

## RESEARCH ARTICLE

# Assessing Personality Disorders in Adolescence: A Validation Study of the IPOP-A

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**Abstract: Background:** The need to develop clinical and empirically-based tools for assessing personality development in adolescence led to the proposal of the IPOP-A (Ammaniti, Fontana, Kernberg, Clarkin, & Clarkin, 2011), a semi-structured interview for adolescents that aims to differentiate personality organization processes from characteristics that may reflect a personality disorder.

**Objective and Method:** This research aimed to evaluate the adaptation of the IPOP-A to the Portuguese population, attending to its diagnostic properties and its discriminant validity by comparing a clinical group with a nonclinical one. A total sample of 44 adolescents from 13 to 18 years old has taken part in this study, 22 of whom had a previous personality disorder diagnosis. The content of the interviews was transcribed and codified according to the coding manual.

**Results:** Acceptable internal consistency values across the dimensions of the IPOP-A are found and statistically significant differences are revealed between the clinical group and nonclinical group, with the clinical group revealing values that suggest higher impairment in the dimensions of the personality functioning in comparison with the nonclinical one.

**Conclusion:** Our study supports that the Portuguese version of the IPOP-A can be considered a valid instrument to identify adolescents with a personality disorder.

**Keywords:** Adolescence, assessment, IPOP-A, personality development, personality disorder, semi-structured interview.

## 1. INTRODUCTION

Personality disorder, which typically onsets in adolescence or adulthood, is included in Axis II of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-V*; American Psychiatric Association [APA], 2013) and is characterized by a pattern of inner experience and behavior that becomes stable, pervasive and inflexible over time, differing in a marked way from the expectations of the culture in which the individual takes part. This

pattern manifests itself through abnormal cognitive, affective, interpersonal, and impulse control functioning, causing distress and impairment in several aspects of life (APA, 2013); even in cases of remission, self-perception and social function may remain compromised (Gunderson *et al.*, 2011; Sharp & Wall, 2018). Since personality disorder etiology appears to be linked to temperamental and developmental experiences (Morey & Hopwood, 2013) and that the literature suggests that personality disorder can result in impairment both to adult's and youngsters' lives (P. Kernberg, Weiner, & Bardenstein, 2000), early diagnosis and intervention seem to have numerous benefits. Adolescence is usually pointed out as a central period

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for personality development (Ammaniti, Fontana, & Nicolais, 2015) due to flexibility in the personality traits (Chanen & McCutcheon, 2013), which might result in identity consolidation or in the development of psychopathological characteristics (Ramos, Canta, de Castro, & Leal, 2014; Sharp & Wall, 2018). Therefore, adolescence presents itself as a key developmental stage for intervention to take place regarding personality disorders.

Indeed, the DSM-V (APA, 2013) recognizes personality disorder diagnosis in adolescence as possible, and there is growing evidence supporting that possibility (Chanen & McCutcheon, 2008; Laurensen, Hutsebaut, Feenstra, Van Busschbach, & Luyten, 2013; Westen, Shedler, Durrett, Glass, & Martes, 2003)—especially in case of borderline personality disorder (Ammaniti *et al.*, 2015; Laurensen *et al.*, 2013; Paris, 2013; Ramos *et al.*, 2014; Sharp & Wall, 2018). However, clinicians seem reluctant to diagnose it (Chanen & McCutcheon, 2008; P. Kernberg *et al.*, 2000; Laurensen *et al.*, 2013; Paris, 2013). This might be due to fear of a stigmatizing diagnosis (De Fruyt & De Clercq, 2014; Laurensen *et al.*, 2013; Paris, 2008; Ramos *et al.*, 2014; Shiner & Allen, 2013) that also might be prejudicial for the adolescent's future (P. Kernberg *et al.*, 2000). However, when adequately explained, personality disorder diagnosis can be well accepted, whereas not making an accurate assessment may lead to inappropriate treatments or difficult access to more suitable ones (P. Kernberg *et al.*, 2000; Paris, 2008; Shiner & Allen, 2013). It might be the case that clinicians do not find support in insurance companies if a personality disorder diagnosis is made, since this diagnosis in minors might not be acknowledged as possible by third-party payers, making it ineligible for a managed care approach (P. Kernberg *et al.*, 2000). Consequently, another diagnosis might be made. In fact, clinically significant symptoms may only be assessed as part of an Axis I disorder (Laurensen *et al.*, 2013); yet, there is an underlying comorbidity risk between Axis I and II disorders in youth, with personality disorder producing a dramatic impact on the course and treatment of Axis I disorders (Cohen, Crawford, Johnson, & Kasen, 2005; Kasen *et al.*, 2007). For example, a worse response to psychopharmacologic treatments might occur when a personality disorder is not recognized, which might lead to a worse prognosis (P. Kernberg *et al.*, 2000). In addition, the assumption that psychopa-

thology in adolescence is fluid and will remit over time (Kasen *et al.*, 2007; Laurensen *et al.*, 2013; Paris, 2013), as well as a possible misconception between normative developmental characteristics and features of a personality disorder (Westen, *et al.*, 2003), may perpetuate controversy regarding the diagnosis. Given that one of the main tasks of adolescence is organizing personality traits in a coherent whole (Sharp & Wall, 2018), the idea of personality instability remains (Kasen *et al.*, 2007; P. Kernberg *et al.*, 2000).

Having these aspects in mind, the predominance of studies on personality disorders in adulthood is clear, leaving a gap in research related to adolescence, specifically concerning assessment instruments. The tendency is to adapt instruments from the adult population (Haslam, 2003; Heim & Westen, 2009; Livesley, 2007), which are structured on a categorical perspective (Haslam, 2003; Livesley, 2007) that considers mental disorders not only as qualitatively distinct from one another (APA, 2013), but also as medical conditions with delimited boundaries between normality and pathology (Huprich & Bornstein, 2007), which are assessed in a dichotomous way regarding presence-absence of specific criteria (Westen, Shedler, & Bradley, 2006). Examples include self-report instruments such as the Millon Adolescent Clinical Inventory (MACI; Millon & Davis, 1993) and the Adolescent Psychopathology Scale (APS; Reynolds, 1998). However, a dimensional perspective of personality seems to be of greater relevance in adolescence than a categorical one. A dimensional perspective assumes personality traits and psychopathology in a continuum, with personality disorder being a non-adaptive variation of personality traits that merge with each other and with normality (APA, 2013). Consequently, this allows for greater focus on developmental processes that precede psychopathological manifestations of personality (De Fruyt & De Clercq, 2014), and therefore might also be particularly useful to implement treatments promoting an adaptive development and to help preventing eventual forthcoming impairments of a personality disorder (Somma *et al.*, 2016). While a categorical perspective might be, for instance, criticized by excessive comorbid diagnosis, heterogeneity among people with a specific diagnosis or inadequate coverage of the diagnostic categories, a dimensional approach allows unique description of subject's whole set of personality traits (Widiger & Trull, 2007). For our

knowledge, there is a lack of instruments that help to provide a valid and reliable clinical assessment on personality disorders through a dimensional perspective, being an example of this the Personality Inventory for DSM-5 (PID-5; Krueger, Derringer, Markon, Watson, & Skodol, 2012), that have only been recently studied regarding clinical referred youth (De Caluwé, Verbeke, Van Aken, Van der Heijden, & De Clercq, 2018; Somma *et al.*, 2016). In this sense, the Interview of Personality Organization Processes in Adolescence (IPOP-A; Ammaniti, Fontana, Kernberg, Clarkin, & Clarkin, 2011) might also present itself as a relevant instrument for an integrated comprehension of personality organization specifically addressing personality assessment of adolescents.

The IPOP-A is a semi-structured clinical interview based on the psychoanalytic theory of Otto and Paulina Kernberg that intends to assess the personality organization processes and to differentiate those from personality disorder (Ammaniti *et al.*, 2012; O. Kernberg, 1995; P. Kernberg *et al.*, 2000). According to the authors, internalized object relations, *i.e.*, affective states towards interactions between oneself and another person, are integrated and organized following affective memories of experienced interactions with others (with affective states being dependent not only on early interactions with significant figures but also on affect predispositions). This internalized object relations will then influence how identity is formed: identity results of the process of integration of representations of the self and others, and these representations will be stable and realistic in case of a normal and consolidated identity while a pathological identity will be composed of unstable and unrealistic representations. This integrated view of the self and the others will reflect itself on features such as the ability to pursue commitments, evaluate others, maintain autonomy while emotionally investing in relationships with others, and in the internalization of a mature system of values. Additionally, a normal and consolidated identity will be associated with a higher diversity and complexity of effects with a predominance of positive affective states, compared to an identity with pathological features, specially associated with negative affective states and a poor ability to modulate effects (O. Kernberg & Caligor, 2005; P. Kernberg *et al.*, 2000). As such, the IPOP-A comprises three important dimensions: identity, object relations and effect regulation.

Regarding identity, it is important to highlight that healthy adolescents experience a transitory period of confusion and discrepancy between experiences and self-related perspectives (Ammaniti *et al.*, 2012; Erikson, 1956; O. Kernberg, 2006), which are nonetheless based on a complex and profound representation of themselves and significant others, with a progressive attempt to integrate the various characteristics of those representations (Ammaniti *et al.*, 2012; O. Kernberg, 2006; Nurmi, 2004; Sharp & Wall, 2018). Hence, it is imperative to differentiate normative identity crisis from identity pathology, which can manifest itself in several ways: a subjective sense of incoherence; difficulty in self-investment towards occupational roles and choices; and trouble distinguishing their own attributes, feelings, and desires from those of others, fearing the loss of personal identity with the end of a relationship (Wilkinson-Ryan & Westen, 2000).

The theory of object relations is stated as an integrative structure of personality since it focuses on the internalization of interpersonal relationships that contribute to a normal or pathological ego and superego functioning (O. Kernberg, 1995). Thus, concerning object relations, the second individuation process from caregivers and the investment in peer and romantic relationships must be considered regarding the quality of interpersonal functioning during adolescence (Ammaniti *et al.*, 2012; Ammaniti *et al.*, 2015).

Finally, affect regulation, based on interactions between temperament, interpersonal relationships and life experiences (Ammaniti *et al.*, 2012; Ammaniti *et al.*, 2015), reflect how youth internally experience their lives and how they relate to their interpersonal experience with significant others, being an important feature in personality assessment during adolescence (Weinberg & Klonsky, 2009). It is expected that healthy adolescents, especially in late adolescence, will be able to experience a wide variety of effects, as well as to modulate and share affective experiences (Ammaniti *et al.*, 2012; Ammaniti *et al.*, 2015).

The assessment of personality development during adolescence is a particularly complex challenge, making the existence of reliable and valid clinical tools that might access personality organization processes particularly relevant. Therefore, the purpose of this research is to analyze the adap-

tation of the IPOP-A (Ammaniti *et al.*, 2011) to the Portuguese adolescent population, by establishing validity criteria and analyzing whether it allows differentiation between youth with a personality disorder and a normative personality.

## 2. METHOD

### 2.1. Participants

The present study has a convenience sample of 44 adolescents of both sexes between 13 and 18 years old. Twenty-two of those adolescents belong to a clinical group previously diagnosed with personality disorder by child and adolescent psychiatrists using DSM-IV (APA, 1994) criteria and in psychiatric and/or psychological treatment in the hospital's child and adolescent mental health clinic where the recruitment had taken place. The remaining participants belonged to a nonclinical group, composed of adolescents in no psychiatric and/or psychological treatment and identified as

potential participants for the study by family members reached through a snowball method. Mean age was 15 ( $SD = 1.61$ ) for the clinical group and 16 ( $SD = 1.71$ ) for the nonclinical group.

The clinical group reported more stressful life events, with parents' divorce or separation being the most frequently mentioned, followed by their own or a relative's illness and difficulties in the family relationships. In the nonclinical group, the most often stated stressful life event was the illness of a relative, followed by parents' divorce or separation, difficulties in family dynamics and one's own illness. Table 1 summarizes the characteristics of the sample. Exclusion criteria were the presence of moderate or severe mental deficiency, psychosis, severe behavioral changes associated with an antisocial functioning, substance abuse as the first diagnosis, acute decompensation and neuropsychiatric symptoms with physical cause.

**Table 1. Characterization of adolescent participants (N = 44) in relation to sociodemographic variables.**

Sociodemographic Variables	Participants			
	Clinical		Nonclinical	
	<i>n</i>	%	<i>n</i>	%
<b>Sex</b>				
Female	15	68.20	12	54.50
Male	7	31.80	10	45.50
<b>Age</b>				
13-15	12	54.50	15	68.20
16-18	10	45.50	7	31.80
<b>Level of Education</b>				
5th-9th Grade	14	63.60	15	68.20
10th-12th Grade	6	27.30	7	31.80
Technical Course	2	9.10	-	-
<b>Family Type</b>				
Nuclear	8	36.40	13	59.10
Single-parent	8	36.40	4	18.10
Stepfamily	3	13.60	1	4.50
Other Relatives	1	4.50	2	9.10
Adoption	1	4.50	-	-

(Table 1) Contd...

Sociodemographic Variables	Participants			
	Clinical		Nonclinical	
	<i>n</i>	%	<i>n</i>	%
Institution	1	4.50	-	-
Emancipation	-	-	2	9.10
<b>Romantic Relationship</b>				
Yes	2	9.10	6	27.30
No	20	90.90	16	72.70
<b>Stressful Life Events</b>				
Own Illness	6	27.30	3	13.60
Illness of a Relative	5	22.70	7	31.80
Parent's Divorce/ Separation	11	50.00	6	27.30
Difficulties in Family Dynamics	5	22.70	3	13.60
Institutionalization	3	13.60	1	4.50
Death of Parent/ Caregiver	2	9.10	-	-
Adoption	1	4.50	-	-
Maltreatment	4	18.20	-	-
Abandonment by One/ Both Parent(s)	2	9.10	-	-
Sexual Abuse	1	4.50	-	-
<b>Motive for Seeking Treatment</b>				
Depressive Complains	12	54.50	-	-
Behavioral Changes	9	40.90	-	-
Suicide Ideation/ Attempt	6	27.30	-	-
Socialization Difficulties	10	45.50	-	-
Obsessive Rituals	4	18.20	-	-
Physical Complains	3	13.60	-	-
Changes in Eating Behavior	1	4.50	-	-
<b>Clinical Referral</b>				
Own Initiative	4	18.20	-	-
Family/ Friend Advice	8	36.40	-	-
Medical Referral	10	45.50	-	-
<b>Type of Treatment</b>				
Psychology	5	22.70	-	-
Psychiatry	8	36.40	-	-
Both	9	40.90	-	-

*Note.* The dash indicates the absence of participants in relation to the respective sociodemographic characteristic.

## 2.2. Procedure

After the IPOP-A authors' approval to use the instrument and the respective coding manual, the

IPOP-A was first translated to Portuguese and then back-translated to English by different clinical psychologists and psychology researchers in an independent way to verify intersubjective agree-

ment on the meaning equivalence of the translated items regarding its original English version. This agreement was achieved by consensus through a discussion group between translators. Then, it was performed a cognitive debriefing with the target population to determine the comprehension level of the instrument's questions.

After ethical approval and informed consent were obtained, the participants filled in the sociodemographic questionnaire prepared by the authors for this study. Items included sex, age, level of education, family type (assessed by asking with whom they lived), current romantic relationship status, stressful life events experienced, type of treatment taken, motive for seeking treatment and who did the clinical referral. Secondly, the IPOP-A was administered by a psychologist previously trained on the IPOP-A protocol, with this assessment lasting approximately 50 to 90 minutes. Data collection was performed in a quiet and private environment, adjusted whenever possible to the physical and time availability of the participants. Each protocol was assigned with a numerical code and the audiotaped interviews were fully transcribed by three evaluators. The evaluation of the participants' answers was performed independently with the level of intersubjective agreement achieved by consensus after discussion among the three evaluators.

### 2.3. Ethical Approval and Informed Consent

Written approval by the Ethics Committee of the hospital and by the adolescents' caregivers was secured before data collection, and an informed consent, both in an oral and in a written form, was presented to the participants clarifying the research' collaboration format and reinforcing its confidentiality, anonymity and voluntary nature along with the possibility for withdrawal at any moment without prejudice.

### 2.4. Materials

The IPOP-A (Ammaniti *et al.*, 2011) is a semi-structured interview for adolescents between 13 and 21 years old with 42 questions distributed along three dimensions: identity, object relations, and affect regulation. The identity dimension differentiates normal identity crisis from identity diffusion, assessing aspects such as representations of the self and significant others, self-esteem, integration of corporal and sexual changes, investment in

school and leisure activities, goals and ambitions. The object relations dimension evaluates the quality of interpersonal functioning with peers, caregivers, and romantic partners. Finally, the affect regulation dimension appraises the ability to identify experience and modulate affective experiences, with the participants being questioned about how they would feel and react to quotidian events (Ammaniti *et al.*, 2012, Ammaniti *et al.*, 2015).

The IPOP-A (Ammaniti *et al.*, 2011) is a modified version of the Structured Interview of Personality Organization-Adolescent Version (STIPO-A; Fontana & Ammaniti, 2010), which derives from the Structured Interview of Personality Organization (STIPO; Clarkin, Caligor, Stern, & Kernberg, 2003) for adults. This modification reduced the duration of the interview administration so that adolescents would not get bored. Despite the STIPO-A having shown good results, namely in internal consistency values with Cronbach's alphas ranging between .96 and .81, Ammaniti *et al.* (2011) reduced the number of items and added an affect regulation dimension, which was not originally a part of the STIPO-A. Additionally, unlike the STIPO, the IPOP-A (Ammaniti *et al.*, 2011) allows a focus on personality development processes.

### 2.5. Data Analysis

Data analysis was performed through a content analysis according to the IPOP-A coding manual (Ammaniti *et al.*, 2011). This manual considers the participant's gender and divides adolescence into three groups: early adolescence (12-15 years old), middle adolescence (16-18 years old) and late adolescence (19-21 years old). The coding system varies between the values 0 and 2, where "0" corresponds to healthy aspects, "1" means moderate difficulties and "2" indicates high risk difficulties.

It was not possible to perform an exploratory factor analysis to evaluate the validity of the construct given the reduced number of subjects (Tabachnick & Fidell, 2007). As such, the IPOP-A dimensions were considered according to the distribution of items suggested by Ammaniti *et al.* (2011). Internal consistency was evaluated by the Cronbach's alpha coefficient and normality by the Kolmogorov-Smirnov (K-S) test along with skewness (*Sk*) and kurtosis (*Ku*) values.

The homogeneity of variance assumption was verified through the Levene test. Then, *t*-tests for independent samples were performed to analyze variance in the IPOP-A dimensions between clinical and nonclinical groups. More *t*-tests for independent samples were applied to assess variance in these same dimensions according to sex, age, and level of education of each group. To analyze this variance according to the family type, one-way analysis of variance (ANOVA) was used.

It should be noted that, in order to perform these analyses, some of the categories regarding the level of education—10<sup>th</sup> to 12<sup>th</sup> grade and technical course—and some others regarding the family type—stepfamily, other relatives, adoption, institution and emancipation—were grouped to achieve a more balanced distribution of the sample. However, unequal sampling distribution regarding the categories of romantic relationships and the stressful life events did not allow these to take part in the analysis. All data were analyzed with the program IBM SPSS Statistics, version 18.

### 3. RESULTS

#### 3.1. Psychometric Analysis

The three dimensions of the IPOP-A showed satisfactory internal consistency levels after removing item 10 “Do you like doing risky things or challenging rules?” originally integrated into the Identity dimension, and item 21, “How does he/she put together these different aspects of himself/herself?” of the object relation dimension. These items were removed, since alpha if item deleted index suggested an improvement in Cronbach’s alpha levels if these individual items were deleted, and since these removals still allowed us to preserve the theoretical meaning of these dimensions. Consequently, we obtained Cronbach’s

alphas of .69 for the identity dimension, .79 for the object relations dimension, and .61 for the affect regulation dimension, with the identity and affect regulation reliability levels indicating moderate reliability since the values obtained are between .50 and .70 (Hinton, Brownlow, McMurray, & Cozens, 2004).

Through the Kolmogorov-Smirnov test, we also found that the identity dimension,  $D(44) = 0.19$ ,  $p < .001$ , and the object relations dimension,  $D(44) = 0.17$ ,  $p = .002$ , unlike the affect regulation dimension,  $D(44) = 0.13$ ,  $p = .052$ , did not display a normal distribution. However, since the sample exceeds 30 subjects, it is possible to evoke the central limit theorem and assume an approximately normal distribution (Marôco, 2014). Additionally, the skewness and kurtosis values did not compromise this distribution since skewness values were below 3 and kurtosis values were below 8, which allows the preservation of robustness of the parametric tests (Kline, 2011).

#### 3.2. Descriptive and Differential Analysis

The Levene test revealed homogeneity of variance assumption for the dimensions Identity,  $F(1, 42) = 1.61$ ,  $p = .212$ , object relations,  $F(1, 42) = 11.46$ ,  $p = .062$ , and affect regulation,  $F(1, 42) = 0.03$ ,  $p = .868$ ; therefore, comparisons between means were performed. Considering the total sample, analysis of mean values revealed the Identity dimension ( $M = 0.49$ ,  $SD = 0.06$ ) to be the most compromised dimension, since it presents values higher than both Object Relations dimension ( $M = 0.39$ ,  $SD = 0.04$ ) and the affect regulation dimension ( $M = 0.37$ ,  $SD = 0.04$ ). The *t*-tests for independent samples revealed statistically significant differences for all dimensions of the IPOP-A in both groups, with the clinical group showing higher mean values than the nonclinical group (Table 2).

**Table 2.** Discriminant validity of the IPOP-A.

	Clinical Group	Nonclinical Group		
Domain	<i>M (SD)</i>	<i>M (SD)</i>	<i>t</i>	<i>p</i>
Identity	0.70 (0.42)	0.28 (0.18)	4.32	.000***
Object Relations	0.50 (0.29)	0.27 (0.22)	2.94	.005*
Affect Regulation	0.45 (0.23)	0.29 (0.21)	2.29	.027*

\* $p < .05$ . \*\*\* $p < .001$ .

**Table 3.** Comparison of the IPOP-A domains in relation to sociodemographic variables across groups.

D	Sex				Age				Level of Education (Grade)				Family Type				
	Female <i>M (SD)</i>	Male <i>M (SD)</i>	<i>t</i>	<i>p</i>	13-15 <i>M (SD)</i>	16-18 <i>M (SD)</i>	<i>t</i>	<i>p</i>	5th-9th <i>M (SD)</i>	10th-12th <i>M (SD)</i>	<i>t</i>	<i>p</i>	Nuclear <i>M (SD)</i>	Single Parent <i>M (SD)</i>	Other <i>M (SD)</i>	<i>F</i>	<i>p</i>
<b>Clinical Group</b>																	
I	0.73 (0.47)	0.65 (0.32)	0.42	.681	0.80 (0.39)	0.60 (0.46)	1.09	.290	0.79 (0.37)	0.57 (0.51)	1.16	.259	0.60 (0.41)	0.71 (0.40)	0.85 (0.50)	0.60	.561
O	0.58 (0.32)	0.35 (0.16)	1.79	.089	0.51 (0.31)	0.49 (0.30)	0.14	.890	0.54 (0.30)	0.45 (0.30)	0.68	.506	0.36 (0.30)	0.52 (0.31)	0.67 (0.21)	2.17	.142
A	0.48 (0.22)	0.40 (0.28)	0.77	.450	0.48 (0.27)	0.42 (0.20)	0.56	.585	0.47 (0.26)	0.42 (0.21)	0.53	.600	0.39 (0.17)	0.40 (0.20)	0.60 (0.33)	1.81	.191
<b>Nonclinical Group</b>																	
I	0.29 (0.17)	0.28 (0.20)	0.12	.908	0.25 (0.18)	0.32 (0.18)	-0.93	.363	0.28 (0.19)	0.29 (0.18)	-0.05	.961	0.31 (0.18)	0.28 (0.26)	0.22 (0.11)	0.38	.687
O	0.29 (0.26)	0.25 (0.18)	0.45	.660	0.21 (0.14)	0.35 (0.28)	-1.49	.152	0.23 (0.15)	0.35 (0.33)	-1.18	.253	0.22 (0.13)	0.55 (0.36)	0.18 (0.15)	5.42	.014*
A	0.27 (0.19)	0.32 (0.25)	-0.52	.604	0.31 (0.26)	0.28 (0.16)	0.30	.765	0.31 (0.25)	0.26 (0.14)	0.51	.619	0.30 (0.25)	0.36 (0.14)	0.24 (0.16)	0.35	.713

Note. D = Domain; I = Identity; O = Object Relations; A = Affect Regulation.

\* $p < .05$ .

As shown in Table 3, no significant differences were found between dimensions of the IPOP-A according to sex, age and level of education in either group. Regarding the clinical group, there were also no significant differences according to the type of family; however, there were significant differences in the object relations dimension according to the type of family in the nonclinical group. A post-hoc analysis revealed significant differences between nuclear and single-parent families ( $p = .023$ ) and between single-parent and other types of families that were neither nuclear nor single-parent ( $p = .028$ ), with single-parent families revealing higher mean values ( $M_{\text{nuclear}} = 0.22$ ,  $SD_{\text{nuclear}} = 0.13$ ;  $M_{\text{single-parent}} = 0.55$ ,  $SD_{\text{single-parent}} = 0.36$ ;  $M_{\text{other}} = 0.18$ ,  $SD_{\text{other}} = 0.15$ ).

#### 4. DISCUSSION

The results show that the Portuguese version of the IPOP-A presents satisfactory internal consistency values throughout its dimensions. These dimensions also follow an approximately normal distribution, which altogether supports the IPOP-A as a valid instrument to collect information on the personality organization processes of adolescents and to identify adolescents with a personality dis-

order. Of further note, the three dimensions of the IPOP-A—identity, object relations and affect regulation—are aligned with the *DSM-V* alternative model criteria for personality disorder diagnosis (APA, 2013). This model is based on a dimensional perspective regarding personality (Ammaniti *et al.*, 2012; Ammaniti *et al.*, 2015), which is relevant due to the importance of this perspective when evaluating youth.

The higher mean values of our total sample on the identity dimension of the IPOP-A suggest that this is the most impaired feature of adolescent's psychological functioning in comparison to the other analyzed dimensions. This is consistent with the developmental process of personality being particularly central during adolescence, when flexibility in traits is a reality (Chanen & McCutcheon, 2013) and there is a progressive attempt to organize various perspectives of the self and significant others into a coherent whole (Ammaniti *et al.*, 2012; O. Kernberg, 2006; Nurmi, 2004; Sharp & Wall, 2018). This in turn may result either in personality consolidation or development of psychopathological characteristics (Ramos *et al.*, 2014; Sharp & Wall, 2018). Indeed, by assessing the discriminant validity of the IPOP-



A, there were statistically significant differences in all dimensions of the instrument, with mean values for the adolescents in the clinical group being higher than those of the nonclinical group. This might reflect greater functionality impairment in adolescents whose characteristics are associated with personality disturbance, not only at an identity consolidation level but also regarding the quality of the interpersonal relationships established and the subjects' affect regulation ability.

The present study also showed no significant difference between the IPOP-A dimensions in any of the sample groups when considering sex, age or level of education. However, it might indicate a tendency to higher impairment among girls in the generality of dimensions regarding our results, which seem to show slightly higher mean levels for girls. This may be explained by an increased risk in women to experience greater distress towards negative life events (Hilt & Nolen-Hoeksema, 2009; Rose & Rudolph, 2006). Since personality pathology can emerge from an adaptation attempt towards stressful experiences (Shiner & Allen, 2013), these experiences should then be considered when assessing adolescent's identity consolidation, interpersonal functioning, and affect regulation ability.

Given the prominence of social, academic and occupational contextual factors in adolescence, it is possible that these factors impact personality functioning and, as such, contribute to the emergence and maintenance of problematic patterns related to personality pathology. This is especially likely with regard to family stress, which strongly relates to the emergence of personality disorder symptoms (Shiner & Allen, 2013). Thus, although in our study no significant differences were found in any of the IPOP-A dimensions by family type in the clinical group, the higher mean values of subjects whose families are neither nuclear nor single-parent suggests a tendency for these family types to be associated with higher impairment in IPOP-A dimensions, which is in line with the finding by Lahti *et al.* (2012) that separation from caregivers increases the risk for development of personality disorders. Other risk factors identified by Cohen *et al.* (2005) include the presence of only one parent, parental conflict, and parental illness or death. This accords with our finding that adolescents in the nonclinical group of single-parent families showed more impairment in the object relations

dimension compared to subjects of nuclear or other types of families. In fact, by analyzing absolute frequencies of stressful life events experienced in our overall sample, we verified that parents' divorce or separation was the most commonly reported stressful life event among the adolescents of both groups. These events ranked second in the nonclinical group, being only preceded by the illness of a relative. Therefore, one might hypothesize that despite the presence of personality disorder indicators or a normative personality functioning, these events can have some impact on the youth's psychological adjustment.

While variations occur in normal adolescence regarding affect, self-control, relationships quality and perspectives of the self, others and life experiences, personality disorder is characterized by an unusual pattern in cognitive, affective, and interpersonal functioning as well as impulse control (APA, 2013), making it essential to comprehensively assess youth's personality (Shiner & Allen, 2013). There are few instruments adapted for adolescents to evaluate personality disorder, and only a small number of instruments available to assess personality based on a dimensional perspective. The satisfactory psychometric characteristics of the IPOP-A support the validity of the instrument in differentiating adolescents with personality disorder from those with a healthy personality functioning, and the descriptive characteristics and variations found in the clinical and nonclinical groups may provide clues for possible future studies that account for both populations. Hence, this study is an important contributor to better understand the psychopathological manifestations of personality compared with developmental manifestations of it, although the need prevails for deeper understanding concerning this issue.

Some limitations must be considered regarding this research. Despite Ammaniti and colleagues' (2011) intention to decrease the IPOP-A's administration time compared to the STIPO-A, participants in our study sometimes complained about its length. Thus, intrapersonal variables, such as fatigue, might have compromised generalization of the results. Future research should take this into account and consider the need for an even shorter interview. The generalization of results may also be limited given the inequalities in the original samples with respect to the level of education and family type, which forced us to regroup the par-

ticipants to equally distribute those categories in order for the analysis to be performed. It was also not possible to compare groups through differential analysis regarding the categories of romantic relationships and stressful life events due to unequal sampling distribution along those, which might be pertinent to assess in future studies. In fact, one may presume that the absence of significant differences among the IPOP-A dimensions according to the analyzed sociodemographic variables will possibly not be verified in other studies with higher sampling sizes in both clinical and nonclinical groups. Future research should include larger samples to clarify these results. Nevertheless, it is noteworthy that this research allowed gathering data from a clinical group of adolescents with a previous personality disorder diagnosis, which is rarely achieved in scientific studies.

Despite these limitations, the IPOP-A validation in the Portuguese population seems to amplify the possibility of collecting useful clinical information on personality disorders and personality organization processes. We suggest that its use along with other assessment instruments and techniques may promote not only a more comprehensive and adequate diagnosis but also more effective clinical interventions regarding the needs and the mental health condition of adolescents.

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## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Not applicable.

## HUMAN AND ANIMAL RIGHTS

This study involved human participants. Procedures regarding ethical approval and human subjects protections are detailed in the manuscript.

## CONSENT FOR PUBLICATION

Not applicable.

## CONFLICT OF INTEREST

The author declares no conflict of interest, financial or otherwise.

## ACKNOWLEDGEMENTS

William James Center for Research is funded by the Fundação para a Ciência e Tecnologia – FCT (grant UID/PSI/04810/2013).

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