CARACTERÍSTICAS DE PERSONALIDAD PREDICTORAS DEL AFRONTAMIENTO EN ADOLESCENTES DE CONTEXTOS MARGINADOS

Blanca Estela Barcelata Eguiarte*, Quetzali Y. Luna Martínez, Emilia Lucio Gómez- Maqueo y Consuelo Durán Patiño
Universidad Nacional Autónoma de México

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Resumen

El propósito de este estudio fue examinar el papel predictivo de las características de personalidad sobre las estrategias de afrontamiento. Participaron de manera intencional y voluntaria 595 estudiantes de 13 a 18 años (M_{edad}=15.8; *DE*=1.38) de secundaria y bachillerato público de zonas marginadas del oriente de la Ciudad de México: 286 hombres (47.5%) y 309 mujeres (52.5%). Se realizó un estudio transversal, ex post facto, de tipo correlacional. Se aplicó el MMPI-A, el Cuestionario de Afrontamiento para Adolescentes (CA-A) y una ficha sociodemográfica. Se realizaron análisis descriptivos de las variables sociodemográficas, de las características de personalidad y de las estrategias de afrontamiento. Se llevaron a cabo análisis de correlación y multivariados, para determinar el grado de asociación entre las variables y el valor predictivo de las características de personalidad sobre las estrategias de afrontamiento. Los resultados muestran que las características de personalidad no sólo se relacionan con las estrategias de afrontamiento, sino que características como ansiedad, depresión, enojo, conducta antisocial, enajenación, tendencia al alcoholismo, inmadurez y consumo de substancias influyen en el uso de estrategias de afrontamiento disfuncionales, como rumiación, evitación, respuestas fisiológicas y conducta autolesiva; mientras que menor inmadurez, capacidad de contención o represión predicen estrategias funcionales como la solución de problemas. Se discuten los resultados por sus implicaciones para el diseño de programas de prevención y promoción de salud mental en contextos marginales.
*Palabras clave***:** adolescencia, personalidad, afrontamiento, estudiantes.

PERSONALITY CHARACTERISTICS AS PREDICTORS OF COPING IN ADOLESCENTS FROM MARGINAL BACKGROUNDS

Abstract

The purpose of this study was to examine the predictive role of personality traits on coping strategies. Participants were 595 adolescent students, 286 boys (47.5%) and 309 girls (52.5%), aged 13 to 18 years (M_{age}=15.8 *SD*=1.3) attending public and private schools, from marginal high-risk metropolitan areas from México City. A cross-sectional, ex post facto, correlational design was used. The MMPI-A, the Adolescent Coping Questionnaire (ACQ), and a socio-demographic form, were applied. Correlational and multivariate analyses were carried out to determine the degree of association among the variables and the predictive power of personality characteristics on coping strategies. Results show that most personality characteristics are not only related to coping strategies, but that traits such as anxiety, depression, anger, antisocial behavior, alienation, substance abuse proneness and immaturity, influence the use of dysfunctional coping strategies such as rumination, avoidance, physiological responses and self-injurious behavior; while less immaturity, containment or social-control capability predict functional strategies and problem solving. These results suggest that personality dimensions play an important role in the use of coping strategies during adolescence and are discussed in terms of the implications for the design of mental health prevention and promotion programs in marginal settings.
Key words: adolescence, personality, coping, students.

* Universidad Nacional Autónoma de México. Facultad de Estudios Superiores Zaragoza, Carrera de Psicología, Av. Guelatao 66. Col. Ejército de Oriente. Iztapalapa, 09230. México, D. F., México. Tel. (55) 5623-0597. bareg7@hotmail.com.
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CARACTERÍSTICAS DE PERSONALIDADE PREDITIVA DO ENFRENTAMENTO EM ADOLESCENTES EM CONTEXTOS MARGINALIZADOS

Resumo

O propósito deste estudo foi examinar o papel preditivo das características de personalidade sobre as estratégias de enfrentamento. Participaram da amostra de maneira intencional e voluntária 595 estudantes entre 13 e 18 anos (M_{idade}=15.8; *DE*=1.38) do ensino fundamental e médio público de áreas marginalizadas do leste da Cidade do México: 286 homens (47,5%) e 309 mulheres (52,5%). Trata-se de um estudo transversal, *ex post facto*, de tipo correlacional. Aplicaram-se o MMPI-A, o Questionário de Enfrentamento para Adolescentes e uma ficha sociodemográfica. Realizaram-se análises descritivas das variáveis sociodemográficas, das características de personalidade e das estratégias de enfrentamento. Além disso, análises de correlação e multivariados, para determinar o grau de associação entre as variáveis e o valor preditivo das características de personalidade sobre as estratégias de enfrentamento. Os resultados mostram que as características de personalidade não somente se relacionam com as estratégias de enfrentamento, mas também com características como: ansiedade, depressão, raiva, comportamento antissocial, alienação, tendência ao alcoolismo, imaturidade e consumo de substâncias, que influenciam no uso de estratégias de enfrentamento disfuncionais, como ruminação, evitação, respostas fisiológicas e comportamento autolesivo; enquanto menor imaturidade, capacidade de contenção ou repressão predizem estratégias funcionais como a solução de problemas. Discutem-se os resultados por suas implicações para o desenho de programas de prevenção e promoção da saúde mental em contextos marginalizados.
Palavras-chave: adolescência, personalidade, enfrentamento, estudantes.

The World Health Organization (WHO, 2011) estimates that 30% of the world population is young people, as well as in Latin America and the Caribbean. In Mexico, they represent the major segment of the population pyramid (Pan American Health Organization, 2011). The National Population Council (CONAPO, 2012) estimates that in Mexico approximately 55% of youngsters live in marginal contexts and urban marginalization is a macro-structural factor which affects adolescent development. Although adolescents are perceived as a healthy group, worldwide surveys report that almost 20% experience a disabling problem (WHO, 2011). The epidemiological profile in Mexico shows that around 40% of adolescents present a mental health issue, being anxiety disorders in the first place, impulse control disorders in the second, mood disorders in the third, and substance abuse disorders in the last place (Benjet et al., 2009). Some of the emotional and behavioral problems are associated with personality traits like sensation seeking (Palacios, Sánchez, & Andrade, 2010), impulsivity and oppositional behavior (Calvete & Estévez, 2009; Vinet, Faúndez, & Larraguibel, 2009), depressive symptomatology and suicidal ideation (Lucio & Hernández, 2009; Palacios et al., 2010).

According to the ecological-transactional model of development (Rutter, 2007) marginal contexts imply a variety of risks; nevertheless, from a preventive approach, personality and coping are two key variables for adaptation, and they can also be modifiable risk or protective factors (Carver & Connor-Smith, 2011). Moreover, personality contributes to stress perception and management (Seiffge-Krenke, 2011), whereas coping implies a range of abilities that can be taught (Frydenberg, Eacott, & Clark, 2008). Lazarus and Folkman's (1991) transactional model defines coping as cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as exceeding the resources of the person. Based on this model, other models for adolescents coping have been proposed (Connor-Smith & Compas, 2004; Frydenberg et al., 2008; Seiffge-Krenke, 2000). However, there is controversy about whether coping implies a generalizable style for facing stressful or problematic situations, especially in adolescence, or represents a set of differentiated strategies depending on the situation. The first position implies a dispositional approach (Moos & Holahan, 2003) in which coping refers to relatively stable and lasting personal patterns that establish the use of certain strategies, whereas for the second position, coping encompasses specific processes which may vary depending on the particular stressful situation (Lazarus & Folkman, 1991).

Connor-Smith and Compas (2004) re-define coping as a personality process; they consider that unconscious, automatic and voluntary responses are features related to coping, making it predictable. They classify coping as: a) e*ngagement*: consisting of active attempts to manage a stressful situation. It is divided into primary control, aimed to change the source of stress or the emotions related to strategies like problem solving; and secondary control, which enables adaptation to stress through strategies like cognitive restructuring; b) *disengagement*, when there is a detachment from the stressful situation. Meanwhile, Seiffge-

Krenke (2007) divides adolescent coping into *functional* or approaching the stressor, and *dysfunctional* when the stressful situation is avoided. Both models state that approaching, engagement or functional coping are associated with emotional wellbeing and less mental health problems, whereas avoidant, disengagement or dysfunctional coping are related to mental health issues.

There is evidence that avoidant, dysfunctional or disengagement coping is associated with depressive traits (Seiffge-Krenke, 2000), reactivity to stress (Connor-Smith & Compas, 2004), as well as to self-injurious behavior (Castro, Planellas, & Kirchner, 2014). Data from a meta-analysis (Connor-Smith & Flashbart, 2007) point out that engagement coping is positively related to personality traits (also named factors) like awareness, openness to experience and extraversion; and negatively to disengagement coping. Contreras, Espinosa and Esguerra (2009) uphold that problem solving, positive reappraisal and social support seeking are negatively related to neuroticism, and positively to negative self-focus and emotional expression. On the other hand, extraversion, likeability and consciousness are associated with active, engagement and rational strategies, suggesting that sociable, kind, formal and responsible adolescents are more likely to show a good fit. Other studies (Cassaretto, 2010; Hambrick & McCord, 2010) point out that personality traits such as achievement orientation, effort, happiness and altruism, are characteristics of adolescents with proactive coping, characterized by being goal-oriented and perceiving stressful factors as a challenge. Neuroticism, anxiety and hostility are related to dysfunctional coping strategies, showing more emotional instability.

On the other hand, Jang, Thordarson, Stein, Cohan and Taylor (2007) highlight that coping is not just the result of the expression of personality traits, but can also be a moderator, and even a predictor, of adolescent adjustment, as shown in other studies (Castro et al., 2014) and that personality could be a mediator of coping flexibility that can impact on the preference of certain strategies, which suggests a reciprocal relation between both variables (Geisler, Wiedig-Allison, & Weber, 2009). There is relatively little research linking coping and personality with marginal population, even though the risk seems to work as a waterfall and by accumulation. They also point out the importance of both variables in adjustment, even in adverse environments (Rutter, 2007). Davey, Eaker and Walters (2003) report that the combination of traits such as agreeableness, extraversion and high self-esteem in addition to positive coping is associated with compensatory mechanisms for resilience in adolescents from a low socioeconomic status.

Other studies show the relationship between dysfunctional coping and behavioral problems in adolescents from marginal contexts (Elgar, Arlett, & Groves, 2003) and the protective role of religion and spirituality over delinquency in high-risk environments (Salas-Wright, Olate, & Vaugh, 2013). In summary, there is still controversy about the nature of the relationship and predictive function of personality with coping in adolescence in terms of the predominance of one variable over the other. Likewise, there is little evidence of the relationship between personality and coping in marginalized populations despite their importance for adaptation and the design of preventive programs. Therefore, the aim of the present study was to examine the predictive capacity of personality traits on coping strategies in a group of scholar adolescents from marginal settings.

METHOD

Type of study

A cross-sectional, ex post facto, predictive correlational study was conducted

Participants

Participants were 595 adolescents selected through a non-probabilistic and intentional sampling method (47.5% men, 52.5% women), aged 13 to 18 years (M_{age}=15.8; *DE*=1.38).They were chosen from a larger group of 667 students attending public junior (50.1%) and senior (49.9%) high schools located in the "*Delegación Iztapalapa*" and four municipalities from East Metropolitan Area of Mexico City. This location is characterized by low rates of development and high degrees of marginalization (CONAPO, 2012), aspects used as indicators of marginalization which is considered a contextual variable in this study.

Instruments

Question booklet from the MP6-11 project entitled "Prevention and support for UNAM high-school students" (Lucio, Durán, Barcelata, & Hernández, 2007). Only the socio-demographic section was used, consisting of 33 multiple-choice items exploring socio-demographic characteristics of the adolescent and his/her parents, such as gender, age, educational level, occupation, marital status of the parents and also family.

Coping Questionnaire for Adolescents (CA-A for its Spanish acronym). Instrument developed for assessing coping strategies in Mexican adolescents (Lucio & Villarruel, 2008) based on Connor-Smith and Compas (2004) and Seiffge-Krenke (2000) models. It consists of 45 Likert type items (5 points scale from 1= I never do it, to 5= It is a lot of what I do) distributed in eight factors (global α =.89; 51.40% of explained variance): 1) Problem Solving

(α =.88) involves directed actions aimed to fix the situation; 2) Physiological Responses (α =.83) reflecting physiological arousal to the stressor; 3)Rumination (α =.72) includes repetitive thoughts; 4) Avoidance (α =.70) expresses denial of problem; 5) Social Support Seeking (α =.50) comprises asking for help; 6) Distraction (α =.88) implies distancing through relaxing situations; 7) Self-Harmful Behavior (α =.70) actions directed to reduce the strain; and 8) Religiousness (α =.56) religious beliefs that reduce stress.

Minnesota Multiphasic Personality Inventory for Adolescents (MMPI-A). The version for Mexican population (Lucio, 1998) was used. It consists of 478 dichotomous true/false items which are divided into four types of profiles or scales that assess personality characteristics and adaptation: 1) Validity Scales, assess the way of responding to the test, indicating the reliability and validity of the data; 2) Clinical scales, assess personality traits and psychiatric symptomatology like depression, anxiety, schizophrenia, antisocial behavior, among others; 3) Content scales, detect specific contents such as low self-esteem, anger, obsessive traits, alienation; and 4) Supplementary scales, provide information about the maturity level of the adolescent, as well as the tendency to, acceptance of, and vulnerability to alcohol-and-drug use.

Procedure

Marginalization was considered as a contextual variable determined by developmental indices and degrees of marginalization, provided by the National Population Council (CONAPO, 2012), for each of the municipalities belonging to the Mexico City West Metropolitan Zone, where the schools are located. Permission from the school authorities of municipalities with low rates and medium degrees of marginalization was requested. So prior to implementation, informed assents were provided to ensure the voluntary and anonymous participation of adolescents. Instruments were administered in groups, in a 120-minute session with a 15-minute recess. Just 595 from the initial 667 students were included, those who fulfilled the MMPI-A validation criteria (L≤T70; F ≤T90 y K≤T70; VRIN≤7; TRIN≤13) according to the corresponding parameters (Butcher et al., 1992; Lucio, 1998). Descriptive analyses of socio-demographic, personality and coping variables were conducted, as well as Kolmogorov-Smirnov normality tests. Binary correlation (Pearson´s product-moment) analyses between the personality traits and coping strategies were carried out. Subsequently, a multiple regression analysis (*stepwise method*) was carried out to assess the predictive capacity of the personality traits on coping strategies. Only the MMPI-A scales that showed significant correlations with coping strategies from the CA-A with r ≥.300, were introduced as dependent or criterion variables. Statistical analyses were carried-out with the SPSS v. 19.

RESULTS

First, basic socio-demographic characteristics of the adolescents and their families are described, according to the data provided by the adolescents themselves. Then, the sample normality, subsequent personality and coping descriptive analyses in T scores (standardized) are presented, as well as the respective correlational analyses, prior to the multiple regression analyses.

Socio-demographic and contextual sample characteristics

The sample consisted of 595 adolescents, 286 men (47.5%) and 309 women (52.5%), aged 13 to 18 years (M_{age}=15.8; *DE*=1.38). 56.1% (n=339) of them were aged between 13-15, and 43.9% (n=295) were aged between 16 18 years. They were selected from public junior high-schools (n=300; 51.7%) and senior-high schools (n= 295; 48.3%) of the *Iztapalapa Delegation* of Mexico City and four neighboring municipalities belonging to the East Metropolitan Area of Mexico City. The schools are located in *Chalco, Los Reyes, Chicoloapan* and *Valle de Chalco*, which have low rates and levels of marginalization ranging from 1.10318 to -1.22461, except *Iztapalapa* that shows a very low index and rate of marginalization corresponding to -1.77654 (CONAPO, 2012). Other data show that 98.5% of adolescents are single and just students; 49.6% receive from $1 to $10 to spend (around half dollar); 33.6% do not receive any money and 16.8% receive from $10 to $19 (one dollar value approximately)[2]; 58% move on foot or bike and 66.2% have access to public health services.

Regarding family characteristics, Table 1 shows that most fathers and mothers are between 30 to 50 years old; more than a half of the parents attended only elementary school; a little more than the third part attended high-school and a minimum part did not study at all. Likewise, more than half of the parents are employees-workers, whereas mothers are housewives. Moreover, 61% of adolescents' families are nuclear, 22% are single-parent families, 11% are extended families, and 6% have another type of family structure. In 51.5% of the families the main provider is the father; in 27.6% of the cases both parents contribute to the family income; in 14.6 , the mother is the only economic support; while in 6.3%, other family members contribute to family income.

2 One dollar = $17.00 Mexican pesos.

Table 1.
Sociodemographic characteristics of adolescent´s parents

Variables	Father		Mother	
	f	%	*f*	%
Age				
< 30	8	1.3	17	2.9
30-40	212	35.6	302	50.8
41-50	223	37.5	203	34.1
51-60	68	11.4	37	6.2
Not known	79	13.3	36	6
Education				
Non studies	13	2.2	19	3.2
Elementary school	354	59.5	392	65.9
Middle school	200	33.7	174	29.2
Not know	28	4.7	10	1.7
Occupation				
Unemployment	11	1.8	11	2.8
Employment-worker	340	57.2	156	26.3
Housewife	-	-	301	50.6
Others	215	36.2	124	20.8
Not know	29	4.8	3	.5

Description of personality and coping

Values of Kolmogorov-Smirnov normality test suggest a normal distribution in most of the MMPI-A scales that describe personality traits, which ranged from D=1.123 to D=1.335 (p>.05) except for Schizophrenia, Bizarre Mentation, Social Discomfort, Proneness and Alcohol/ Drug Problems Acknowledgement scales, with alpha values below .05 which ranged from .048 to .049. In the case of coping strategies, indexes ranged from D= .998 to D= 1.479 (p>.05), except Distraction (p=049). Those variables with marginal p values where normalized through logarithmic transformation in order to achieve normality or normal distribution (Pardo & Ruiz, 2005) and then obtain the Pearson r coefficients between all personality and coping variables.

In table 2 it can be seen that T values for all MMPI-A scales are within the normality range (T≤65). In the case of Hypochondriasis, Hysteria, Paranoia and Schizophrenia clinical scales associated with somatization, anxiety, social susceptibility, mistrust, suspiciousness and alienation, respectively, are those that present higher elevations in T scores. Content scales with higher T values were Health Concerns, Bizarre Mentation and Low Aspirations, which denote somatization, worry and health problems, failure about sense of reality, lack of projects and future projected goals. With respect to supplementary scales, Immaturity, Repression and Alcohol/Drug Problems Acknowledgement scales were those with the highest scores, showing emotional restraint, alcohol use issues, as well as presence of immaturity traits with respect to other adolescents of their own age.

Table 2.
Means and standard deviations for T scores of MMPI-A: Clinical, content and supplementary scales

Clinical Scales											
	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma	Si		
Mean	57.91	56.18	54.99	56.12	54.74	54.18	54.63	51.18	52.02		
SD	11.00	10.47	10.76	10.3	11.67	9.25	10.94	10.19	8.65		
Content Scales											
Mean	ANX	OBS	DEP	HEA	ALN	BIZ	ANG	CYN	LSE	LAS	SOD
SD	51.3	49.9	51.7	56.6	52.63	53.9	49.6	49.2	52.0	55.5	52.4
Mean	9.8	10.6	10.1	11.6	10.00	11.4	10.1	10.3	9.7	10.3	9.1
Supplementary Scales											
	A	R	MAC	ACK	PRO	IMM					
Mean	53.06	55.80	51.83	54.70	51.59	56.72					
SD	10.75	11.42	10.05	10.58	9.82	11.58					

Note: N=595. Clinical Scales: Hypochondriasis (Hs), Depression (D), Hysteria (Hy), Psychopathic Deviate (Pd), Paranoia (Pa), Psychasthenia (Pt), Schizophrenia (Sc), Hypomania (Ma), Social Introversion (Si). Content Scales: Anxiety (ANX), Obsessiveness (OBS), Depression (DEP), Health Concerns (HEA), Alienation (ALN), Bizarre Mentation (BIZ), Anger (ANG), Cynicism (CYN), Low Self-Esteem (LSE), Low Aspirations (LAS), Social Discomfort (SOD). Supplementary Scales: Anxiety (A), Repression (R), MacAndrew Alcoholism (MAC), Alcohol/Drug Problem Acknowledgement (ACK), Alcohol/Drug Problem Proneness (PRO), Immaturity (IMM).

Regarding coping, Table 3 shows T scores pointing out that Self-Harmful Behavior, Rumination and Avoidance are the three most frequently used coping strategies.

Table 3.
Means and standard deviations for T scores of ACQ: Coping strategies

Scales	**PS**	**PR**	**R**	**A**	**SSS**	**D**	**SHB**	**Re**
Mean	46.08	48.65	52.69	51.97	48.39	47.21	53.23	47.79
SD	9.456	8.147	10.353	10.163	9.407	10.480	9.622	9.517

Note: N=595. Problem Solving (PS), Physiological Responses (PR), Rumination (R), Avoidance (A), Social support seeking (SSS), Distraction (D), Self-Harmful Behavior (SHB), Religiouness (Re).

Association between personality and coping

Table 4 shows correlations with statistical significance ($p<.001$; $p<.05$) between the majority of clinical scales and dysfunctional coping strategies, with low (.110) to moderate-high values (.470), especially with Rumination and Self-Harmful Behavior.

Table 4.
Correlations among clinical scales of the MMPI-A and coping strategies

Scales	Problem Solving PS	Physiological Responses RF	Rumination R	Avoidance A	Socialsup-portSeeking SSS	Distraction D	Self-Harmful Behavior SHB
Hypocondriasis (Hs)	-.274**	.207	**.339****	.274**	.172**	-.189**	**.347****
Depression (D)	-.263**	.122	.234**	.256	-.181**	-.219**	-
Hysteria (Hy)	-.274**	.137	.089	.099*	-.121**	-.229**	-
Psychopathic Deviate (Pd)	-.295**	.150**	**.384****	.295**	.265**	-	**.355****
Paranoia (Pa)	-.218**	.157**	.291**	.199**	-.187**	-.110*	**.381****
Psychasthenia (Pt)	-.199**	**.348****	**.483****	.192**	-.184	-	**.362****
Schizophrenia (Sc)	-.253**	.296**	**.428****	.277**	-.244	.178	**.429****
Hypomania (Ma)	.056	.124**	.265**	.229	-.139**	.110*	.220*
Social Introversion (Si)	-.244**	.134	.257**	.174	-.149**	-.165**	.257**

Note: * Significant level correlation 0.05 (bilateral).
** Significant level correlation 0.01 (bilateral).

There are salient moderate-high positive correlations of Hs (physical symptomatology), Pt (anxiety, perfectionism, worry), Pd (antisocial behavior), and Sc (alienation and socialization problems) with dysfunctional strategies as Rumination and Self-Harmful Behavior, which also correlate positively with Pa (suspiciousness, thinking problems, mistrust and resentment). On the contrary, there are negative correlations of clinical scales with functional strategies such as Problem Solving, with the exception of Ma (impulsivity, exacerbated mood, hyperactivity), and with Social Support Seeking, except for Hs and Pd. Religiousness did not correlate with any of the clinical scales.

Table 5.
Correlations among content scales of the MMPI-A and coping strategies

Scales	Problem Solving PS	Physiological Responses RF	Rumination R	Avoidance A	Social Support seeking SSS	Distraction D	Self-Harmful Behavior SHB
ANX	-.180**	**.333****	**.412****	**.316****	.173**	-.018	**.338****
OBS	-.099**	**.301****	**.373****	.133**	.114**	.089*	.250**
DEP	-.254**	.266**	**.470****	**.304****	-.237**	-.077	**.399****
HEA	-.259**	.215**	**.302****	**.337****	-.176**	**-.377****	**.392****
ALN	-.241**	.144**	**.333****	.161**	-.249**	-.056	**.331****
BIZ	-.086*	.228**	.267**	-.231**	-.123**	.024	**.307****
ANG	-.121**	**.349****	**.348****	-.126**	-.141**	.092*	.199**
CYN	.060	.180*	.232**	.085*	-.057	.102*	.090*
LSE	**-.308****	**.323****	**.351****	.281**	-.211**	-.089*	**.361****

Continued table 5

Scales	Problem Solving PS	Physiological Responses RF	Rumination R	Avoidance A	Social Support seeking SSS	Distraction D	Self-Harmful Behavior SHB
LAS	**-.373****	.029	.161**	.093*	-.299**	-.276**	.186**
SOD	-.177**	.227	.132**	.032	.126**	-.247**	.192**

Note: Anxiety (ANX), Obsessiveness (OBS), Depression (DEP), Health Concerns (HEA), Alienation (ALN), Bizarre Mentation (BIZ), Anger (ANG), Cynicism (CYN), Low Self-Esteem (LSE), Low Aspirations (LAS), Social Discomfort (SOD).
* Significant level correlation 0.05 (bilateral).
** Significant level correlation 0.01 (bilateral).

Table 5 shows positive moderate correlations (p<.001; p<.05) between most of the content scales and dysfunctional, disengagement strategies, such as Physiological Response, Rumination, Avoidance and Self-Harmful Behavior. Distraction presents low correlation indices, mostly negative, but significant; the highest ones are Health Concerns, Low Aspirations and Social Discomfort. There were no significant correlations with Religiousness, except for Limited Aspirations (-.157; *p*<.001).

Table 6.
Correlations among supplementary scales of the MMPI-A and coping strategies

Scales	Problem Solving PS	Physiological Responses RF	Rumination R	Avoidance A	Social supportSeeking SSS	Distraction D	Self-Harmful Behavior SHB
A	-.131**	.376**	.417**	.166**	.453**	.035	.397**
R	-.122**	.310**	.174**	-.117**	-.151**	-.168**	-.080
MAC	-.070	.230**	.271**	.167**	.167**	-.094*	-.221**
ACK	-.244**	.136**	.264**	206**	-.208**	-.019	-.310**
PRO	-.251**	.137**	.379**	.179**	-.361**	.002**	-.163
IMM	-.346**	.161**	.359**	.252**	-.322**	-.101*	-. 372**

Note*:* Anxiety (A), Repression (R), MacAndrew Alcoholism (MAC), Alcohol/Drug Problem Acknowledgement (ACK), Alcohol/Drug Problem Proneness (PRO), Immaturity (IMM).
* Significant level correlation 0.05 (bilateral).
** Significant level correlation 0.01 (bilateral).

Anxiety, Alcohol/Drug Problem Proneness and Immaturity supplementary scales show positive correlations with dysfunctional or disengagement strategies as Rumination and Self-Harmful Behavior, and negatively with functional or engagement strategies as Problem Solving and Social support seeking (See Table 6). There were no significant correlations between these scales and Religiousness.

Table 7.
Predictive models of coping strategies

Criteria Variables	Model	R	R^2	AR^2	F	Durbin-Watson
Problem Solving	6	.448	.201	.199	22.208**	2.021
Physiological Responses	6	.438	.192	.187	20.920**	1.933
Rumination	4	.511	.261	.254	47.042**	1.911
Avoidance	2	.289	.084	.080	24.369**	1.936
Social support seeking	4	.399	.159	.149	25.191**	1.950
Distraction	4	.287	.082	.076	11.974**	1.883
Self-Harmful Behavior	5	.474	.225	.201	30.850**	1.874

Note: *p<.05; **p<.001

Final regression models that present the best solution for each of the coping strategies are shown in table 7. In general, values show significant data with R^2 determination coefficient whose values indicate that the model for Rumination is the one with the best fit and explains a greater proportion of the variance (26%) followed by the Self-Harmful Behavior model which explains 22.5% of it. For Problem Solving, the model explains 20% of the variance and 19% for Physiological Responses; whereas for Social support seeking, the model only explains 16% of the variance. The weakest models are Avoidance and Distraction, with a low percentage of explained variance (8%).

The fittest model coefficients (M) of personality variables that predict each coping strategy are shown in Table 8. Characteristics as Immaturity, Repression, Low Self-Esteem, Anxiety, PRO and Depression influence negatively on Problem solving. The β coefficients show that Anger, Anxiety, Health concerns and Repression predict positively Physiological Responses, although Alienation may be a predictor in an inverse way. The fourth model shows that depressive symptomatology together with anxiety, psychopathic behavior and low self-esteem are predictors of Rumination. Schizoid traits together with anxiety predict Avoidance. Alcohol/Drug Problem Proneness, as well as Immaturity contributes negatively to social support seeking, and positively to alcoholism. Health Concerns, Low Self-Esteem, and Anxiety explain the use of Distraction. Finally, Health Concerns, Depression, Hypochondriasis and Psychopath deviation are direct significant predictors of Self-Harmful Behavior, with the exception of Schizophrenia.

Table 8.
Regression coefficients of personality models for coping strategies

Criteria Variables	M	Predictive Variables	β	ET	$\beta(exp)$	t	Sig.	95% CI	
Problem Solving		(Constant)	77.110	4.141		18.621	.000	68.975	85.244
		INM	-.204	.064	-.207	-3.194	.001	-.329	-.079
		R	-.125	.042	-.139	-2.991	.003	-.207	-.043
	6	LSE	-.293	.070	-.274	-4.198	.000	-.430	-.156
		A	-.300	.085	-.282	-3.532	.000	-.133	.467
		ACK	-.107	.047	-.103	-2.256	.024	-.200	-.014
		DEP	-.148	.074	-.144	-1.995	.047	-.295	-.002

Continued table 8

Criteria Variables	M	Predictive Variables	*β*	ET	*β(exp)*	*t*	Sig.	95% CI	
Physiological Responses	6	(Constant)	39.846	3.821		10.428	.000	32.340	47.353
		ANG	.189	.050	.208	3.790	.000	.091	.287
		ANX	.216	.055	.232	3.953	.000	.108	.323
		ALN	-.145	.049	-.159	-2.933	.004	-.242	-.048
		R	.130	.039	.165	3.362	.001	.206	.054
		HEA	.136	.040	.174	3.401	.001	.058	.215
Rumination	4	(Constant)	22.444	2.410		9.313	.000	17.710	27.178
		DEP	.242	.073	.237	3.309	.001	.099	.386
		Pt	.307	.069	.304	4.416	.000	.170	.443
		Pd	.132	.047	.131	2.777	.006	.039	.225
		LSE	-.139	.061	-.132	-2.305	.022	-.258	-.021
Avoidance	2	(Constant)	38.422	2.239		17.162	.000	34.024	42.820
		Es	.394	.075	.425	5.227	.000	.246	.543
		Pt	.173	.081	.174	2.142	.033	.331	.014
Seeking Social Support	4	(Constante)	68.366	2.433		28.095	.000	63.586	73.146
		ACK	-.202	.046	-.215	-4.340	.000	-.293	-.110
		MAC	.118	.041	.135	2.858	.004	.037	.199
		IMM	-.111	.053	-.125	-2.095	.037	-.215	-.007
Distraction	4	(Constant)	61.627	4.235		14.550	.000	53.307	69.947
		HEA	-.122	.044	-.136	-2.751	.006	-.210	-.035
		R	-.099	.046	-.110	-2.139	.033	-.190	-.008
		LSE	-.268	.069	-.250	-3.913	.000	-.403	-.134
		A	.232	.076	.217	3.040	.002	.082	.381
Self-Harmful Behavior	5	(Constant)	21.683	2.747		7.894	.000	16.287	27.079
		Sc	-.097	.080	.092	1.217	.224	-.060	.254
		HEA	.443	.100	.445	4.448	.000	.247	.638
		DEP	.198	.077	.172	2.561	.011	.046	.350
		Hs	.297	.102	-.281	-2.918	.004	.497	.097
		Pd	.123	.058	.109	2.126	.034	.009	.237

Note: N=595. Hypocondriasis (Hs), Psychopathic Deviation (Pd), Psychasthenia (Pt), Schizophrenia (Sc), Anxiety (ANX), Depression (DEP), Health Concerns (HEA), Alienation (ALN), Anger (ANG), Low Self-Esteem (LSE), Anxiety (A), Repression (R), MacAndrew Alcoholism (MAC), Alcohol/Drug Problem Proneness (PRO), Immaturity (IMM).

DISCUSSION

The aim of this study was to examine the predictive power of personality traits on coping strategies of school adolescents from marginal backgrounds and therefore it was important to characterize the sample in this regard. The fact that adolescents are from marginal contexts, according to marginalization indices, is supported by some data (CONAPO, 2012). It is observed that some socio-demographic characteristics of the families can be considered as risk, with respect to economic marginalization markers (Costa et al., 2005; Davey et al., 2003). For example, schooling level of most parents tends to be low and a high percentage of them are employees/workers. A high number of mothers are the only providers and in more than a quarter of families both parents work and contribute to family income. As well, many adolescents do not receive any money to spend, move on foot or bike, and most of them attend public health services. With respect to personality traits, results show that T scores of clinical content and supplementary scales do not exceed the norm. However, some scales that imply antisocial behavior, anxiety, immaturity and low self-esteem show higher elevations than the normative sample (Lucio, 1998) which could suggest vulnerability, as some of them are characteristics found in adolescents with problems (Calvete & Estévez, 2009; Vinet et al., 2009) and in major mental health disorders (Benjet et al., 2009). Nevertheless, these adolescents tend to use diverse functional coping strategies, without an apparent predominance of any of them (Cassaretto, 2010; Frydenberg et al., 2008; Seiffge-Krenke, 2011). These include Problem Solving and Distraction; however, these results cannot be generalized because Distraction did not show a normal distribution, so it was necessary to transform its values.

On the other hand, correlational analyses show that all clinical scales that suggest emotional issues, as depression, psychasthenia, anger and anxiety are associated with involuntary disengagement-type, dysfunctional avoidance strategies such as Rumination, Physiological responses and Self-Harmful behavior (Connor-Smith & Flashbart, 2007; Contreras et al., 2009; Hambrick & McCord, 2010), which are frequently used by anxious, moody adolescents, some of them with depressive symptoms (Cassaretto, 2010). These coping strategies are also related to other traits like suspiciousness, susceptibility, as well as antisocial behavior and addiction potential, which is consistent with some findings from studies developed with adolescents from risk contexts (Costa et al., 2005; Davey et al., 2003; Salas-Wright et al., 2013). Likewise, these data point out that traits like immaturity, low impulse contention, depression, low self-esteem, anxiety and proneness to problematic alcohol and drugs use, seems to predict the lack of functional and productive strategies like problem solving (Cassaretto, 2010; Connor-Smith & Flashbart, 2007; Contreras et al., 2009). Similarly, these strategies were associated to antisocial behavior and alienation indices (Elgar et al., 2003; Salas-Wright et al., 2013), which in turn were related to alcohol/drug problem acknowledgement and proneness, although in less degree (Calvete & Estévez, 2009; Vinet et al., 2009). The presence of anger, anxiety symptoms and health concerns in adolescents contribute to physiological activation as reactions to stress, which are associated with other health problems (Connor-Smith & Compas, 2004; Lucio & Hernández, 2009).

Depressive traits and anxiety are not only related to Rumination, but are the strongest predictors, along with other characteristics such as low self-esteem (Seiffge-Krenke, 2000). Moreover, some psychopathic traits predict the use of involuntary disengagement strategies like Rumination. On the other hand, Schizophrenia and Psychastenia together predict Avoidance, which suggest that adolescents with schizoid traits, those with lack of interest in people, proneness to isolation, as well as peculiar and extravagant thinking, together with anxiety, perfectionism and guilt feelings, tend to avoid their problems or stressful situations (Carver & Connor-Smith, 2011; Connor-Smith & Flashbart, 2007). Anxiety and Alienation, which imply psychosocial maladjustment and more severe mood disorders (Lucio & Hernández, 2009; Palacios et al., 2010), are also predictors of Avoidance, with negative results for the adolescent emotional stability and vice-versa (Geisler et al., 2009).

Adolescents with tendency to worry, who are repressed and have low self-esteem, are unlikely to use Distraction as a stress management mechanism. On the contrary, less Health Concerns, more assertiveness and high self-esteem are characteristics contributing to the use of such strategy that could be functional when kids are not in direct control of the stress source (Frydenberg et al., 2008; Seiffge-Krenke, 2011). In turn, alienation and depressive symptoms as hopelessness and pessimism, health concerns, impulsivity and bizarre thinking could be the nucleus of Self-Harmful actions, seen as dysfunctional attempts to reduce strain, as indicated in other studies (Castro et al, 2014; Connor-Smith & Compas, 2004; Frydenberg et al., 2008). Nevertheless, Self-Harmful behavior can be considered a behavior susceptible to be predicted from avoidance coping (Castro et al., 2014), which seems to support the idea of interdependence of these two variables.

On the contrary, Problem Solving, Social support seeking and Distraction, considered as functional strategies

(Frydenberg et al., 2008; Seiffge-Krenke, 2011), show, to a greater o lesser extent, a negative association with traits that suggest psychopathology, which supports the idea of the primary control coping functionality (Connor-Smith & Compas, 2004). According to previous studies (Connor-Smith & Flashbart, 2007; Contreras et al., 2009), negative association of Low Self-Esteem and Low Aspirations with Problem solving, as well as of Immaturity and Alcohol/Drug Problem Proneness with Social support seeking suggest that youngsters with better self-esteem, are those who set positive goals for their future and are oriented toward the solution of their problems, are more mature, use functional strategies and have less probability of presenting alcohol and drug problems.

Finally, it should be noted that in this study just some basic personality dimensions predict the use of specific coping strategies. In short, personality traits like greater expressiveness and maturity, better self-esteem, less anxiety and depression, as well as less tendency to alcohol use, increases the probability that adolescents use adaptive coping strategies and oriented to problem solving in a similar way to the reported (Connor-Smith & Flashbart, 2007; Hambrick & McCord, 2010). On the contrary, depressive traits, tendency to somatization, anxiety, health concerns, repression, low self-esteem and introversion, some traits common to Neuroticism (Cassaretto, 2010; Connor-Smith & Compas, 2004) can be predictors of dysfunctional disengagement coping strategies, such as avoidance, rumination and physiological activation, the former related to problems like suicide (Lucio & Hernández, 2009). Unlike findings of other studies, impulsivity and alcoholism were not integrated into a model that explains dysfunctional behaviors such as Avoidance (Calvete & Estévez, 2009; Vinet et al., 2009), since its predictors were schizoid and anxiety traits. However, alcohol use was a predictor of Social support seeking, which makes sense if it is considered that alcohol related behavior seems to be "normalized" by negative peers, those whom adolescents turn to for social support in marginal and psychosocial risk contexts.

In short, multiple regression analyses by steps help to clarify the relationship personality-coping, by determining the predictive role of certain personality traits and their influence on coping strategies use (Carver & Connor-Smith, 2011; Connor-Smith & Flashbart, 2007). Nevertheless, the magnitude of the correlations, as well as the explained variance percentages, suggest that coping can be the result of other personal factors like adolescents' age, as it tends to differ in the early, middle or late adolescence (Seiffge-Krenke, 2011), or of other contextual variables not examined in this study (Davey et al., 2003; Frydenberg et al., 2008). Some socio-demographic factors such as parents' education and occupation, considered as markers of low socioeconomic level and economic marginalization (Costa et al., 2005; Davey et al., 2003) could be included as predictors in further research. Trajectory analyses would constitute a more robust statistical method that could be helpful in assessing the nature of the relationship personality-coping together with other variables. Also, limitations of this study indicate the need for caution with the interpretation and generalization of these results, as participants were selected from schools with marginalization markers. Nonetheless, this study provides data about the influence of some personality traits over functional or dysfunctional coping strategies, from which school and family intervention programs could be designed, contributing to modulate personality in adolescents and promoting coping skills that lessen adverse situations effects inherent to marginal settings.

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