



Analysis of the relationship between the Type A Behavior pattern and fear of negative evaluation

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ABSTRACT. Traditionally the Type A Behavior Pattern construct (TABP) has been considered as a risk factor for coronary diseases. In spite of the large number of studies which have demonstrated its effectiveness, in recent years contradictory data as to its proper predictive capacity have appeared. It is currently considered that the TABP components must exert a different sort of influence, as risk factors, in coronary diseases. Diverse studies have related the TABP with other psychological variables; for example, attributive style, extroversion-introversion, type of situation, self-perfectionism, etc. In the present descriptive transversal study, the TABP was evaluated with Fear of Negative Evaluation (FNE). A sample of 152 healthy subjects (76 men and 76 women) was used. The results indicate that the TABP is not entirely related to FNE. However, analyses by components do show significant relationships, and differences are found between men and women, as well. In male subjects, we find negative relationships between FNE and the competitiveness variable, and positive relationships between FNE and the variables for excessive workload, impatience and hostility. In female subjects, there are positive relationships between FNE and impatience and hostility.

KEYWORDS. Type A Behavior Pattern. Fear of Negative Evaluation. Coronary diseases. Evaluation. Descriptive transversal study.

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RESUMEN. Tradicionalmente, el constructo Patrón de Conducta Tipo A (PCTA) ha sido considerado como un factor de riesgo de enfermedades coronarias. A pesar de la gran cantidad de estudios que han demostrado su efectividad, en los últimos años han existido datos contradictorios con relación a su adecuada capacidad predictiva. Actualmente se considera que los componentes del PCTA influyen de una manera diferente, como factores de riesgo, en enfermedades coronarias. Diversos estudios han relacionado el PCTA con otras variables psicológicas, por ejemplo, estilo atributivo, extroversión-introversión, tipo de situación, auto perfeccionismo, etc. En el presente estudio descriptivo transversal se evalúa el PCTA y el temor a la evaluación negativa (FEN). Se utilizó una muestra de 152 sujetos sanos, 76 hombres y 76 mujeres. Los resultados indican que el PCTA no se relaciona globalmente con el FNE. Sin embargo, los análisis por componentes sí arrojan relaciones significativas y se encuentran además diferencias entre hombres y mujeres. En hombres se encuentran relaciones negativas entre FNE y la variable competitividad, y relaciones positivas entre FNE y las variables de sobrecarga laboral, impaciencia y hostilidad. En mujeres se encontraron relaciones positivas entre el FNE e impaciencia y hostilidad.

PALABRAS CLAVE. Patrón de Conducta Tipo A. Temor a la evaluación negativa. Enfermedades coronarias. Evaluación. Estudio descriptivo transversal.

RESUMO. Tradicionalmente o construto de Padrão de Comportamento Tipo A (PCTA) tem sido considerado como um factor de risco para as doenças coronárias. Apesar da grande quantidade de estudos que têm demonstrado o seu efeito, nos anos recentes têm aparecido dados contraditórios em relação à sua adequada capacidade preditiva. Atualmente considera-se que os componentes de PCTA influenciam de modo diferente, enquanto factores de risco, nas doenças coronárias. Diversos estudos têm relacionado o PCTA com outras variáveis psicológicas; por exemplo, estilo atributivo, extroversão-introversão, tipo de situação, auto perfeccionismo, etc. No presente estudo descriptivo transversal avalia-se o PCTA e o medo da avaliação negativa. Utilizou-se uma amostra de 152 sujeitos saudáveis, 76 homens e 76 mulheres. Os resultados indicam que o PCTA não se relaciona globalmente com o medo da avaliação negativa. No entanto, as análises por componentes mostram relações significativas tendo sido encontradas diferenças entre homens e mulheres. Nos homens encontram-se relações negativas entre o medo da avaliação negativa e a variável competitividade, e relações positivas entre medo da avaliação negativa e as variáveis de sobrecarga laboral, impaciência e hostilidade. Nas mulheres encontram-se relações positivas entre o medo da avaliação negativa e a impaciência e hostilidade.

PALAVRAS CHAVE. Padrão de Conduta Tipo A. Medo da avaliação negativa. Doenças coronárias. Avaliação. Estudo descriptivo transversal.

Introduction

The origin of the construct denominated Type A Behavior Pattern (TABP) goes back to the late fifties. Friedman and Rosenman, two American cardiologists, published the first works on certain behaviors and personality traits observed in patients with

ischemic cardiopathy (Del Pino, 1996). The Type A Behavior Pattern has been posed as a risk factor for coronary diseases, but the findings from clinical studies were contradictory (Evans, 1995; Labiano and Brusasca, 2001). In a general sense, this pattern is characterized by the presence in subjects of a high level of competitiveness, ambition and excessive workload with the objective of achieving goals, as well as notably hostile and impatient behavioral expression (Pérez, Sánchez, and Bermúdez, 1989). The Type A Behavior Pattern could be defined as a construct that characterizes individuals who have a highly competitive desire for achievement and recognition, along with a tendency towards hostility and aggression, and an extreme sense of urgency. The Type A person is always seeing objectives and challenges to overcome. He talks fast, acts fast, interrupts and shows signs of impatience (Evans, 1995). The reason for its relationship to coronary disease is not quite clear, but the possibility of the Type A Behavior Pattern's effects being mediated by the activity of the medullar-adrenal sympathetic system has been raised (Myrtek, 1995). It has also been hypothesized that typical behavior of Type A subjects is accompanied by neuro-endocrine pathogenies and cardiovascular responses (Krantz and Manuck, 1984).

One of the most important events along this line of research occurred in 1981. The United States National Institute for the Heart called together specialists on the matter to analyze diverse existing studies and data. It was concluded that the Type A Behavior Pattern is an independent risk factor, comparable in terms of predictive value to all four traditional risk factors together (hypertension, hypercholesterolemia, tobacco abuse and obesity) (Review Panel on Coronary Prone Behavior and Coronary Heart Disease, 1981). From the time of Friedman and Rosenman's postulates, a wide variety of studies have demonstrated the relationship between this pattern and the presence of coronary disease. However, there have also been data to the contrary. So, for example, diverse prospective epidemiological studies since the seventies have shown a strong, consistent association between the TABP and manifestations of coronary disease (Ravaja, Keltikangas-Järvinen, and Keskivaara, 1996), but in spite of these findings, research has declined over recent years. Several long-term epidemiological studies have resulted in failure to find the supposed correlations between the TABP and coronary diseases (Myrtek, 1995) and failure to maintain the status of this construct as it has traditionally been understood: as a risk factor (Palmero, Bрева, Diago, Diez and García, 2002; Ravaja *et al.*, 1996). Although many of these negative results are attributed to methodological considerations and sampling types used (Evans, 1995; Matthews, 1988), there is relative agreement that the different components included in this pattern would exert different influences, as risk factors, in heart disease. Thus, recent research has suggested the aggression/hostility component as a pathogenic core for the TABP and heart disease (Moscoso, 2000; Palmero *et al.*, 2002; Ravaja *et al.*, 1996; Smith, 1992), in arterial hypertension ailments (Labiano and Brusasca, 2001; Spielberger and Moscoso, 1995), or as one of the most "harmful" components, which might have implications on treatment (Evans, 1995).

As a consequence, in the last few years, the study of TABP has had a bi-directional orientation. On the one hand, it has tried to identify the psychological and behavioural variables that could predict future cardiovascular diseases. On the other hand, it has

tried to identify psychological variables that could distinguish Type A behaviour pattern subjects from the rest of the population. The latter research direction has been working with subjects from various age ranges. Llorente (1986) confirmed the fact that Type A subjects showed higher levels of extroversion compared to Type B subjects when he evaluated them using the four scales of Jenkins's Activity Survey (JAS). In the same study, he demonstrated that Type A individuals were more neurotic when the evaluation was carried out using the four JAS scales in an overall way and using just one of the JAS scales; specifically, the one that evaluates hurriedness and impatience. These differences are not found using the rest of the JAS scales separately. In another study (Furnham, 1989) a relationship was found between the measurements of neuroticism, extroversion, the TABP and self-control. Thus, high levels of self-control could indicate high TABP scores. Along this same line of research, Eysenck (1990) breaks down the TABP in its dimensions of neuroticism and extroversion. Type 2 people, defined by high neuroticism and extroversion scores, are characterized by a tendency to consider some objects of high emotional content as the most important cause of their negative tensions and unhappiness. These people would be affected by a greater incidence of coronary disease (Eysenck, 1991). Furthermore, Patel, Weinman, and Gessler (1995) compared two samples of subjects, one sample with Type A subjects and another with Type B subjects, finding that the Type A subjects confronted with photographs of ambiguous facial expressions showed more positive signs of affect. Later analyses indicated that the data found did not depend on the subject's mood. Flett, Hewitt, Blankstein and Dynin (1994) in a study with two samples of subjects, confirmed the existence of an association between the need to reach objectives or goals and self-perfectionism in Type A subjects. Also, TABP subjects are perfectionists in a wide range of situations, including their social relationships. This would generate conflict and hostility in their interpersonal relationships, because they set very high expectations for others.

With respect to attributive style, subjects with the A pattern would have a lower internal causal attribution compared to subjects with the B pattern. These differences in attributive style are only significant in situations of failure. This would be due to their high levels of competitiveness (Pérez-García and Sanjuán, 1996). More recently, Kirkcaldy, Cooper, and Furnham (1999) have reported about the relationship existing between control locus and health. Thus, Type A behaviour pattern subjects with an internal control locus would express bigger satisfaction in their jobs, and Type B subjects, with an external control locus, would show more physical symptoms.

From another perspective, Muñoz, Fernández-Abascal and Labrador (1989) propose the type of situation as one of the variables to be considered in the TABP. In this sense, TABP subjects would be expected to react to frustrating, difficult, moderately competitive events, those obliging them to wait, and especially situations involving a threat to their self-esteem or to their very selves in a clearly different way from Type B subjects. Westra and Kuiper (1996) studied the relationship between dysfunctional cognitions and different forms of psychological maladjustment. In two different studies, they found a relationship between the TABP and different dysfunctional thoughts, such as, for example, evaluation of execution and perfectionism, among others. Finally, De la Fuen-

te and De la Fuente (1997) studied the relationship between the TABP and anxiety both as an overall index and in its dimensions. The findings confirmed this variable as an important element in the construct studied. However, this relationship was not found when an analysis was performed with the TABP as an overall concept. The significant relationships were found when the different components were analyzed separately, resulting in a significant positive relationship with impatience-hostility and no relationship with competition-excessive workload, in males or females. For the objectives of this study, it must be realized that one of the four anxiety factors evaluated was that of anxiety in the face of evaluation. This factor was precisely among the most closely related ones to impatience-hostility in both men and women.

In summary, it seems that the different TABP components contribute different information. So there is now relative consensus that the aggression-hostility component would be one of the indicators to appear most associated with future coronary illnesses. Likewise, current studies suggest that other psychological variables would relate to the TABP, such as, for example, the type of situation (especially if there is a threat to self-esteem), anxiety, interpersonal relationships and some personality variables, among which attributive style and perfectionism stand out.

The objective of this descriptive transversal study (Montero and León, 2002) is to analyze the existing relationship between the Type A Behavior Pattern and another psychological variable that has not received so much attention by itself. This variable is fear of negative evaluation, for which we shall analyze its overall score as well as each of the TABP components. An analysis of the results by sex will also be performed. For the development of this work they have been continued in the measure of the possible one the norms proposed by Bobenrieth (2002).

Method

Participants

The sample was made up of 152 healthy subjects, 76 males with an average age of 22.20 and a standard deviation of 3.02, and 76 females with an average age of 22.96 and a standard deviation of 3.19.

Instruments

- Fear of Negative Evaluation (FNE). This scale was developed to estimate the degree to which people worry about negative evaluations that others may make of them. A high score indicates high fear of negative evaluation and a low score would indicate lack of fear towards the evaluations made by others (Watson and Friend, 1969).
- Social Avoidance and Distress Scale (SAD). The objective of this scale is evaluation of the tendency to avoid social interactions and of the anxiety experienced in such situations. This scale is used along with the previous one (FNE) to complete the assessment of anxiety-producing aspects derived from fear of a negative evaluation by others (Watson and Friend, 1969).

- Jenkins Activity Scale (JASE-H). This scale is the Spanish adaptation of the Student Jenkins Activity Survey (Krantz, Glass and Snyder, 1974). It is made up of 32 items that measure the overall TABP as well as its separate components. It has four sub-scales: Competitiveness, Excessive Workload, Impatience and Hostility (Bermúdez, Pérez-García, and Sánchez-Elvira, 1991).

Procedure

The inventories were administered to the group. All the instruments were administered in the same order, in the same place and at the same time to all the subjects.

Results

To analyze the results we used an analysis of correlation between the different variables (Pearson). To analyze the variables' predictive capacity we used an analysis of regression (Montero and León, 2002).

Relationships between the FNE questionnaire, SAD, TABP and its components

The results indicate that the TABP as measured overall does not relate significantly with fear of negative evaluation nor social avoidance and distress as much in men as in women (see Tables 1 and 2). If we analyze data on the different TABP components, the results of these analyses show the significant relationship profile for both sexes. In female subjects, we found significant positive relationships between fear of negative evaluation and the variables for impatience ($p < .0001$) and hostility ($p < .05$). These significant positive relationships are also found between social avoidance and distress and the same variables: impatience ($p < .0001$) and hostility ($p < .01$). No significant relationship was found for the competitiveness and excessive workload variables on either questionnaire (see Table 1). As for male subjects, significant negative relationships were found between fear of negative evaluation and the competitiveness variable ($p < .05$). This same relationship was found between social avoidance and distress and competitiveness ($p < .01$). Furthermore, males showed significant positive relationships between fear of negative evaluation and the excessive workload ($p < .05$), impatience ($p < .05$) and hostility ($p < .001$) variables, as well as between social avoidance and distress and the impatience ($p < .05$) and hostility ($p < .05$) variables. No relationship was found between social avoidance and distress and the excessive workload variable (see Table 2).

TABLE 1. Represents the correlations between the Jenkins activity scale and the fear of negative evaluation (FNE) and social avoidance and distress (SAD) scales in females (n = 76).

	FNE	SAD
Competitiveness	-	-
Excessive Workload	-	-
Impatience	.48 ****	.49 ****
Hostility	.25 *	.31 **
TABP	-	-

* p < .05 ** p < .01 ***p < .001 **** p < .0001

TABLE 2. Represents the correlations between the Jenkins activity scale and the fear of negative evaluation (FNE) and social avoidance and distress (SAD) scales in males (n = 76).

	FNE	SAD
Competitiveness	-.28 *	-.32 **
Excessive Workload	.24 *	-
Impatience	.27 *	.24 *
Hostility	.39 ****	.28 *
TABP	-	-

* p < .05 ** p < .01 ***p < .001 **** p < .0001

Predictive capacity of the different TABP components

Table 3 shows the results for women. At the same time, a significant predictive capacity is reflected, both for fear of negative evaluation, FNE (p < .0001), and for social avoidance and distress (p < .0001). The only component that adds specific weight for fear of negative evaluation as well as social avoidance and distress is impatience, which relates positively to both FNE (p < .0001) and SAD (p < .0001) (see Table 3). Data on prediction in males are reflected in Table 4. One first outstanding result is the TABP components' predictive capacity, both for the fear of negative evaluation variable (p < .0001), as well as for the social avoidance and distress variable (p < .001). Each component bears specific weight on prediction, shown in the Beta coefficient value. For the fear of negative evaluation variable, competitiveness (p < .01) is negatively related, while hostility relates positively (p < .05). The rest of the components do not appear to add anything to prediction for either variable. Besides, for social avoidance and distress, the only variable that seems to add specific weight to the prediction is competitiveness, which is also negatively related (p < .01) (see Table 4).

TABLE 3. Analysis of regression between the Jenkins activity scale and the fear of negative evaluation (FNE) and social avoidance and distress (SAD) scales in females (n = 76).

	<i>Competitiveness</i> (Beta Index)	<i>Excessive Workload</i> (Beta Index)	<i>Impatience</i> (Beta Index)	<i>Hostility</i> (Beta Index)	F
FNE	-	-	.49****	-	12.92**
SAD	-	-	.62****	-	10.87**

* p < 0,05 ** p < 0,01 ***p < 0,001 **** p < 0,0001

TABLE 4. Analysis of regression between the Jenkins activity scale and the fear of negative evaluation (FNE) and social avoidance and distress (SAD) scales in males (n = 76).

	<i>Competitiveness</i> (Beta Index)	<i>Excessive Workload</i> (Beta Index)	<i>Impatience</i> (Beta Index)	<i>Hostility</i> (Beta Index)	F
FNE	-.34**	-	-	.25*	7.94****
SAD	-.32**	-	-	-	5.56***

* p < .05 ** p < .01 ***p < .001 **** p < .0001

Discussion

The initial objective of this article was to relate the Fear of Negative Evaluation variable, for which we used the FNE and SAD questionnaires, with the TABP. A preliminary analysis of the data obtained indicates that the overall TABP does not relate to fear of negative evaluation as measured on both scales. Nevertheless, results are not the same when it comes to analyzing the different TABP components separately, in agreement with other studies (De la Fuente and De la Fuente, 1997). This would support the idea maintained over recent years, that the overall TABP does not seem to relate significantly with certain variables, whereas some of its components do, as the data from this study demonstrate. Differences were found between men and women in terms of which TABP components relate to fear of negative evaluation. In male subjects, all the TABP components are related to a certain extent with this variable as evaluated using the FNE questionnaire, but when it is evaluated using the SAD we found no significant relationships with the excessive workload component. In the case of female subjects, only two of the TABP components relate to Fear of Negative Evaluation: specifically, impatience and hostility. Subsequently, a more detailed analysis was carried

out, in an attempt to see which TABP components were good predictors for fear of negative evaluation as measured on both scales. In men using the FNE questionnaire, the TABP components shown to be appropriate predictors were competitiveness and hostility. On the SAD questionnaire, the only component shown to be a good predictor was competitiveness. With this variable we found a negative relationship on both questionnaires. In women, the only TABP component that predicted fear of negative evaluation on both questionnaires was impatience. Finally, the data from this study demonstrate that different components are related to fear of negative evaluation; especially some more than others. This relationship is more prevalent in men than in women.

Hence, the data suggest that the Type A Behavior Pattern construct would relate to elements which might threaten self-esteem. Future studies will confirm which of the known factors are better predictors for coronary disease, and if they should be enhanced with others. The data suggest that with respect to the TABP further research is necessary to analyze its relationship to other variables, and that FNE could be a variable to take into account.

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