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Psychometric properties of the ‘Spanish Burnout Inventory’ among employees working with  
people with intellectual disability

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## Abstract

*Background.* Burnout has been recognised as an important stress-related problem for employees working with people with intellectual disability. Researchers have been troubled by some of the psychometric limitations of the questionnaires developed to evaluate burnout. This study was designed to assess the psychometric properties of the Spanish Burnout Inventory. *Method.* The sample consisted of 697 Spanish employees working in intellectual disability services. The instrument is composed of 20 items distributed in four dimensions: Enthusiasm toward the job, Psychological exhaustion, Indolence, and Guilt. The psychometric properties were examined through the following analyses: confirmatory factor analysis and reliability. To assess the factorial validity of the Spanish Burnout Inventory, four alternative models were tested. *Results.* The four-factor model obtained an adequate data fit for the sample. The four subscales exhibited high reliability, with Cronbach alphas exceeding the critical value of 0.70. *Conclusions.* This study provides evidence showing the adequate psychometric properties of an alternative burnout measure that could facilitate the diagnosis of individuals with burnout. It recommends taking feelings of guilt into consideration in interventions designed to improve staff burnout.

Keywords: burnout, factor analysis, reliability, Spanish Burnout Inventory, job stress.

Psychometric properties of the 'Spanish Burnout Inventory' among employees working with people with intellectual disability

Stress is the fourth most common health symptom reported by Europe's workers (Parent-Thirion et al. 2007, p. 62). In the United States, work-related stress constitutes a problem similar to that of the European Union. According to the National Institute for Occupational Safety and Health (NIOSH, 1999), the percentage of workers who report that their job is stressful ranges from 28 % to 40 %, and 26 % of workers report that they are "often or very often burned out or stressed by their work".

According to a report by the European Agency for Safety and Health at Work (2007, p. 8) on emerging psychosocial risks related to occupational safety and health, burnout, job-induced tension and depression are consequences of new forms of employment, new types of contracts and job insecurity.

Burnout is a psychological response to chronic work-related stress of an interpersonal and emotional nature that appears in professionals in service organizations who work in direct contact with the clients or users of the organization. Burnout has been recognised as an important stress-related problem for employees working with people with intellectual disability (ID) (Skirrow & Hatton, 2007). In this occupational sector the relationship between professionals and clients is central to the job, and the nature of the work is highly emotional (Thomas & Rose, 2010). For example, these professionals are frequently exposed to stressors identified as relevant antecedents of burnout, such as role conflict and role ambiguity, inequity in the relationship (Skirrow & Hatton, 2007), low social support at work, and work overload (Devereux et al. 2009). In addition, they are usually required to spend a considerable amount of time providing intense dedication to users needing help, frequently in a dependence situation, where this established relationship can be full of frustration, fear, disappointment and aggression (Lecavalier et al. 2006; Mutkins et al. 2011). These job conditions contribute

to the development of burnout, and they deteriorate the quality of the service provided (Rose, 2011).

The definition of burnout that currently finds the greatest consensus in the scientific community is the one advanced by Maslach et al. (2001), who refer to burnout as a syndrome of exhaustion, cynicism (or depersonalization) and reduced efficacy or accomplishment. These symptoms can be assessed using the Maslach Burnout Inventory (MBI) (Maslach et al. 1996). A review of the literature leads to the conclusion that the MBI is the most frequently employed instrument to measure the burnout syndrome (Shirom & Melamed, 2006), regardless of the occupational characteristics of the sample or the source of the burnout.

Some studies (Worley et al. 2008) consider the questionnaire to be psychometrically robust enough for use in diverse countries, and others have concluded that it is a suitable tool for assessing dimensions of burnout in staff working with persons with ID (Chao et al., 2011; Hastings et al. 2004). However, a review of the literature indicates that researchers have been troubled by some of the psychometric limitations of the MBI (Wheeler et al. 2011): a) a two-factor model might be more appropriate than the three-factor original structure (Kalliath et al. 2000); b) items 12 and 16 cross-load (Maslach et al. 1996); c) the internal consistency coefficients for the subscale of Depersonalization are poor (Schaufeli & Enzman, 1998; Peeters & Rutte, 2005); d) the MBI is based on a limited concept of burnout (Kristensen et al. 2005); and e) the MBI focuses only on affective components of emotional exhaustion (Halbesleben & Demerouti, 2005). Some of these limitations have been obtained in samples of staff working with persons with ID, such as a factor-structure model that is not invariant across samples, and there have been problems with the interpretation of the meaning of the subscales (Vanheule et al., 2007). Furthermore, wording issues on the Depersonalization subscale may lead to inconsistent responses and poor internal consistency coefficients (Chao et al., 2011).

In addition, some studies have concluded that there is a need for a model of how and why staff members working in ID services become significantly burned out, in order to help to design interventions to reduce staff stress (Hastings et al. 2004), and previous studies have proposed the existence of different types of burnout (Farber, 2000; Tops et al., 2007; Vanheule et al., 2003).

Feelings of guilt is a variable that appears to be involved in the burnout syndrome (Ekstedt & Fagerberg, 2005; Farber & Miller, 1981; Freudenberger, 1974; Maslach, 1982; Price & Murphy, 1984), and it could explain different types of burnout by taking into consideration the role of feelings of guilt as a component of burnout in the relationship between burnout and its consequences. Guilt is conceptualized as the unpleasant and remorseful feelings associated with the recognition that one has violated, or is capable of violating, a moral standard (Jones & Kugler, 1993). In contrast to shame, where the focus of attention involves a negative evaluation of the global self, guilt involves a negative evaluation of a specific behaviour (Tangney et al. 2007). It draws attention to the wrongfulness of the precipitating event and to injury suffered by the victim (Quiles & Bybee, 1997).

One of the frequent causes of feelings of guilt in professionals is the existence of negative thoughts about others and the negative and cynical way they have treated them (Maslach, 1982). Some professionals feel they are becoming cold and dehumanized, and this experience leads them to reaffirm their commitment toward other people and the responsibility of taking care of them (Baumeister et al. 1994; Tangney et al. 2007). In these situations, they feel higher levels of burnout. As a result, they develop a sense of failure and loss of self-esteem, which can lead to a state of depression (Maslach, 1982). The clinical alterations produced by feelings of guilt (e.g., depression) can cause an increase in the rate of absenteeism (Baba et al. 1999). In a cross-sectional study, Gil-Monte (2008) obtained empirical evidence for the influence of guilt in the relationship between depersonalization and

absenteeism (i.e., number of work days missed in the past year). Those professionals who presented high levels of depersonalization showed more absenteeism, but only when they felt high levels of guilt about their attitude/behaviour at work.

The theoretical model of burnout developed by Gil-Monte (2005) is based on the concept that burnout is a response to chronic job stress that stems primarily from problematic interpersonal work relationships (Maslach et al. 2001). It is characterized by cognitive deterioration (i.e., low enthusiasm toward the job), emotional deterioration (i.e., psychological exhaustion), and attitudes and behaviours of indifference, indolence, and withdrawal. In some cases, feelings of guilt appear. The model distinguishes two patterns in the development of burnout. In both, showing attitudes and behaviours of indolence can be understood as a coping strategy that arises to handle emotional and cognitive deterioration. However, while for some professionals this coping strategy is adequate and allows them to manage the levels of strain, other professionals consider this way of proceeding to be unacceptable, and they develop feelings of guilt (Gil-Monte, 2012).

The “Spanish Burnout Inventory” (SBI) (Gil-Monte & Olivares, 2011) is a new instrument developed to evaluate these symptoms. This psychometric instrument includes four dimensions: 1. Enthusiasm toward the job: the individual’s desire to achieve goals at work as a source of personal pleasure. 2. Psychological Exhaustion: emotional and physical exhaustion due to the fact that at work s/he must deal daily with people who present problems. 3. Indolence: negative attitudes of indifference and cynicism toward the organization’s clients. 4. Guilt: feelings of guilt about negative attitudes developed on the job, especially toward the people with whom s/he establishes work relationships.

The SBI represents a significant advantage over other instruments. Consistent with past suggestions in the burnout literature: a) it provides a broader conceptualization of burnout that is simply missing from the literature (i.e., estimations of feelings of guilt)

(Freudenberger, 1974; Maslach, 1982; Pines, 1983; Price & Murphy, 1984); b) it offers a theoretical proposal to explain different types of burnout (Paine, 1982; Farber, 2000); c) furthermore, the SBI features questions designed to assess cognitive and physical components of exhaustion (Pines et al. 1981).

Taking the SBI factor structure into consideration, previous exploratory factorial analysis studies have shown a four-factor structure similar to that of the model, representing Enthusiasm toward the job, Psychological Exhaustion, Indolence, and Guilt (Olivares & Gil-Monte, 2007). In this study, the amount of variance explained by the four factors was 59.07%. Results have been replicated by confirmatory factor analysis (CFA), obtaining empirical support for the four-factor structure model (Bosle & Gil-Monte, 2010; Gil-Monte et al. 2010). The scale score reliability has been acceptable for all the subscales and above the critical value of 0.70 (Nunnally, 1978). The Indolence subscale scores tend to produce lower Cronbach's alpha values than the other subscales, while the Enthusiasm toward the job subscale tends to produce the highest Cronbach's alpha scores.

Previous studies have obtained adequate values of concurrent validity with the subscales of the MBI. The  $r$  Pearson values ranged from 0.44 to 0.34 for the correlation between Enthusiasm toward the job and Personal accomplishment, 0.74 to 0.77 for the correlation between Psychological exhaustion and Emotional exhaustion, and 0.47 to 0.58 for the correlation between Indolence and Depersonalization (Olivares & Gil-Monte, 2007; Olivares & Gil-Monte, 2007/2008).

The purpose of the present study was to analyze the psychometric properties of the SBI (factor structure through CFA and the validity of its dimensions) in Spanish employees working with people with ID. On the basis of previous results and the factor structure of the instrument, a four-factor model was hypothesized.

## Methods

### *Participants and Procedure*

The sample consisted of 697 Spanish employees working in services for people with ID at 78 job centres in the Valencian Community (Spain). With regard to gender, 20.20% of the participants were men and 79.8% were women. The mean age was 40.98 years ( $SD = 9.03$ ). The mean number of years at work was 12.97 ( $SD = 8.04$ ). 68.9% of participants were tenured staff, and 29.20% were temporary. With regard to occupation, the highest percentage of participants worked as personal care assistants (33.60%) and educators (30.70%). The remaining participants worked as social workers, psychologists, health professionals, administrative staff, etc.

The job centres were selected in a random way, taking into account the population of job centres that provide attention and care for people with ID (stimulation centres, occupational centres, day centres, and residential centres) in the Valencian Community (Spain). The researchers contacted the managers of all the selected centres to ask for permission to use a questionnaire. Then, all of the workers at the selected centres were asked to fill out the inventory. Participation was voluntary, and confidentiality was guaranteed. The questionnaire was handed out, together with a response envelope in which to return the questionnaire to the researchers. In some centres, the response envelopes were gathered for the researchers. Response rate was 50.50%.

### *Instruments*

The data were obtained with the Spanish Burnout Inventory (Gil-Monte & Olivares, 2011). This instrument contains 20 items distributed in four dimensions: Enthusiasm toward the job (5 items), Psychological exhaustion (4 items), Indolence (6 items), and Guilt (5 items) (see Table 1). Items are answered on a five-point frequency scale, ranging from 0 (never) to 4 (very frequently: every day) (range, 0-4). Low scores on Enthusiasm toward the job, together



with high scores on Psychological Exhaustion and Indolence, as well as on Guilt, indicate high levels of burnout.

### *Statistical analysis*

Data were subjected to confirmatory factor analysis with the Amos 17 program. The maximum likelihood estimation method was used. Because the  $\chi^2$  test is sensitive to sample size, other fit indices were considered. The *Goodness of Fit Index* (GFI) is a measure of the relative amount of variance and covariance explained by the model. The Normed Fit Index (NFI) and the *Comparative Fit Index* (CFI) indicate the amount of variation and covariation accounted for by a particular model by comparing the relative fit of the given model with the fit of a baseline model. For these three indexes, values higher than 0.90 are considered indicators of an acceptable fit of the model (Bentler, 1992; Hoyle, 1995). The *Root Mean Square Error of Approximation* (RMSEA) estimates the overall amount of error in the model. Values between 0.05 and 0.08 indicate an adequate fit of the model (Browne & Cudeck, 1993; Hair et al. 1995). Differences between models were also evaluated using the Akaike measure (AIC). The model with the minimum AIC value is chosen as the best model to fit the data (Akaike, 1987). As a rule of thumb, AIC differences higher than 4 show considerably more support for the model with the lowest AIC (Burnham & Anderson, 2002).

## Results

### *Item analysis*

Descriptive statistics for the items and corrected item-scale correlations are presented in Table 1. The highest mean value was reached by items 10 (*I think my job gives me positive experiences*) and 15 (*I find my work quite rewarding*) ( $M = 2.87$ ), which both belong to the “Enthusiasm toward the job” subscale. The lowest mean was obtained by item 7 (*I think I treat some intellectually disabled persons with indifference*), which belongs to the “Indolence” subscale, and by item 13 (*I regret some of my behaviours at work*), which

belongs to the “Guilt” subscale ( $M = 0.63$ ). The corrected item-total correlation for all items achieved values equal to or greater than 0.45. An exception was item 11 (*I feel like being sarcastic with some intellectually disabled persons*), with a value of 0.36. Out of 20 items on the inventory, 6 items slightly exceeded the skewness range of  $\pm 1$ . The item that showed the highest values on both skewness and the kurtosis statistic was item 7 ( $Sk = 1.37, K = 2.50$ ).

INSERT TABLE 1 ABOUT HERE

### *Factor analysis*

Table 2 displays results for the data fit of the SBI models. To assess the factorial validity of the SBI, four alternative models were tested: (1) the one-factor model (M1), which assumes that all the SBI items load in a general composite burnout factor; (2) the two-factor model (M2), in which the Enthusiasm toward the job, Psychological exhaustion and Indolence items cluster into one factor, and the Guilt items constitute the second factor; (3) the three-factor model (M3), in which the Enthusiasm toward the job items cluster into one factor, the Psychological Exhaustion and Indolence items cluster into a second factor, and the Guilt items constitute the third factor; and (4) the original four-factor model (M4).

INSERT TABLE 2 ABOUT HERE

The four-factor model (M4) obtained the best data fit for the sample:  $\chi^2(164) = 427.574$  ( $P < 0.001$ ), GFI = 0.940, RMSEA = 0.048, NFI = 0.928, CFI = 0.954, AIC = 519.574. All of the factorial loadings were statistically significant, and all of the relationships among the dimensions of the SBI were statistically significant for  $P < 0.001$  (Figure 1). Furthermore, in all pairs of comparisons, the difference in  $\chi^2$  was significant, indicating that with this index, M4 fit the model significantly better than the other models (i.e., M1 to M3). Values for the difference in  $\chi^2$  were as follows: M1 vs. M2,  $\chi^2(1) = 1122.185$  ( $P < 0.001$ ); M2 vs. M3,  $\chi^2(2) = 888.069$  ( $P < 0.001$ ); and M3 vs. M4,  $\chi^2(3) = 577.050$  ( $P < 0.001$ ). Regarding the AIC index, M4 obtained the smallest AIC value. The difference in M3 vs. M4, AIC =

571.050, showed a value higher than 4.

The item which by far showed the lowest correlation with its factor (Indolence) was item 11 ( $\lambda = 0.38$ ,  $t = 9.29$ ) (Figure 1). All of the four dimensions of the SBI intercorrelated significantly. The strongest relationship was found between the subscales of Enthusiasm toward the job and Psychological exhaustion ( $r = -0.40$ ,  $P < 0.001$ ), and the lowest relationship was found between Enthusiasm toward the job and Guilt ( $r = -0.07$ ,  $P < 0.01$ ) (Table 3).

INSERT FIGURE 1 ABOUT HERE

#### *Validity of the subscales*

Table 3 presents the descriptive statistics for the subscales of the SBI. For all the subscales, the skewness values ranged between  $\pm 1$ . For the subscales “Enthusiasm toward the job”, “Psychological exhaustion” and “Indolence”, the kurtosis values ranged between  $\pm 1$ , and for “Guilt” the kurtosis value was 1.30, which indicates a slightly peaked distribution. Therefore, a normal distribution can be assumed for the four subscales. The internal consistency values for all scales met the standard of Cronbach’s alpha  $> 0.70$  (Table 3) recommended by Nunnally (1978). The items contributed to increasing the internal consistency of the subscales to which they belong (Table 1).

INSERT TABLE 3 ABOUT HERE

#### Discussion

The purpose of this paper was to develop evidence for the psychometric properties of the SBI in Spanish employees working with people with ID. The results obtained at the item level are theoretically sound. Taking the size of the sample into account, the skewness and kurtosis values were acceptable for all items (Miles & Shevlin, 2005). The item that showed the highest deviation in both statistics was item 7, which belongs to the Indolence subscale. Moreover, this item showed the lowest Mean value of all the Indolence subscale items. These

results might be contaminated by a social desirability bias (Ganster et al. 1983) because of the word “indifference”. Participants may respond in an extreme way to this aspect of burnout because sentiments of group solidarity play a significant role (Maslach et al. 2001).

The results confirmed the hypothesized four-factor structure, consistent with the Spanish original (Gil-Monte & Olivares, 2007). The model fit was adequate according to the fit indexes: GFI which achieved a value higher than 0.90, and CFI and NFI which achieved values of 0.95 and 0.93, respectively. Moreover, the fit was good according to the RMSEA, since it did not exceed the 0.05 criterion proposed by Browne and Cudeck (1993). The results indicate adequate psychometric properties of the items in relation to the respective subscales to which they belong. The corrected item-scale correlation values obtained for the items are strong, which indicates that each of the dimensions of the SBI can be considered as a lineal function of the items that make it up. The item which showed the lowest and moderate correlation with the factor was item 11 (*I feel like being sarcastic with some intellectually disabled persons*). The internal consistencies of the four subscales were satisfactory, with all the Cronbach’s alphas ranging from 0.74 to 0.91. The subscales of Enthusiasm toward the job, Psychological exhaustion, and Guilt meet the stringent criterion of 0.80 (Henson, 2001), and the Cronbach’s alpha coefficient for Indolence exceeded 0.70 (Nunnally, 1978).

It can be concluded that the factorial model adequately reproduces the theoretical model of the SBI. This structure supports the theoretical model of the four symptoms of burnout: Enthusiasm toward the job, Psychological exhaustion, Indolence and Guilt, and it confirms that burnout could be a four-dimensional concept, as measured by the SBI. Burnout progresses in a parallel way from low Enthusiasm toward the job to Indolence, and from Psychological exhaustion to Indolence. Indolence is considered as a dysfunctional, rather than effective, coping strategy that is tried after the reappraisal stage. In some cases, negative attitudes on the job, especially towards the people with whom the worker establishes work

relationships, lead to feelings of guilt due to the existence of negative thoughts about others and the negative and cynical way they have treated them (Gil-Monte, 2012).

Taking the size of the sample into consideration, we can conclude that results are stable for Spanish employees working with people with ID. However, more studies are necessary in order to conclude that the results would be the same in this professional group in other countries. A limitation of the present study is that the participants were not balanced in terms of gender (20.20 % of the sample were men).

The relevance of this study is that it provides evidence showing the adequate psychometric properties of an alternative burnout measure to assess burnout in services for people with ID. In order to advance the burnout research, it is important for researchers and practitioners to have an inventory with acceptable psychometric properties and a broader concept of burnout than the traditional one. The SBI points toward recommending the incorporation of the evaluation of feelings of guilt as a symptom of burnout in order to make a more complete identification of individuals affected by critical levels of burnout, and recognize its influence on health disorders (e.g., depression) (Gil-Monte, 2008; 2012).

On the other hand, the SBI offers a theoretical proposal to explain different types of burnout, taking feelings of guilt into consideration (Gil-Monte, 2012), and a model of how and why staff become significantly burned out (Hastings et al. 2004). It contributes to the literature by offering researchers and practitioners an expanded conceptualization of the syndrome, which can facilitate the diagnosis and treatment of individuals with burnout, for example, by evaluating feelings of guilt and other symptoms of burnout in interventions designed to improve social support (Gray-Stanley et al. 2010; Richardson & Rothstein, 2008) and reduce uncertainty (Halbesleben et al. 2006). Furthermore, diagnosis in the initial stages of burnout could prevent the increase in intensity of the symptoms and make earlier recovery possible. Training for staff working with people with ID should incorporate contents to

improve their knowledge of symptoms and teach criteria to identify and prevent the effects of burnout, as a way to improve the quality of service provided.

Future studies should attempt to examine the cross-national validation of the four factor model –i.e., English speaking samples- and establish clinical cut-off scores based on the SBI, in order to analyze the true epidemiological impact of burnout.

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Table 1. *Descriptive statistics and analysis of SBI items.*

Subscale Items	<i>M</i> ( <i>SD</i> )	Corrected item-scale correlations	Skewness	Kurtosis	Alpha if item deleted
<b>Enthusiasm toward the job</b>					
1. I find my work is a stimulating challenge	2.58 (1.04)	0.73	-0.37	-0.46	0.89
5. I see my job as a source of personal accomplishment	2.54 (1.15)	0.78	-0.44	-0.61	0.88
10. I think my job gives me positive experiences	2.87 (1.00)	0.72	-0.81	0.41	0.89
15. I find my work quite rewarding	2.87 (1.04)	0.83	-0.75	0.00	0.87
19. I feel enthusiastic about my job	2.57 (1.11)	0.75	-0.43	-0.63	0.89
<b>Psychological exhaustion</b>					
8. I feel I am overwhelmed by work	1.74 (1.11)	0.69	0.24	-0.60	0.78
12. I feel weighed down by my job	1.62 (1.06)	0.72	0.28	-0.48	0.76
17. I feel physically tired at work	2.02 (1.10)	0.61	0.03	-0.71	0.81
18. I feel emotionally exhausted	1.73 (1.12)	0.63	0.29	-0.66	0.80
<b>Indolence</b>					
2. I don't like taking care of some intellectually disabled persons	0.97 (0.88)	0.53	0.73	0.17	0.69
3. I think many intellectually disabled persons are unbearable	0.92 (0.88)	0.56	1.03	1.17	0.68
6. I think the relatives of intellectually disabled persons are very demanding	1.14 (0.87)	0.49	0.63	0.37	0.70
7. I think I treat some intellectually disabled persons with indifference	0.63 (0.77)	0.48	1.37	2.50	0.70
11. I feel like being sarcastic with some intellectually disabled persons	0.74 (0.93)	0.36	1.35	1.50	0.74
14. I label or classify intellectually disabled persons according to their behaviour	0.82 (0.91)	0.45	1.15	1.25	0.71
<b>Guilt</b>					
4. I worry about how I have treated some people at work	0.97 (0.91)	0.54	1.05	1.25	0.82
9. I feel guilty about some of my attitudes at work	0.91 (0.82)	0.67	0.94	1.31	0.77
13. I regret some of my behaviours at work	0.63 (0.73)	0.67	1.20	1.93	0.78
16. I think I should apologize to someone for my behaviour at work	0.87 (0.76)	0.58	0.92	1.70	0.81
20. I feel bad about some of the things I have said at work	0.88 (0.74)	0.66	0.82	1.43	0.78

*Note.* Item number indicates the position of the item in the questionnaire. The SBI was applied in the Spanish language.

Table 2.

*Model Fit for the SBI*

Model	$\chi^2$	d.f.	RMSEA	GFI	NFI	CFI	AIC
M1 (1 factor)	3014.878	170	0.155	0.579	0.490	0.503	3094.878
M2 (2 factors)	1892.693	169	0.121	0.710	0.680	0.699	1974.693
M3 (3 factors)	1004.624	167	0.085	0.832	0.830	0.854	1090.624
M4 (4 factors)	427.574	164	0.048	0.940	0.928	0.954	519.574

*Note.*  $\chi^2$  = Chi-square; d.f. = degrees of freedom;  $p$  = significance level; RMSEA = Root Mean Square Error of Approximation; GFI = Goodness-of-Fit Index; NFI = Normed Fit Index; CFI = Comparative Fit Index; AIC = Akaike Information Criterion. For all chi-square values,  $P < 0.001$ .

Table 3.

*Descriptive statistics for SBI dimensions, and correlations between dimensions.*

	<i>M (SD)</i>	Sk	Ku	Range	1	2	3	4
1. Enthusiasm toward job	2.68 (0.91)	-0.48	-0.44	0-4	(0.91)			
2. Psychological exhaustion	1.78 (0.90)	0.26	-0.32	0-4	-0.40**	(0.83)		
3. Indolence	0.87 (0.58)	0.69	0.45	0-4	-0.29**	0.32**	(0.74)	
4. Guilt	0.85 (0.61)	0.73	1.30	0-4	-0.07*	0.25**	0.37**	(0.83)

\*\*  $P < 0.001$ ; \*  $P < 0.01$ 

Note. The Cronbach's alpha values are on the diagonal of the correlation matrix.



Figure 1. Covariances and factor loading: Four-factor model.

