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# Dimensional analysis of personality in adolescents with suicidal behavior

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**Objectives.** This study is aimed at validating the dimensional internalizing and externalizing approach to personality in a sample of adolescents with suicidal behavior and analyzing the psychopathological and syndromic differences between adolescents from each dimension.

**Method.** It is a descriptive and cross-sectional study of 75 adolescents (75% women) who attended the emergency service of a pediatric hospital due to suicidal behavior. Sociodemographic, clinical and psychopathological data and personality profiles (MACI) were gathered.

**Results.** The factorial analysis found two factors (total variance of 77.65%): an internalizing (28% of the cases) and an externalizing profile (72% of the cases). Statistically significant differences were obtained between the two profiles in the expressed concerns and the clinical syndromes of the MACI.

**Conclusions.** Two differentiated personality profiles were found in our sample of adolescents with suicidal behavior. The externalizing profile was more prevalent. These profiles should guide clinical decisions and help plan therapeutic interventions to reduce the risk of suicidal behavior relapse.

**Key words:** Adolescents, Suicide, Suicidal behavior, Dimensional personality, Exploratory analysis

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## Análisis dimensional de la personalidad del adolescente con conducta suicida

**Objetivos.** El presente trabajo tiene por objetivo validar el enfoque bidimensional de personalidad internalizante y externalizante en una muestra de adolescentes con conducta suicida y analizar las diferencias psicopatológicas y sindrómicas entre los adolescentes que tienden a una u otra dimensión.

**Método.** Estudio descriptivo transversal con una muestra de 75 adolescentes (79% chicas) que acudieron a urgencias de un hospital pediátrico por conducta suicida. Se recogieron datos sociodemográficos, clínicos, psicopatológicos y de perfiles de personalidad (MACI).

**Resultados.** El análisis factorial extrajo dos factores (total varianza 77.56%): un perfil internalizante (28% de casos) y otro externalizante (72% de los casos). Se observaron diferencias estadísticamente significativas entre perfiles en preocupaciones expresadas y síndromes clínicos del MACI.

**Conclusiones.** Se obtienen dos perfiles diferenciados de personalidad en la muestra de adolescentes con conducta suicida, siendo el perfil externalizante el más prevalente. Estos perfiles deberían ayudar a tomar decisiones clínicas y planificar intervenciones para reducir el riesgo de repetición de la conducta suicida.

**Palabras clave:** Adolescentes, Suicidio, Tentativa, Personalidad dimensional, Estudio exploratorio

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## INTRODUCTION

Suicide is a global health problem with an incidence of more than 800,000 deaths per year<sup>1</sup>. In Spain, suicide is the first cause of death due to non-natural causes, thus becoming a priority for the public health system<sup>2</sup>. The suicide phenomenon entails a very high physical and psychological suffering, both for the person exhibiting such behavior, and for those close to him/her and the professionals who must address the situation<sup>3,4</sup>. This results in the loss of many potential years of life and entails significant emotional and economic costs for society<sup>5</sup>.

Suicide attempts are much more frequent than consummate suicides. The World Health Organization estimates that 20 attempts are made for each consummate suicide<sup>1</sup>, with suicide attempt being one of the main predictors of consummate suicide<sup>1,3,6,7</sup>.

The adolescent population is considered to be at greater risk as up to 8% of young people have attempted suicide throughout their life<sup>8</sup>, compared to 0.5% per year in the case of adults<sup>9</sup>. In addition, it has been reported that between 20% and 47% of the adolescent psychiatric population will incur in a suicide attempt before the age of 18 years<sup>10</sup>.

There is a set of factors associated to suicidal behavior that may be related to external or environmental causes (such as social position, economic factors, social isolation, immigration, or other cultural factors), or with internal or individual causes, such as mental illness, psychobiological factors or personality<sup>11,12</sup>.

Most studies<sup>13-15</sup> has focused exclusively on the use of psychodiagnostic classification methods to study the relationship between suicidal behavior and psychopathological personality. However, these diagnostic indicators present very low specificity and do not add much clarity to its etiology<sup>16,17</sup>. Thus, in relation to personality, a trait-based approach can favor the detection of the type of dysfunction at a psychopathological level and its severity, aiding decision-making among professionals<sup>18</sup>. From this dimensional approach, it has been reported that hostility, aggressiveness, impulsivity and introversion increase the vulnerability of people regarding suicidal ideation<sup>19</sup>. This is evidenced by Simón and Sanchis<sup>20</sup>, whose study entailed a dimensional approximation to personality, using *Millon's Adolescent Clinical Inventory* (MACI) on a sample of 1,194 adolescents. Out of the entire sample, only 65 participants showed significant results of suicidal ideation, with a high correlation between clinical levels of suicidal ideation and the following traits: *Introversive, Doleful, Inhibited, Unruly, Forceful, Oppositional, Self-Demeaning, and Borderline Tendency*<sup>20</sup>. Nevertheless, this work did not cover all dimensions and as-

pects of suicidal behavior, such as attempt, preparatory acts toward imminent suicidal attempt, threat, or suicidal ideation, thus warranting the need for more studies that, despite the lack of consensus on the applicability of the personality construct at early ages<sup>21</sup>, could provide further knowledge about the relationship between personality and suicidal behavior in order to guarantee the validity of the diagnoses, to specify the severity of the patients' symptomatology and aid the decision-making process<sup>18</sup>.

In this line, Achenbach and Edelbrock<sup>22</sup> suggested categorizing personality traits into two dimensions, internalizing and externalizing, which facilitates their empirical study among adolescents. Several studies have shown that these dimensions explain most associations between personality patterns, psychopathology indicators and clinical dysfunction<sup>23-25</sup>. Currently, this bi-factorial personality model is rising due to its theoretical value and clinical usefulness<sup>25</sup>.

According to these considerations, the present study aims to validate the dimensional approach to personality - internalizing and externalizing profiles - and to analyze the possible differences between adolescents with suicidal behavior tending towards one or the other dimension, in order to facilitate their psychopathological assessment and, in turn, to be able to propose therapeutic interventions more adapted to the characteristics and idiosyncrasy of each patient.

## METHODOLOGY

The design of the present study is cross-sectional, descriptive and correlational.

### Participants

Adolescents requiring hospital admission after visiting the Hospital Sant Joan de Déu (Barcelona) Emergency Services due to some type of suicidal behavior were recruited. This hospital has an area of influence of 1,300,000 inhabitants and receives 100,000 annual visits to the Emergency Service.

The inclusion criteria were: 1) to be aged between 13 and 17 years (both inclusive) and 2) to present some type of suicidal behavior (including suicide attempt, preparatory acts toward imminent suicidal attempt, threat and suicide ideation). The following exclusion criteria were considered: 1) presence of cognitive deficits or other neuropsychological deficits that could hamper clinical assessment and/or comprehension of the concept of death as well as understanding the administered questionnaires, or 2) presence of self-injuries or parasuicidal behaviors, self-inflicted harm, intoxica-

tions or other similar behaviors with anxiolytic, playful or other non-suicidal intentions.

The final sample was composed of 75 adolescents, of whom 78.7% were women ( $n=59$ ) and 21.3% ( $n=16$ ) were men, with a mean age of 14.84 years ( $SD=1.39$ , range=12–17). Of these, 13.3% ( $n=10$ ) were adolescents who attended emergency services due to suicide ideation, 2.7% ( $n=2$ ) for presenting a suicide threat, 5.3% ( $n=4$ ), for presenting preparatory acts towards an imminent suicidal attempt and 78.7% ( $n=59$ ) for a suicide attempt.

## Assessment instruments

The data on gender and age as well as clinical variables related to suicidal behavior were recorded from an *ad hoc* protocol.

The Spanish version<sup>26</sup> of the *Millon Adolescent Clinical Inventory* (MACI)<sup>27</sup> was used to evaluate the personality traits as well as the expressed concerns (and their severity) and the clinical profile. The MACI is a self-report inventory specifically designed to assess personality characteristics and clinical syndromes among adolescent clinical population (aged between 13 and 19 years). It consists of 160 items with a dichotomous response (T/F), distributed across 31 scales. These scales are grouped as follows: a protocol validity scale (*Reliability*) and three modifying indices that allow to measure certain patient response trends (*Disclosure*, *Desirability*, *Debasement*), twelve personality pattern scales that reflect the way in which the traits and personality characteristics of the adolescent combine to form patterns (*Inhibited*, *Doleful*, *Submissive*, *Dramatizing*, *Introversive*, *Egotistic*, *Unruly*, *Forceful*, *Conforming*, *Oppositional*, *Self-Demeaning*, and *Borderline Tendency*). There are eight scales for expressed concern that focus on feelings and attitudes of the adolescent that can be a source of conflict or concern (*Identity Diffusion*, *Self-Devaluation*, *Body Disapproval*, *Sexual Discomfort*, *Peer Insecurity*, *Social Insensitivity*, *Family Discord*, and *Childhood Abuse*) and seven clinical syndromes scales, which include high prevalence disorders that manifest relatively specifically among adolescents (*Eating Dysfunctions*, *Substance Abuse Proneness*, *Delinquent Predisposition*, *Impulsive Propensity*, *Anxious Feelings*, *Depressive Affect*, and *Suicidal Tendency*). This instrument was validated on a Spanish population and the reliability coefficients of the scales were between 0.65 (*Sexual Discomfort*) and 0.91 (*Self-Devaluation*). Among the personality pattern scales, the coefficients ranged between 0.69 (*Submissive*) to 0.90 (*Self-Demeaning*)<sup>26</sup>.

## Procedure

The data for the present study were collected between December 2015 and November 2016. All data regarding de-

mographic (*gender and age*) and clinical variables (*personal history of self-harm, personality disorders or maladaptive traits, bullying, childhood abuse, previous suicide behavior and number of visits to the emergency services due to suicidal behaviours*) in relation to the characterization of the suicidal behavior were collected by a clinical professional (psychologist or psychiatrist) belonging to the Psychiatry Service of the Hospital Sant Joan de Déu during the patient's admission.

The data related to the personality traits and those related to clinical severity (expressed concerns and concomitant clinical syndromes) were obtained through the administration of the MACI Inventory. To do so, the clinical professional, during patient admission, briefly explained the instructions of the inventory to ensure the patient's understanding. Once the test was completed, a computerized correction of the test was performed.

## Ethical aspects

This study was carried out entirely in the Hospital Sant Joan de Déu Suicide Unit. Prior to this, approval was obtained from the Hospital's Ethics Committee –considering internal ethical standards, as well as that of the World Medical Association and the Helsinki Declaration of 1975 with its successive amendments–. All participants gave their written consent after receiving the information regarding the study, its objectives, and the agreement of confidentiality and protection of personal data. Participation in this study was not remunerated.

## Statistical analyses

The Statistical Package for the Social Sciences (SPSS) version 18 was used for the statistical treatment of the data. To obtain descriptive and prevalence data of the different sociodemographic characteristics and the variables associated with suicidal behavior, descriptive statistics and frequency distribution analyzes were performed. Subsequently, a categorization of the MACI personality pattern scales into profiles was performed using a factorial analysis by the main components extraction method and VARIMAX rotation in which the internalizing/externalizing profiles were obtained. Once obtained, the sample was distributed into both profiles by a K-means clustering analysis and the differences between them were analyzed through a Student's t-test and one-way variance analyses (ANOVA) for independent samples (for quantitative variables) or a Chi square test (or the Fisher's exact test, when no application criteria were met for the Chi squared), calculated from 2X2 contingency tables (for categorical variables). The normality of the MACI scores was verified through the Kolmogorov-Smirnov test. The sig-

nificance of all the tests was considered with a probability level of 5% or less, always indicating the exact significance offered by the SPSS.

## RESULTS

### Exploratory factor analysis of MACI

In order to determine whether the MACI personality pattern scales could be represented by a two-profile structure, internalizing and externalizing, an exploratory factor analysis (EFA) was performed. The Kaiser-Meyer-Olkin sampling adequacy measure indicated that the relationship between the MACI personality pattern scales was remarkable ( $KMO=0.847$ ), and Bartlett's sphericity test indicated that the factorial analysis could be performed ( $X^2=895,120$ ,  $p<0.001$ ).

The Principal Component Analysis (PCA) indicated 2 factors with an eigenvalue greater than 1 (5.283, 4.023). A 2-factor model was extracted that explained a total cumulative variance of 77.56%. Specifically, the first component accounts for 44.03% and the second component accounts for 33.53%.

The matrix of rotated components (VARIMAX) suggested the following grouping: the internalizing profile was composed by the *Egotistic* (negative sign), *Dramatizing* (negative sign), *Introversive*, *Inhibited*, *Self-Demeaning*, and *Doleful* scales. The externalizing profile consisted of the *Unruly*, *Forceful*, *Submissive* (negative sign), *Conforming* (negative sign), *Oppositional* and *Borderline Tendency* scales. The negative loadings of the *Egotistic* and *Dramatizing* scales suggest that low scores in these scales determine membership to the internalizing profile. Likewise, the negative loadings in the *Submissive* and *Conforming* scales indicate that low scores determine membership to the externalizing profile (see Table 1).

### K-means Cluster Analyses

The sample was classified by means of a K-means cluster analysis into the two profiles obtained in the factorial analysis (internalizing and externalizing). In the Cluster 1, the internalizing profile, 28% of the participants were grouped ( $n=21$ ). The Cluster 2, the externalizing profile, was composed of 72% of the participants ( $n=54$ ). The One-way variance analysis (ANOVA) indicates that all scales were significantly different between clusters, with the exception of the *Unruly* scale ( $p=0.086$ ).

There were no statistically significant differences for the profiles in relation to sex ( $p>0.05$ ), or in relation to age ( $p>0.05$ ). In the internalizing group, 90.5% were found to be

Scales	Exploratory Factor Analysis of the MACI personality pattern scale	
	Internalizing	Externalizing
Egotistic	-0.927	0.073
Dramatizing	-0.920	0.015
Introversive	0.858	-0.048
Inhibited	0.838	-0.258
Self-Demeaning	0.795	0.256
Doleful	0.784	0.303
Unruly	-0.289	0.862
Forceful	-0.174	0.859
Submissive	0.078	-0.842
Conforming	-0.551	-0.783
Oppositional	0.484	0.772
Borderline Tendency	0.485	0.626

women ( $n=19$ ), compared to 74.1% ( $n=40$ ) women in the externalizing group. Mean age for the externalizing group was 14.67 (SD=1.28), similar to mean age for the internalizing group ( $M=14.91$ ;  $SD=1.44$ ).

Furthermore, there were no statistically significant differences between profiles in relation to psychopathological variables such as *personal history of self-harm* (present in 38.1% of the internalizing group,  $n=8$ , compared to 48.1% in the externalizing group,  $n=26$ ), *maladaptive disorders or personality traits* (present in 19% of the internalizing group,  $n=4$ , compared to 7.4% present in the externalizing group,  $n=4$ ), *bullying* (present in 23.8% of the internalizing group  $n=5$ , compared to 35.2% of the externalizing group,  $n=19$ ), *childhood abuse* (present in 4.8% of the internalizing group,  $n=1$ , compared to 7.4% of the externalizing group,  $n=4$ ), the *existence of previous suicidal behavior* (present in 28.6% of the internalizing group,  $n=6$ , compared to 40.7% of the externalizing group,  $n=22$ ) or in relation to the *number of admissions due to suicidal behavior* (more than once in 14.3% of the internalizing group,  $n=3$ , compared to 22.2% of the externalizing group,  $n=12$ ).

### Expressed concerns of the MACI

For the *expressed concerns* category of the MACI, there were statistically significant differences between profiles,

with the externalizing group scoring significantly higher in the scales: *Identity Diffusion* ( $t_{(73)}=-7.067$ ,  $p<0.001$ ,  $IC\ 95\%$  -40.02 - -22.41,  $d=1.85$ ), *Self-Devaluation* ( $t_{(73)}=-7.922$ ,  $p<0.001$ ,  $IC\ 95\%$  -46.43 - -27.77,  $d=2.09$ ), *Body Disapproval* ( $t_{(73)}=-4.546$ ,  $p<0.001$ ,  $IC\ 95\%$  -37.51 - -14.64,  $d=1.21$ ), *Peer Insecurity* ( $t_{(73)}=-3.974$ ,  $p<0.001$ ,  $IC\ 95\%$  -39.78 - -13.21,  $d=1$ ), *Family Discord* ( $t_{(73)}=-2.290$ ,  $p=0.025$ ,  $IC\ 95\%$  -24.87 - -1.73,  $d=0.56$ ), and *Childhood Abuse* ( $t_{(73)}=-5.126$ ,  $p<0.001$ ,  $IC\ 95\%$  -35.83 - -15.77,  $d=1.3$ ).

The internalizing group scored significantly higher than the externalizing group on the *Sexual Discomfort* scale ( $t_{(73)}=3.256$ ,  $p=0.002$ ,  $IC\ 95\%$  8.34 - 34.66,  $d=0.81$ ) and in the *Social Insensitivity* scale ( $t_{(73)}=2.065$ ,  $p=0.043$ ,  $IC\ 95\%$  0.480 - 27.23,  $d=0.53$ ).

Table 2 shows the descriptive statistics for the MACI expressed concern scales for each group of adolescents.

Table 2	Descriptive statistics for each group for each of the MACI Expressed Concern scales	
MACI Scale	Group	Mean (SD)
<i>Identity Diffusion</i>	Internalizing (n=21)	48.86 (16.25)
	Externalizing (n=54)	80.07 (17.51)
<i>Self-Devaluation</i>	Internalizing (n=21)	51.38 (16.73)
	Externalizing (n=54)	88.48 (18.74)
<i>Body Disapproval</i>	Internalizing (n=21)	50.67 (19.43)
	Externalizing (n=54)	76.74 (23.29)
<i>Sexual Discomfort</i>	Internalizing (n=21)	56.24 (28.32)
	Externalizing (n=54)	34.74 (24.60)
<i>Peer Insecurity</i>	Internalizing (n=21)	45.19 (27.20)
	Externalizing (n=54)	71.69 (25.43)
<i>Social Insensitivity</i>	Internalizing (n=21)	54.10 (25.69)
	Externalizing (n=54)	40.24 (26.25)
<i>Family Discord</i>	Internalizing (n=21)	48.57 (26.28)
	Externalizing (n=54)	61.87 (21.01)
<i>Childhood Abuse</i>	Internalizing (n=21)	53.33 (20.38)
	Externalizing (n=54)	79.13 (19.25)

## CLINICAL SYNDROMES OF THE MACI

For the *clinical syndromes* category of the MACI, statistically significant differences were observed between profiles, with the externalizing group presenting significantly higher average values in the scales: *Eating Dysfunctions* ( $t_{(73)}=-3.670$ ,  $p<0.001$ ,  $IC\ 95\%$  -29.79 - -8.82,  $d=1$ ), *Substance Abuse Proneness* ( $t_{(73)}=-5.343$ ,  $p<0.001$ ,  $IC\ 95\%$  -38.00 - -17.35,  $d=1.29$ ), *Impulsive Propensity* ( $t_{(73)}=-3.909$ ,  $p<0.001$ ,  $IC\ 95\%$  -32.22 - -10.46,  $d=0.94$ ), *Depressive Affect* ( $t_{(73)}=-7.290$ ,  $p<0.001$ ,  $IC\ 95\%$  -43.53 - -24.84,  $d=1.92$ ) and *Suicidal Tendency* ( $t_{(73)}=-7.166$ ,  $p<0.001$ ,  $IC\ 95\%$  -39.82 - -22.49,  $d=1.88$ ).

In addition, adolescents with an internalizing profile obtained significantly higher average values in *Anxious Feelings* ( $t_{(73)}=2.236$ ,  $p=0.028$ ,  $IC\ 95\%$  1.53 - 26.61,  $d=0.59$ ).

In the *Delinquent Predisposition* scale, no statistically significant differences were observed between the profiles.

Table 3 shows the descriptive statistics for the MACI clinical syndromes scales for each group of adolescents.

Table 3	Descriptive statistics for each group for each of the MACI Clinical Syndromes scales	
MACI Scale	Group	Mean (SD)
<i>Eating Dysfunctions</i>	Internalizing (n=21)	52.71 (16.77)
	Externalizing (n=54)	72.02 (21.68)
<i>Substance Abuse Proneness</i>	Internalizing (n=21)	45.62 (23.86)
	Externalizing (n=54)	73.30 (18.55)
<i>Delinquent Predisposition</i>	Internalizing (n=21)	46.86 (25.26)
	Externalizing (n=54)	45.24 (25.46)
<i>Impulsive Propensity</i>	Internalizing (n=21)	48.38 (25.90)
	Externalizing (n=54)	69.72 (19.17)
<i>Anxious Feelings</i>	Internalizing (n=21)	64.57 (22.12)
	Externalizing (n=54)	50.50 (25.30)
<i>Depressive Affect</i>	Internalizing (n=21)	52.00 (16.67)
	Externalizing (n=54)	86.19 (18.79)
<i>Suicidal Tendency</i>	Internalizing (n=21)	53.38 (15.89)
	Externalizing (n=54)	84.54 (17.27)

## DISCUSSION

The present study aims to assess the applicability of the dimensional model of higher order that categorizes personality dimensions into the internalizing and externalizing profiles<sup>25</sup>. In addition, the study compares both profiles in order to detect possible differences in the clinical severity of each one, as this could be relevant in planning specific interventions that could reduce the risk of suicidal behavior relapse.

The results of this study add to those studies that put forward the same approach to the dimensions of personality<sup>25,28</sup> and that conceptualize it as two structures of higher order that predispose to the internalization or externalization of symptoms, congruently with results obtained by Hopwood and Grilo<sup>25</sup>. The dimensions with higher values (greater than 0.8) for the internalizing profile were observed in the *Introversive*, *Inhibited*, *Self-Demeaning* and *Doleful* scales; while those with higher values (greater than 0.8) observed for the externalizing profile in the *Unruly*, *Forceful*, and *Oppositional* scales.

Likewise, the results of the present study agree with those obtained in a study carried out in the same socio-cultural environment with adolescents that consume cannabis, which also found this two-factor categorization of personality profiles<sup>29</sup>. However, while in that sample of cannabis consumers, an equal distribution between internalizing and externalizing profiles was observed, in the present sample of adolescents with suicidal behavior, a predominance of the externalizing profile was revealed. In the results of the present study, the MACI *Suicidal Tendency* scale identified the externalizing profile as the one with the highest propensity for suicidal behavior. This tendency, together with the predominance of the externalizing profile in the present sample, is very revealing and finds a good fit in Klonsky's approach to differentiate people with suicidal ideation from people who perform suicide attempts<sup>30</sup>, specifically in the theoretical construct of "suicide capacity", as described by the author in his Three Step Theory (3ST)<sup>31</sup>. Klonsky based his theories on Joiner's interpersonal theory<sup>32,33</sup>, which states that a "thwarted belongingness" and a "perceived burdensomeness" especially associated with "hopelessness" and "suicide capacity" are constructs that explain the suicide process. Klonsky also incorporated the Integrated Motivational-Volitional Model of Suicidal Behavior (IMV), which proposes that Suicidal behavior is a result of a complex interaction of factors, whose proximal predictor is "one's intention to engage in suicidal behavior"<sup>34</sup>. The Three Step Theory (3ST) postulates that suicidal ideation results from the combination of "pain and hopelessness", coupled with a "lack of connection or attachment to other people", an "absence of significant work or vital project" and "suicide capacity" itself, and that precisely the conjunction of these

factors could explain the transition from suicidal ideation to action (suicides and suicide attempts)<sup>31</sup>. Klonsky proposes three specific categories of variables that contribute to suicide capacity: 1) Dispositional, mainly of genetic character; 2) Acquired, in a process of habituation to experiences associated with pain, injury, fear and death, and; 3) Practical, referring to factors that make the suicide attempt easier, such as access to knowledge and lethal means<sup>31</sup>.

The present study proposes, therefore, to consider the internalizing and externalizing profiles as "dispositional" variables. Thus, in adolescents with suicidal ideation the externalizing profile would present a greater propensity to carrying out attempts through two channels: the dispositional and the acquired, as the characteristics of this profile, with a greater tendency to externalize symptoms, would favor the step from ideation to action, thereby increasing "suicide capacity". In addition, adolescents with an externalizing profile present more severe clinical conditions, including depressive affect, which during childhood and throughout adolescence can be accompanied by a greater irritability and behavioral alterations<sup>35</sup>. This clinical severity and the high depressive affect of these patients would explain the presence of pain and hopelessness necessary to develop suicidal ideation as set forth by Joiner<sup>32,33</sup> and Klonsky<sup>30</sup>.

It is believed that these constructs and moderating factors raised by the different theories<sup>31-34</sup> can be influenced differently by the presence of internalizing and externalizing personality traits, thus, taking them into consideration would not only enrich the explanatory theoretical framework, but could also improve the planning of intervention goals that reduce suicidal risk. Therefore, in an adolescent with an internalizing profile (inhibited, introversive, self-demeaning and doleful, and with a greater tendency to experience feelings of anxiety), a first approach would pursue linking the adolescent to a more individual project, either academic or work, with the aim of increasing his/her connectedness, thus reducing the severity of their suicidal ideation, while addressing in later stages of the treatment possible difficulties in his/her relationship with peers derived from his/her profile. On the other hand, in an adolescent with an externalizing profile, activities that are more oriented to the attachment to adapted peer groups, such as joining a sport team, could be considered with the same objective of increasing connectedness and attachment, in this case to peers. In addition, this profile would require a restrictive protection plan, with particular emphasis on depriving access to lethal or harmful means to a certain extent, with the aim of not increasing their "suicide capacity".

Regarding the limitations of the study, the main one is the relatively small sample size. Although it is larger than the 65 adolescents in Simón and Sanchis' study<sup>20</sup>, it would be advisable to increase the size of the sample in order to

have a greater number of males in case any aspect related to sex differences has been hidden by their low presence in the sample. The second limitation is that follow-ups of these cases were not available to verify whether the profiles gave rise to a differentiated evolution and, therefore, whether these profiles are really key elements in the understanding of suicidal behavior.

In spite of these limitations, the data from the present study indicate that further research should develop and validate differential interventions, retaining the treatment goals proposed by Klonsky & May<sup>31</sup>: 1) reduce pain, 2) increase hope, 3) increase connectedness or attachment and 4) reduce suicide capacity), while taking into account the differential characteristics of both personality dimensions<sup>25</sup>.

## CONCLUSIONS

The dimensional structure demonstrated by the present study's results can aid therapeutic orientation without the need for a comprehensive list of possible diagnoses with different comorbidities, or a specific plan for each of the many predominant personality traits, as these are not very informative, since ten of the twelve personality scales of the MACI have shown links to suicidal behavior. In addition, this therapeutic orientation can be optimized if the postulates of the main theoretical models are taken into account.

The present study highlights the existence of two personality profiles among adolescents who present suicidal behavior with a higher prevalence of the externalizing profile. Including the adolescent who presents suicidal behavior in one of these two profiles can help the professional make clinical decisions in planning effective interventions aimed at reducing the risk of suicidal behavior relapse.

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