empathetic attitudes to others, what frequently entails feelings of lack of accomplishment in work. In the last phase of the syndrome, personal accomplishment is lost, leading to an helplessness affecting health.

The objectives of this work were (1) to contrast the four related factors structure (internalization, externalization, internal anger control and external anger control) and to estimate internal consistency ( $\alpha > .75$ ) from the STAXI-2 anger expression scale (AX) in a sample of housewives; (2) to determine factor structure of the CUBAC, analyzing the whole of its 21 items, and (3) to calculate the correlation between the two scales and their factors. A three related factors structure for the CUBAC (antecedents, syndrome symptoms and consequences) is expected, along with a direct and moderate association between STAXI-2-AX and CUBAC.

The determination of the dimensional structure of burnout syndrome in housewives and its relation to anger could open new lines of intervention in this population that are frequently ignored by researchers, and for which the models developed with other labor populations could not be well fitted as, for example, the Dierendock et al. (2001) competences model.

### Method

This is a correlation study with a non experimental transversal type design that employs a non probabilistic sample of voluntary subjects.

### Participants

Inclusion criteria were: housewives from 18 to 65 years old. Exclusion criteria were: women who do not know to read or to write or if they show any cognitive dysfunction that makes difficult reading with an appropriate comprehension level or writing with the necessary motor coordination. All the categories of civil status were included as well as those women who had their own incomes, such as mail-order catalogue selling, social security benefits or pensions.

We worked on a sample of 226 women dedicated to work at home. The 91% did not have their own incomes, and 9% had incomes by mail-order catalogue selling, social security benefits or pensions. The 87% of inquired women was married, 4% single, 3% divorced, 2% cohabitating, and 1% separated. Contingency between civil state and having or not incomes was significant ( $\chi^2_{(5, N=222)} = .52, p < .01$ ), but association was weak ( $CC = .28, p < .01$ ). Separated women were those having the highest own incomes (66%, 2 de 3) and were followed in order of incomes by those that were divorced (28%, 2 of 7); single (20%, 2 of 10), and married (7%, 14 of 193). Average age was 43.75 years

old, with a standard deviation of 9.61 years, varying, from 19 to 64 years old. There was no difference in age mean between women with different civil states ( $F_{(5, 219)} = 1.78, p = .12$ ). The 85% declared that their socio-economical status was middle-middle; 5% middle-high; 5% middle-low; 4% low and 1% high. The 96% had children varying from 1 to 7 and with an average of three children. The 70% of single women and 1% of married housewives did not have children. All the singles lived with their blood relatives, where they were in charge of the house and care of children and old persons. Average years of schooling were 11.18, with a standard deviation of 3.78 years. In the retest application, which was carried out two or four weeks later, only 90 women participated, which was 40% of the initial sample.

### Measuring instruments

The Housewives Burnout Questionnaire (CUBAC) by González et al. (2009) was adapted from the Burnout Brief Questionnaire (CBB) by Moreno-Jimenez et al. (1997). It is composed 21 items that are rated on a five-point Likert-type scale from 1 (never) to 5 (most of the time), organized in three scales: risky or precursory characteristics (9 items: 2, 4, 6, 8, 9, 10, 14, 16 and 20); syndrome (9 items: 1, 3, 5, 7, 11, 12, 15, 18 and 19) and syndrome consequences (3 items: 13, 17 and 21). Five items are negatively keyed (2, 4, 8, 9 and 16).

The Anger Expression (AX/EX) Scale of the State Trait Anger Expression Inventory, second edition (STAXI-2) developed by Spielberger (1999) and translated into Spanish by Miguel-Tobal, Casado, Cano-Vindel & Spielberger (2001). It is shaped into 24 items that are rated on a four-point Likert-type scale from 1 (not at all) to 4 (very much). It provides a general index of how frequent anger is manifested (AX/EX). This scale is divided into four subscales of six items subscales: Anger Control-Out (AC-O) (1, 5, 8, 11, 16 and 18) that evaluates the frequency with which a subject controls the external expression of anger; Anger Control-In (AC-I) (19, 20, 21, 22, 23 and 24) that evaluates maneuvers of internal control taken by the subject; Anger-Out (AX-O) (2, 4, 6, 9, 13, 15) that evaluates frequency a subject manifests anger with respect to other subjects or objects; and Anger-In (AX-I) (3, 7, 10, 12, 14 and 17) that evaluates the frequency with which anger feelings are consciously hidden from view of others. The Anger expression (AX/EX) score is obtained by adding the Anger-In and Anger-Out scales, adding a constant of 32, and subtracting the Anger Control-Out and Anger Control-In scales. In this way, AX/EX index varies from 0 to 68. In the American sample of 1,900 subjects, the internal consistency of the subscales varied from  $\alpha = .82$  to  $\alpha = .75$  (Spielberger, 1999).

## Procedures

The sample was obtained with the participation of bachelor students. We requested to these students, who took research and methodology subjects, to apply a survey to housewives, who were not their relatives, but were easily accessible for them. Consent and name were requested after being informed about the survey, and they were then asked if they wanted to participate in a second application, two to four weeks later. The students were awarded with two extra points, but there was no payment given to the surveyed women. In the first survey, three scales were applied: the CUBAC, the STAXI-2-AX and the Perceived Stress Scale (PSS); and in the second, only the CUBAC was used. The PSS results are not reported in this work, but it appear in an article by Gonzalez et al. (2009). All the data were treated confidentiality and in compliance with APA ethical standards.

## Statistical analysis

In order to determine scales dimensional structure, both exploratory (EFA) and confirmatory (CFA) factor analysis were used. Exploratory analysis was carried out by Principal Components Analysis (PCA), rotating component matrix by an oblique method (Promax). Confirmatory factor analysis was carried out by Maximum Likelihood, factorizing from correlation matrix to contrast correlated factors and independent residuals models. Twelve goodness-of-fit indices were evaluated; their interpretation is stated in Tables 2 and 5 (Moral, 2006). Cronbach's alpha coefficient ( $\alpha$ ) was used to calculate internal consistency, and Pearson's linear correlation between the two applications ( $r_{112}$ ) was used to calculate temporary stability. Distribution adjustments to a normal curve were tested using the Kolmogorov-Smirnov test ( $Z_{K-S}$ ). Pearson's linear correlation ( $r$ ) was used to estimate concurrent validity. Statistical calculations were conducting using SPSS16, excepting CFA that was made using STATISTICS 7.

## Results

### STAXI-2-AX factor structure and reliability

Based on Kaiser's criterion, six factors that explain 60% of the total variance are obtained. When forcing the solution to four factors, 53% of the total variance is explained. The first component is defined by the six items of the Anger Control-In subscale (19, 20, 21, 22, 23 and 24), and the second component by the six items of the Anger Control-Out subscale (1, 5, 8, 11, 16 and 18). Third component is constituted by the six items of the Anger-Out subscale (2, 4, 6, 9, 13 and 15); moreover, one

Anger-In item shows negative load (17: *I avoid facing what makes me feel angry*); and the forth component by five items of Anger-In subscale (3, 7, 10, 12 and 14) (see Table 1). The internal consistency of the Anger Control-In first component 6 items is high ( $\alpha = .88$ ), as well as of Anger Control-Out second component six items ( $\alpha = .86$ ). The internal consistency of 6 items of Anger-Out component is high ( $\alpha = .74$ ), but if item 17 is added (with its inverted scores), value of coefficient alpha decreases ( $\alpha = .68$ ), that is why it would be better to exclude it. The internal consistency of the Anger-In component 5 items is low ( $\alpha = .60$ ), and gets worse if item 17 is added ( $\alpha = .52$ ); on the contrary, if item 3 ( $\alpha = .62$ ) and item 10 ( $\alpha = .66$ ) are eliminated, it improves and reaches an acceptable level. That is the reason these two ones are also excluded. The internal consistency of selected 20 items is high ( $\alpha = .89$ ), if the items corresponding to two control factors are reverse-scored (see Table 6). The correlation between Anger-Out and Control-Out components is moderate ( $r = -.59$ ), as well as between Control-In and Control-Out ( $r = .49$ ), and Control-In and Anger-Out ( $r = -.33$ ). Anger-In component is independent from Control-In ( $r = .01$ ), and it has a weak relation regarding Control-Out ( $r = -.20$ ) and Anger-Out ( $r = .19$ ).

The 4 related factors model is contrasted by CFA (ML), excluding the item 17 and considering the Anger-In and Control-Out as independent factors (4F-23). Indexes show an appropriate fit that improve slightly if Anger-In factor is reduced to either four (without items 3 and 17) (4F-22), or three indicators (without 3, 10 and 17) (4F-21) (see Table 2). By the chi-square difference test, the fit values are differential between 4F-23 and 4F-21 ( $\chi^2 = 349.23 - 290.97 = 58.26$ ,  $df = 225 - 184 = 41$ ,  $p = .04$ ), but is equivalent between 4F-22 and 4F-21 ( $\chi^2 = 319.77 - 290.97 = 28.80$ ,  $df = 204 - 184 = 20$ ,  $p = .09$ ).

By EFA (PCA and Promax rotation), eliminated items 3, 10 and 17, based on Kaiser's criterion, a four related components structure is reproduced with saturations higher than .45 in all items: Anger Control-In (19, 20, 21, 22, 23 and 24), Control-Out (1, 5, 8, 11, 16 and 18), Anger-Out (2, 4, 6, 9, 13 and 15) and Anger-In (7, 12 and 14), explaining the 58.3% of total variance. Correlation between components have the same sign as in four components solution with 24 items, but with slightly higher values, remaining the Anger-In independent from the Control-In. However, if item 10 is kept (*I harbor grudges without telling*) when rotating by Promax method, this has a higher factor loading ( $< .40$ ) in Anger-Out factor (.36) than in Anger-In (.34) in pattern matrix. Moreover, total variance explained decreases (56.5%), final communality of item is lower than .30 (.28) and its elimination increases the coefficient  $\alpha$  of the subscale (from .62 to .66); that is why it is better to eliminate it.

Table 1  
*Pattern and structure matrices of a 4-factors model for the STAXI-2-AX/EX*

Items	Pattern matrix				Structure matrix			
	1	2	3	4	1	2	3	4
1. Control my temper.	-.07	.86	-.01	.03	.36	.83	-.49	-.15
2. I express my anger.	.18	-.01	.76	-.17	-.08	-.34	.68	-.02
3. I keep thing in	-.11	.16	-.19	.57	.04	.10	-.13	.50
4. I make sarcastic remarks.	.10	-.11	.54	.24	-.12	-.43	.62	.37
5. I keep my cool.	-.01	.84	.06	-.04	.38	.81	-.44	-.20
6. I make things as slamming the door	-.03	-.01	.51	.17	-.20	-.36	.56	.27
7. I boil inside, but I hide it.	-.01	.11	.01	.79	.06	-.06	.10	.77
8. I control my behavior.	-.06	.91	.13	.01	.34	.80	-.38	-.14
9. I argue with others	-.01	.19	.78	.00	-.18	-.28	.68	.11
10. I harbor grudges without telling	.17	-.11	.24	.36	.04	-.24	.32	.43
11. I keep calm and do not fly off the handle	.10	.78	.09	.01	.45	.77	-.40	-.13
12. I am angrier than admit.	.03	-.11	.01	.66	-.02	-.23	.19	.68
13. I can say nasty things.	.11	-.14	.61	.11	-.16	-.47	.68	.25
14. I feel more irritated than people know.	-.17	.01	.18	.62	-.22	-.31	.35	.66
15. I let temper ease off	-.16	-.22	.43	.08	-.40	-.56	.63	.20
16. I control my anger feelings	.25	.51	-.17	.14	.56	.70	-.52	.01
17. I avoid facing what makes me feel angry.	.23	-.33	-.51	.25	.24	.03	-.34	.22
18. I stop myself from losing temper.	.23	.41	-.25	.14	.51	.64	-.54	.01
19. I respite profoundly to relax	.67	.19	-.09	-.01	.79	.57	-.43	-.05
20. I make things as counting until ten.	.69	-.03	-.18	.06	.73	.40	-.38	.04
21. I try to relax.	.76	.09	.01	-.03	.80	.45	-.30	-.03
22. I do something quiet to calm down	.92	-.08	.14	-.10	.83	.30	-.13	-.04
23. I try to distract myself to simmer down	.79	.01	.12	.03	.76	.32	-.14	.06
24. I think something pleasant to calm down.	.82	-.01	.09	-.06	.78	.34	-.18	-.03

Extraction method: Principal Component Analysis. Rotation method: Promax with Kaiser normalization. Rotation converged in 6 iterations.

### *CUBAC factor structure and reliability, analyzed from its 21 items*

Based on Kaiser's criterion (eigenvalues over 1), four components that explain the 60.7% of total variance are defined. Nonetheless, the last component is defined only by an item with saturation higher than .40 in the rotated component matrix. Due to its interpretability and based on number of factors looked for; three components can be defined for explaining the 55.7% of total variance.

When rotating component matrix by Promax method, the first component is defined by nine items (1, 5, 6, 7, 15, 18, 19, 20 and 21) that reflect boredom, lack of self-accomplishment and low performance. It contains six items from nine of the burnout syndrome original factor related to tiredness, exhaustion and negative affect (1, 5, 7, 15, 18 and 19); two from the antecedents original factor which indicate boredom and lack of interest (6 and 20) and the consequence related to low performance (21). The second component is defined by eight items (3, 4, 8, 10, 11, 12, 13 and 17) that reflect burnout syndrome characteristics (3, 11 and 12) and precursory factors related to lack of support

(4, 8 and 10) and consequences on health (13) and personal relations (17). The third component is defined by four items (2, 9, 14 and 16) that reflect antecedent aspects associated with role identification and satisfaction with relationship in and out of familial core (2, 9 and 16), recognizing work is monotonous (14). It must be mentioned this third factor is composed of half of negatively keyed items (3 from 6 reversed items) (see Table 3). The two first components represent a moderate correlation ( $r_{12} = .60$ ), but low with the third one ( $r_{13} = -.29$  y  $r_{23} = -.31$ , respectively). The two first components share the items of consequences (13, 17 and 21), and exhaustion feeling due to home tasks (15). Internal consistency of two first components is high ( $\alpha = .89$  and  $\alpha = .84$ , respectively), but is low the one for third component ( $\alpha = .41$ ). If item 14 (*my job is repetitive*) is eliminated from third component, its internal consistency is acceptable ( $\alpha = .67$ ); therefore, it would be interpreted as a protecting elements factor, or as good role adjustment with familial environment and relationships satisfact.

Based on Catell's criterion (inflection point of eigenvalue scree plot), two components may be defined for explaining the 48.8% of the total variance (see Figure 1).

Table 2  
 Goodness-of-fit indices of 3 models of 4 correlated factors for the STAXI-2-AX/EX

Indices	Interpretation		Models		
	Good	Bad	4F-23	4F-22	4F-21
Iterations			8	8	7
<i>Basic summary statistics</i>					
<i>DF</i>	≤ 2	> 3	1.77	1.60	1.45
ML $\chi^2$			349.23	319.77	290.97
<i>df</i>			225	204	184
<i>p</i>	≥ .05	< .01	.00	.00	.000
ML $\chi^2/df$	≤ 2	>3	1.55	1.57	1.58
<i>RMS SR</i>	≤ .05	> .09	.07	.07	.07
<i>Non-centrality fit indices</i>					
<i>PNCP</i>	≤ 1	> 2	.58	.52	.49
<i>RMS EA</i>	≤ .05	> .09	.05	.05	.05
<i>GPI</i>	≥ .95	< .85	.95	.96	.96
<i>AGPI</i>	≥ .90	< .80	.94	.94	.94
<i>Single sample fit indices</i>					
<i>GFI</i>	≥ .95	< .85	.87	.88	.88
<i>AGFI</i>	≥ .90	< .80	.84	.85	.85
<i>NFI</i>	≥ .95	< .85	.81	.83	.84
<i>NNFI</i>	≥ .95	< .85	.91	.92	.92
<i>CFI</i>	≥ .95	< .85	.92	.93	.93
$\Delta$	≥ .95	< .85	.92	.93	.93

Models: 4F-23: Anger Control-In (AC-I) (19, 20, 21, 22, 23 and 24), Anger Control-Out (AC-O) (1, 5, 8, 11, 16 and 18), Anger-Out (AX-O) (2, 4, 6, 9, 13 and 15) and Anger-In (AX-I) (3, 7, 10, 12 and 14). All the factors are correlated, with exception of AC-I and AX-I. The residuals are independent.

4F-22: AX-I is reduced to 4 indicators (7, 10, 12 and 14).

4F-21: AX-O is reduced to 3 indicators (7, 12 and 14).

Fit indices: *DF*: Discrepancy Function, ML $\chi^2$ : Chi-Square, *df*: Degrees of Freedom, *p*: Probability of ML  $\chi^2$ , *RMS SR*: Root Mean Square Standardized Residual, *PNCP*: Population Non-centrality Parameter, *RMS EA*: Steiger-Lind Root Mean Square Error of Approximation Index, *GPI*: Population Gamma Index, *AGPI*: Adjusted Population Gamma Index, *GFI*: Joreskog's Goodness Fit Index, *AGFI*: Joreskog's Adjusted Goodness Fit Index, *NFI*: Bentler-Bonett Normed Fit Index, *NNFI*: Bentler-Bonett Non-Normed Fit Index, *CFI*: Bentler's Comparative Fit Index and  $\Delta$ : Bollen's Delta.

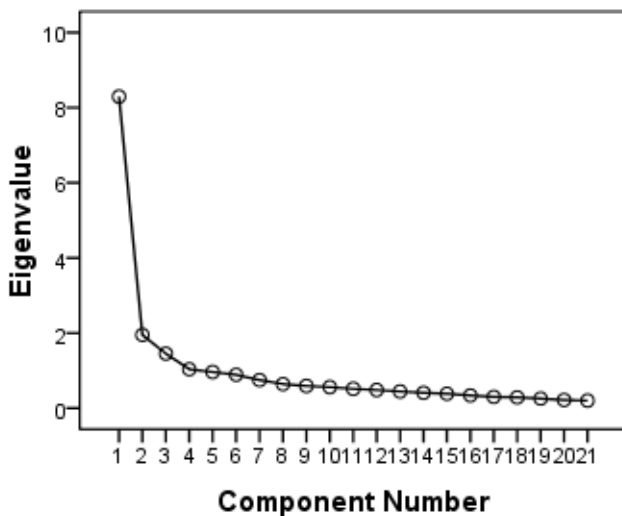


Figure 1. Eigenvalue scree plot (CUBAC-21)

When rotating by an oblique method (Promax), the 12 items first component contains six from burnout syndrome original factor related to tiredness, exhaustion and negative affect (1, 5, 7, 15, 18 and 19), three from antecedents original factor related to boredom and lack of interest (6, 14 and 20) and three consequences on health, relations and performance (13, 17 and 21). The second component has eight items, six from antecedents (2, 4, 8, 9, 10 and 16) and two syndrome characteristics (3 and 11) related to lack of support and recognition. Item 12 (*the interest in my professional or personal development is very poor*) would remain in a low factor weight, but with more loading in the first factor component (see Table 4). Both components' correlation are moderate and direct ( $r = .57$ ), and both have a high internal consistency ( $\alpha = .90$  and  $\alpha = .82$ , respectively).

Table 3  
*Pattern and structure matrices of a 3-factors model for the CUBAC-21*

Items	Pattern matrix			Structure matrix		
	1	2	3	1	2	3
1. In general, I am sick and tired of being a housewife	.68	.04	-.04	.71	.46	-.21
2. I feel identified myself with my housewife work.	-.43	.26	.62	-.41	-.19	.64
3. Frequently, my family is excessively demanding.	-.01	.67	-.03	.40	.67	-.24
4. My family supports the decisions I take as housewife.	.15	-.65	.34	-.31	-.66	.51
5. My work as a housewife shows slim personal challenges for me.	.60	-.21	.22	.43	.08	.15
6. My work as a housewife lacks in interest.	.78	-.10	-.21	.77	.43	-.36
7. When I am at home, I am in bad humor.	.69	.04	-.10	.74	.49	-.27
8. In my family, we help each other in doing housework.	.16	-.79	.05	-.32	-.71	.25
9. Personal relations I establish as housewife are gratifying for me.	-.02	-.33	.61	-.36	-.54	.72
10. My family underestimates the importance of my work.	.14	.68	-.07	.56	.78	-.31
11. There is little recognition from my for the effort I make for them.	-.08	.76	-.05	.39	.73	-.27
12. The interest in my professional or personal development is very poor.	.02	.54	.17	.30	.50	.00
13. I consider the work I do affects my personal health (headache, sleeplessness, etc.)	.36	.54	.20	.64	.69	-.04
14. My work is repetitive.	.42	.10	.65	.33	.15	.52
15. I am tired of my work as housewife.	.57	.35	.23	.73	.62	-.01
16. I like atmosphere and environment of my home.	-.13	-.15	.64	-.37	-.43	.72
17. My work as housewife is affecting my familial and personal relations.	.37	.44	-.02	.64	.67	-.24
18. I do housework mechanically, without love.	.76	.06	-.13	.82	.55	-.32
19. The work I do is far from what I would have wanted.	.77	.05	-.03	.81	.52	-.22
20. My work as housewife is boring.	.92	-.17	-.12	.85	.42	-.28
21. My housewife work problems make my performance lower.	.69	.19	.03	.80	.60	-.19

Extraction method: Principal Component Analysis. Rotation method: Promax with Kaiser normalization. Rotation converged in 6 iterations.

Based on CFA, a structural model of precursory symptoms, syndrome and consequences originally proposed by CBB authors (3FO-21), is the one showing the worst fit. The goodness-of-fit indices are appropriate for either three or two related factors models proposed from EFA, especially for definitions of factors reduced in indicators, eliminating one to two indicators per factor, those whose parameters are lower. By the chi-square difference test, the fit values are equivalent for three related factors models with 21 indicators (3FR-21), and 2 related factors with 20 indicators (2FR-20) ( $d\chi^2_{(17)} = 17.57$ ,  $p = .42$ ), but not for 3 factors models with 18 indicators (3FR-18) and two factors model with 16 indicators (2FR-16) ( $d\chi^2_{(29)} = 71.53$ ,  $p < .01$ ). The 2FR-16 model shows the best indexes (see Table 5). In this way, it would be possible to choose this last one.

The original model with a strong indicators reduction (3FO-11) shows some goodness-of-fit indices from good ( $DF = .56$ ,  $RMS SR = .05$ ,  $PNCP = .39$ ) to appropriate ( $\chi^2/df = 2.84$ ,  $RSM EA = .09$ ,  $GPI = .93$ ,  $APGI = .89$ ,  $GFI = .90$ ,  $AGFI = .84$ ,  $NFI = .91$ ,  $NNFI = .92$ ,  $CFI = .94$ ), remaining the precursory symptoms factor reduced to three indicators (6, 10 and 20); the syndrome factor, to five indicators (1, 7, 15, 18 and 19); and the consequence factor, to three (13, 17 and 21) (see Table 5). The internal consistencies of two factors are high ( $\alpha = .76$  for three items of the first one,  $\alpha = .84$  for five of the second, and  $\alpha = .78$  for three of the third one), as well as the one of the eleven items selected ( $\alpha = .92$ ). Nevertheless, correlation between the two first factors is perfect, which would indicate that in reality they are only one; likewise, third factor correlations are very high. When eleven

Table 4

*Rotated component matrix and pattern and structure matrices of a two-factors model for the CUBAC-21*

Items	Orthogonal		Oblique rotation			
	Components		Pattern matrix		Structure matrix	
	1	2	1	2	1	2
1. In general, I am sick and tired of being a housewife	.64	.30	.65	.09	.70	.46
2. I feel identified myself with my housewife work.	-.19	-.43	-.08	-.42	-.32	-.47
3. Frequently, my family is excessively demanding.	.27	.55	.14	.53	.44	.61
4. My family supports the decisions I take as housewife.	-.08	-.73	.15	-.81	-.31	-.73
5. My work as a housewife shows slim personal challenges for me.	.50	-.13	.63	-.35	.43	.01
6. My work as a housewife lacks in interest.	.65	.36	.64	.15	.73	.52
7. When I am at home, I am in bad humor.	.64	.35	.63	.15	.72	.51
8. In my family, we help each other in doing housework.	-.18	-.61	-.01	-.63	-.37	-.63
9. Personal relations I establish as housewife are gratifying for me.	-.07	-.76	.17	-.84	-.31	-.75
10. My family underestimates the importance of my work.	.41	.64	.27	.57	.59	.73
11. There is little recognition from my for the effort I make for them.	.24	.62	.08	.62	.43	.66
12. The interest in my professional or personal development is very poor.	.28	.30	.22	.23	.36	.36
13. I consider the work I do affects my personal health (headache, sleeplessness, etc.)	.59	.39	.57	.21	.69	.54
14. My work is repetitive.	.53	-.29	.72	-.54	.41	-.13
15. I am tired of my work as housewife.	.72	.29	.74	.05	.77	.47
16. I like atmosphere and environment of my home.	-.09	-.68	.12	-.74	-.30	-.68
17. My work as housewife is affecting my familial and personal relations.	.53	.50	.46	.36	.66	.62
18. I do housework mechanically, without love.	.70	.41	.69	.19	.80	.58
19. The work I do is far from what I would have wanted.	.73	.33	.74	.09	.79	.52
20. My work as housewife is boring.	.76	.28	.80	.02	.81	.48
21. My housewife work problems make my performance lower.	.73	.37	.73	.14	.81	.55
$\Sigma^2$	5.52	4.73	7.37	6.43		
% explained variance	26.27	22.53				

items are factorizing by Principal Components, based on Kaiser’s criterion, it is obtained a unique component that explain the 57% of total variance.

The 16 items of two factors model (2FR-16) have a high internal consistency ( $\alpha = .92$ ), as well as the ten items of its first factor ( $\alpha = .92$ ) and the six items of its second factor ( $\alpha = .82$ ). The stability between two and four weeks from the sixteen items scale is also high ( $r_{112} = .87$ ), as well as the one from the first factor ( $r_{112} = .77$ ) and the one

from the second ( $r_{112} = .73$ ) (see Table 6). The 18 items of 3 factors model (3FR-18) have a high internal consistency ( $\alpha = .91$ ), as well as the two first factors of this model (.91 and .84, respectively), showing the three items of its third factor an appropriate consistency ( $\alpha = .67$ ).

The simplified two factors model with 16 items is reproduced by EFA (PCA and Promax rotation) under Kaiser’s criterion, explaining the 57.7% of the total variance. The two components correlation is  $r = .59$ .

Table 5  
Goodness-of-fit indices of 7 models for the CUBAC

Indices	Interpretation		Models						
	Good	Bad	3FO-21	3FO-18	3FO-11	3FR-21	3FR-18	2FR-20	2FR-16
Iterations			18	15	9	10	9	10	9
<i>Basic summary statistics</i>									
<i>DF</i>	≤ 2	> 3	2.92	2.24	.56	2.25	1.58	2.15	1.19
<i>ML χ<sup>2</sup></i>			571.51	450.62	116.41	440.38	317.09	422.81	245.56
<i>df</i>			186	132	41	186	132	169	103
<i>p</i>	≥ .05	< .01	.00	.00	.00	.00	.00	.00	.00
<i>ML χ<sup>2</sup> / df</i>	≤ 2	> 3	3.07	3.41	2.84	2.37	2.40	2.50	2.38
<i>RMS SR</i>	≤ .05	> .09	.08	.08	.05	.09	.06	.07	.06
<i>Non-centrality fit indices</i>									
<i>PNCP</i>	≤ 1	> 2	2.72	2.20	.39	1.31	.97	1.49	.76
<i>RMS EA</i>	≤ .05	> .09	.12	.13	.09	.08	.09	.09	.09
<i>GPI</i>	≥ .95	< .85	.79	.80	.93	.89	.90	.87	.91
<i>AGPI</i>	≥ .90	< .80	.74	.75	.89	.86	.87	.84	.88
<i>Single sample fit indices</i>									
<i>GFI</i>	≥ .95	< .85	.74	.76	.90	.82	.85	.81	.86
<i>AGFI</i>	≥ .90	< .80	.68	.69	.84	.78	.80	.76	.82
<i>NFI</i>	≥ .95	< .85	.73	.77	.91	.79	.84	.79	.87
<i>NNFI</i>	≥ .95	< .85	.77	.80	.92	.85	.88	.85	.90
<i>CFI</i>	≥ .95	< .85	.80	.83	.94	.87	.90	.86	.92
<i>Δ</i>	≥ .95	< .85	.80	.83	.94	.87	.90	.86	.92

Models of correlated factors and independent residual:

3FO-21 (Antecedents: 2, 4, 6, 8, 9, 10, 14, 16 and 20; Syndrome: 1, 3, 5, 7, 11, 12, 15, 18 and 19; Consequences: 13, 17 and 21), 3FO-18 (Antecedents: 2, 4, 6, 8, 9, 10, 16 and 20; Syndrome: 1, 3, 7, 11, 15, 18 and 19; Consequences: 13, 17 and 21), 3FO-11 (Antecedents: 6, 10 and 20; Syndrome: 1, 7, 15, 18 and 19; Consequences: 13, 17 and 21).

3FR-21 (Boredom, lack of self-accomplishment and low performance: 1, 5, 6, 7, 15, 18, 19, 20 and 21; Lack of support and familiar recognition with consequences on health and interpersonal relationships: 3, 4, 8, 10, 11, 12, 13 and 17; Good adjustment to role and satisfaction with the familiar atmosphere and interpersonal relationships: 2, 9, 14 and 16), 3FR-18 (Boredom, lack of self-accomplishment and low performance: 1, 6, 7, 15, 18, 19, 20 and 21; Support and familiar recognition lack with consequences on health and interpersonal relationships: 3, 4, 8, 10, 11, 13 and 17; Good adjustment to role and satisfaction with the familiar atmosphere and interpersonal relationships: 2, 9 y 16).

2FR-20 (Exhaustion, boredom, negative affect and consequences: 1, 5, 6, 7, 13, 14, 15, 17, 18, 19, 20 and 21; Lack of support and recognition: 2, 3, 4, 8, 9, 10, 11 and 16), 2FR-16 (Exhaustion, boredom, negative affect and consequences: 1, 6, 7, 13, 15, 17, 18, 19, 20 and 21; lack of support and recognition: 3, 4, 8, 9, 10 and 11). Goodness-of-fit indices: *DF*: Discrepancy Function, *MLχ<sup>2</sup>*: Chi-Square, *df*: Degrees of Freedom, *p*: Probability of *MLχ<sup>2</sup>*, *RMS SR*: Root Mean Square Standardized Residual, *PNCP*: Population Non-centrality Parameter, *RMS EA*: Steiger-Lind Root Mean Square Error of Approximation Index, *GPI*: Population Gamma Index, *AGPI*: Adjusted Population Gamma Index, *GFI*: Joreskog's Goodness Fit Index *AGFI*: Joreskog's Adjusted Goodness Fit Index, *NFI*: Bentler-Bonett Normed Fit Index, *NNFI*: Bentler-Bonett Non-Normed Fit Index, *CFI*: Bentler's Comparative Fit Index and *Δ*: Bollen's Delta.

### Correlation between scales and their factors

First, the total score of anger expression (AX/EX) and its four factors are correlated with the total score of the CUBAC-21 and its original three subscales (antecedents, syndrome and consequences); and second, with the total score of the CUBAC-16 and its two factors.

After eliminating three items (3, 10 and 17), the anger expression total score (AX/EX) is calculated. It is added

as constant 24. Like in original calculation, two Anger-In and Anger-Out factors are added, and two control factors are subtracted. In this way, AX/EX index may vary from 0 to 39. The scores of the factors are obtained by adding selected items.

Based on Kolmogorov-Smirnov test, the distributions of the CUBAC-21 total score and its antecedents and syndrome factors are fitted to a normal curve, but the consequences one is positively skewed. The distributions

Table 6  
Descriptive statistics, normality, internal consistency and stability

	CUBAC-21 (3FO-21)				CUBAC-16 (2FR-16)			STAXI-2-AX/EX				
	TS	A	S	C	TS	F1	F2	EX	AC-I	AC-E	AX-O	AX-I
<i>N</i>	197	211	209	221	207	210	220	202	218	217	214	221
$\bar{X}$	49.89	22.07	21.33	6.30	36.13	21.85	14.31	9.03	15.28	15.94	10.68	5.51
<i>SD</i>	14.52	6.23	6.59	2.69	12.29	8.25	5.21	10.57	4.8	4.33	3.16	1.83
<i>Sk.</i>	.59	.41	.52	.73	.59	.66	.33	.06	.20	.10	.83	.86
<i>SE</i>	.17	.16	.17	.16	.17	.17	.16	.17	.16	.16	.17	.16
<i>Kur</i>	.13	-.09	.20	.03	-.01	.18	-.58	-.26	-.89	-.78	.52	.78
<i>SE</i>	.34	.33	.33	.33	.34	.33	.33	.34	.33	.33	.33	.33
$Z_{K-S}$	1.10	1.10	.94	2.05	1.25	1.28	1.33	.54	1.32	1.40	1.93	2.35
<i>p</i>	.18	.18	.33	.00	.09	.074	.06	.93	.06	.04	.00	.00
Items	21	9	9	3	16	10	6	20	6	6	6	3
$\alpha$	.91	.78	.81	.78	.92	.92	.82	.89	.87	.86	.74	.66
$r_{tt2}$	.87	.81	.68	.77	.87	.77	.73					
<i>n</i>	67	79	75	89	75	78	85					
<i>p</i>	.00	.00	.00	.00	.00	.00	.00					

*Sk* = Skewness, *SE* = Standard Error, *Kur* = Kurtosis.

CUBAC-21 (3FO-21): TS (Total score) = A + S + C, being A = Antecedents (2, 4, 6, 8, 9, 10, 14, 16 and 20), S = Syndrome (1, 3, 5, 7, 11, 12, 15, 18 and 19) and C = Consequences (13, 17 and 21).

CUBAC-16 (2FR-16): TS (Total Score) = F1 + F2, being F1: Exhaustion, boredom, negative affect and consequences (1, 6, 7, 13, 15, 17, 18, 19, 20 and 21) and F2: Lack of support and recognition (3, 4, 8, 9, 10 and 11).

STAXI-2-AX/EX: AX/EX (Anger expression) = 24 + AX-O + AX-I – AC-I – AC-E, being AX-O = Anger-Out (2, 4, 6, 9, 13 and 15), AX-I = Anger-In (7, 12 and 14), AC-I = Anger Control-In (19, 20, 21, 22, 23 and 24) and AC-O = Anger control-Out (1, 5, 8, 11, 16 and 18).

of the CUBA-16 total score and its two factors are also fitted to a normal curve, as well as the Anger Expression (AX/EX) Index and its Control-In factor. The Control-Out factor shows a statistical tendency to normality ( $p = .04$ ). It is not the case of Anger-Out and Anger-In factors, whose asymmetric distributions are positively skewed, kept away from normality ( $p < .01$ ) (see Table 6).

The AX/EX index presents a moderate and direct correlation with the CUBAC-21 total score (addition of antecedents, syndrome and consequences three scales) ( $r = .36$ ); its stronger correlation is with Antecedents ( $r = .38$ ), followed by correlations with Syndrome ( $r = .32$ ) and Consequences ( $r = .28$ ) (see Table 7).

The association of the AX/EX index is stronger with Lack of support and recognition factor ( $r = .36$ ) than with Exhaustion, boredom, negative affect and consequences factor ( $r = .31$ ) of the CUBAC-16. Anger-In and Anger-Out factors show higher correlations with the total score of the CUBAC-16 and its two factors, more defined with Exhaustion than with Lack of support, being correlations of Anger-In factor higher those of Anger-Out. Inversely, two types of anger control correlate more with Lack of support than with Exhaustion, being correlations of Control-Out factor higher than those of Control-In (see Table 7)

## Discussion

The four factors structure of the Anger Expression (AX/EX) Scale of State Trait Anger Expression Inventory (STAXI-2) is validated in a sampling of Mexican housewives. Exploratory factor analysis reproduces exactly the two factors of control (AC-I and AC-O). Item 17 (*I avoid facing what makes me feel angry*) loads in Anger-Out factor, instead of doing it in Anger-In factor, but when it is excluded from the Anger-Out factor and internal consistency of this factor is calculated, it is observed that the value of coefficient alpha increases; in consequence, it would be better not include it in this factor. Nevertheless, if it is included in the Control-In factor, where it was expected that the item loaded, the internal consistency of this latter factor decreases. Meaning of item 17 implies evitative coping, not keeping angry in, so it results inadequacy for the Anger-In factor.

The most problematic factor is Anger-In, since not only loses item 17, but two more items show low loadings, and factor internal consistency improves when they are eliminated. Besides these two items (3: *I keep thing in* and 10: *I harbor grudges without telling*) present clear contents of internalizing anger. The three items defining the Anger-In factor with high loadings ( $> .70$ ) and a coefficient alpha

Table 7  
Correlation among STAXI-2-AX/EX scales and CUBAC-21 or -16 scales

STAXI-2-AX/EX		CUBAC-21 (3FO-21)				CUBAC-16 (2FR-16)		
		TS	A	S	C	TS	F1	F2
<i>Anger expression</i>	<i>r</i>	.36	.38	.32	.28	.38	.31	.36
	<i>p</i>	.00	.00	.00	.00	.00	.00	.00
	<i>n</i>	184	193	193	200	192	193	200
<i>Anger control- In</i>	<i>r</i>	-.21	-.26	-.15	-.13	-.21	-.16	-.21
	<i>p</i>	.00	.00	.03	.06	.00	.02	.00
	<i>n</i>	197	207	207	215	206	207	216
<i>Anger control-Out</i>	<i>r</i>	-.24	-.29	-.18	-.14	-.25	-.17	-.29
	<i>p</i>	.00	.00	.01	.04	.00	.01	.00
	<i>n</i>	194	207	204	215	203	205	214
<i>Anger-Out</i>	<i>r</i>	.32	.27	.33	.33	.34	.36	.25
	<i>p</i>	.00	.00	.00	.00	.00	.00	.00
	<i>n</i>	188	202	200	212	198	201	210
<i>Anger-In</i>	<i>r</i>	.37	.32	.36	.36	.37	.34	.32
	<i>p</i>	.00	.00	.00	.00	.00	.00	.00
	<i>n</i>	195	209	207	219	205	208	217

STAXI-2-AX/EX: Anger expression: 24 + AX-O + AX-I – AC-I – AC-E, being Anger-Out (AX-O) (2, 4, 6, 9, 13 and 15), Anger-In (AX-I) (7, 12 and 14), Anger control- In (AX-I) (19, 20, 21, 22, 23 and 24) and Anger control-Out (AX-O) (1, 5, 8, 11, 16 and 18). CUBAC-21 (3FO-21): PT (Total score) = A + S + C, being A = Antecedents (2, 4, 6, 8, 9, 10, 14, 16 and 20), S = Syndrome (1, 3, 5, 7, 11, 12, 15, 18 and 19) and C = Consequences (13, 17 y 21). CUBAC-16 (2FR-16): PT (Total score) = F1 + F2, being F1: Exhaustion, boredom, negative affect and consequences (1, 6, 7, 13, 15, 17, 18, 19, 20 and 21) and F2: Lack of support and recognition (3, 4, 8, 9, 10 and 11).

higher than .65 are referred to the insight of an anger arousal level higher than the one is exteriorized (*I boil inside, but I hide it, and I feel more irritated than people think*), even from what the person admits for herself (*I am angrier than admit*). Therefore, when reviewing Anger-In subscale, if it is wanted to substitute three weak items, the new ones must be referred to insight of a high level of arousal by non exteriorized anger, even somatized emotion items may be tested, for example “*I have a headache due to anger I feel*”, “*I feel tired due to anger I feel*”, and “*anger makes me scream inside*”.

When analyzing Housewives *Burnout* Questionnaire (CUBAC) from the whole of its 21 items, the more clearly defined model is the two related factors. If the CUBAC are reduced to 16 items, two-dimensional structure is easily reproducible by exploratory factor analysis, based on Kaiser’s criterion, besides the goodness-of-fit indices are from good to appropriate. These two factors, that are defined with high internal consistency (> .80), have a clear sense regarding two basic human needs from the neuro-evolutionary perspective (Moral, 2009; Panksepp, Knutson & Burgdof, 2001). One dimension refers to the presence of exhaustion, boredom, negative affect and health, labor

and social consequences. The other dimension reflects lack of support and recognition. The first dimension would be in accordance with activity-accomplishment and the second dimension with attachment-support necessity. Activation need has been related to the dopaminergic system, implying medial forebrain bundle, nucleus accumbens, ventral tegmental area and mid-basal prefrontal. Its satisfaction leads to excitement feelings and pleasant activation. On the other hand, frustration of these needs involves boredom feeling that may be compensated with consuming of stimulant drugs, such as cocaine, amphetamines, methamphetamines and nicotine, or involving in stimulant behaviors, like games of chance, skills’ games, reading books and sex. Need of supporting and recognition has been related to endorphinergic, oxytocin and vasopressin systems. Its satisfaction leads to a feeling of security and to be loved. Its frustration provokes feelings of emptiness and detachment that may be compensated with drug consumption, like alcohol and opiates, and stimulant behaviors, like to eat excessively or compulsive shopping. Work addiction is related to a frustration from both conditions, in which the subject continues needing to satisfy her attachment wishes, but her

activation need is over compensated by being involved in an excessive work load.

The Burnout Brief Questionnaire (CBB) by Moreno-Jimenez et al. (1997) is based on a development sequential model of burnout syndrome. A group of symptoms are precursory or risk factors, others reflect the symptom strictly speaking and three consequences of syndrome are added. The model is not appropriately confirmed from the analysis of the whole 21 items. Exploratory factor analysis does not reach to reproduce the dimensions searched, and the goodness-of-fit indices by confirmatory factor analysis are somewhat poor. Nonetheless, most of the syndrome items remain in the exhaustion, boredom and negative affect factor, together with the three consequences on health, work and personal relations, and most of the antecedents' items remains in the lack of support and recognition factor. In this way, the syndrome, in lighter and initial way, would be manifested by a feeling of lack of support and recognition feeling, when worsening the syndrome would appear as tiredness, boredom, negative affect (from anxious-depressive component) and finally it would be reflected simultaneously in performance, health and personal relations.

If the CUBAC is analyzed, in the same sample, with the three original factors, though excluding housewives who earn their own money or are singles without children ( $n = 200$ ), it may be concluded that the model underlying the questionnaire construction is valid from an analysis of structural equation modeling. Each scale has a one-dimensional structure with good goodness-of-fit indices. A sequential model, in which the precursory and burnout symptoms are two manifest variables (the first exogenous and second endogenous) and the consequences are three indicators from an endogenous latent variable, has a good fit (Gonzalez et al., 2009). Exactly, this was the methodology on which CBB questionnaire proposal was based on (Moreno-Jimenez et al., 1997).

In view of this discrepancy, we could suggest that there would have two valid models underlying the questionnaire, which would require a deeper study for their differential testing due to practical implications and heuristic scope. The lack of support and recognition stands out in the two-dimensional model as precursory agent of burnout syndrome, pointing out to a lack of justice or reciprocity of Semts et al. (2004) model, rather than to labor stressors in view of which housewife feels incompetent, as Dierendock et al. (2001) proposed in their model. Lower anger control- especially external expression- and higher externalizing anger are associated with lack of support and recognition, that is, with the early stage of the burnout syndrome. Anger internalization is more associated with exhaustion, anxious-depressive feelings and consequences, that is, with late stage of the syndrome, which also coincides with observations in other populations reported by Smets et al. (2004).

As was expected, the correlation between CUBAC and STAXI-2-AX is moderate and direct. The result is equivalent between the CUBAC-21 original three factors model and two CUBAC-16 factors, but magnitudes of correlations are higher for the two factors model. Anger-Out and Anger-In factors are associated especially with exhaustion, boredom, negative affect, precursory symptoms and consequences. Control factors (external and internal) are associated especially with lack of support and syndrome symptoms. Also, the two-dimensional model shows internal consistency and stability values higher than the three factor model.

One limitation of the study is the non-probabilistic character of the sample and the nature of self-reported data, even though the sampling procedure used guarantees the independency of participants and randomness. Moreover, the size ( $n > 200$ ) is appropriate for application of the CFA analysis (Kline, 1998). If projective or observational data, body automatic responses or other types of data were used, the results could differ and would require an integrating theory of human cognition.

It is concluded that four related factors model proposed by Spielberger (1999) is well fitted to STAXI-2-AX in a Mexican housewives sample, even though the Anger-In factor remains reduced to three indicators. This latter factor could be extended using items referring to anger arousal and consequent somatic symptoms coming from its non-expressed. When analyzing the Housewives Burnout Questionnaire (CUBAC, in Spanish), from the whole of its 21 items, a two related dimensions model is the one shows the best fit. A dimension makes reference to the presence of exhaustion, boredom, negative affect and health, labor and social consequences. The other dimension reflects complaints about lack of support and recognition. These two dimensions would be in accordance with motivation basic systems used by neuro-evolutive perspective in order to explain differential addictive profiles: activity-accomplishment and attachment-support (Moral, 2009; Panksepp et al., 2001). Nonetheless, the three factors sequential model proposed by Moreno-Jimenez et al. (1997) about antecedents, syndrome and consequences, based on a structural equation modeling analysis, in which antecedents are a manifest exogenous variable; syndrome, a manifest endogenous variable, and consequences, an endogenous latent variable with three indicators (González et al., 2009) is also valid for the CUBAC. It must be mentioned that most of the core characteristics of syndrome and the three consequences of three-dimensional model are located in two-dimensional model boredom factor, and most of the antecedents' characteristics in the lack of support and recognition factor. In this way, the housewives syndrome seems to begin by lack of support and recognition complaints, pointing to a causal model of lack of equity between efforts and results.

Anger expression, especially lack of external control is more frequently associated with an early lack of support; and its internalization, with advance stage of exhaustion and negative affect. The CUBAC is consistent, stable and shows a clear dimensional structure with a good fit. A concurrent validity between both forms is obtained, with correlations slightly higher in two dimensions model for the CUBAC. Future research should aim to focus on differential properties of proposed models for the CUBAC and to replicate the study in Mexico and other countries.

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