



ORIGINAL ARTICLE

Self-esteem and state-trait anxiety in Lima's university adults

*Autoestima y ansiedad estado-rasgo en adultos universitarios de Lima*Alejandra Rodrich Zegarra ^{1*}¹ Universidad San Ignacio de Loyola, Peru.* Correspondence: alejandra.rodrich.z@gmail.com

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ABSTRACT

Background: This study sought to determine the relationship between self-esteem and anxiety in emerging adults from private universities in Lima. **Method:** Cross-sectional and correlational in design, it was aimed at determining the degree or strength of association between self-esteem, state / trait anxiety in emerging adulthood, for this purpose, the Coopersmith Self-Esteem Inventory (Form C) and the Anxiety Questionnaire State-Trait (IDARE) were applied to 221 university students of both sexes, aged between 18 to 25 years. **Results:** In the hypothesis test, a statistically significant negative correlation coefficient was obtained between self-esteem and state / trait anxiety, being the size of the median effect in both cases. Regarding comparisons in self-esteem and anxiety trait / state according to sex and age, no differences were found. **Conclusion:** From the analyzes, it is concluded that there are an inverse and significant relationship between self-esteem and state / trait anxiety in emerging adults from Lima.

Keywords: Self-Esteem; State Anxiety; Trait Anxiety.

RESUMEN

Introducción: Este estudio buscó determinar la relación entre la autoestima y la ansiedad en adultos emergentes de universidades privadas de Lima. **Método:** De diseño transversal y correlacional, se orientó a determinar el grado o fuerza de asociación entre la autoestima la ansiedad estado/rasgo en la adultez emergente, para ello se aplicó el Inventario de Autoestima de Coopersmith (Forma C) y el Cuestionario de Ansiedad Estado-Rasgo (IDARE) a 221 universitarios de ambos sexos, con edades comprendidas entre 18 a 25 años. **Resultados:** En el contraste de las hipótesis, se obtuvo un coeficiente de correlación negativa moderada y estadísticamente significativa entre la autoestima y la ansiedad estado/rasgo, siendo el tamaño del efecto mediano en ambos casos. Con respecto a las comparaciones en autoestima, ansiedad rasgo y ansiedad estado según sexo y edad, no se hallaron diferencias. **Conclusión:** A partir de los análisis se concluye que existe una relación inversa y significativa entre la autoestima y la ansiedad estado/rasgo en adultos emergentes de Lima.

Palabras clave: Autoestima; Ansiedad Estado; Ansiedad Rasgo.

BACKGROUND

Within the life cycle, youth is considered one of the stages of human development in which more changes are experienced, this period, also called emerging adulthood, takes place between 18 and 25 years, and receives this name because individuals at this stage they cannot be considered neither adults nor adolescents (Arnett, 2004; Kail and Cavanaugh, 2011). There are economic, academic, social, intimacy, autonomy and significant decision-making pressures, which are experienced as overwhelming and could generate anxiety (Riggs and Han, 2009; Schulenberg, Bryant, and O'Malley).

The World Health Organization (WHO, 2017) has estimated that more than 260 million people in the world are affected by this disorder. A recent study reported that the prevalence of anxiety disorders in adults worldwide ranged between 3.8% and 25%, with important differences depending on the geographical area (Brenes et al., 2005) since, for Anglo-Saxon cultures, the Rates ranged from 3.8% to 10.4%, while for Hispanic / Latino culture, the prevalence was 6.2% and 3.2% for Central and Eastern Europe.

In particular, in the case of Lima, the latest prevalence reports that were made by the Honorio Delgado-Hideyo Noguchi Mental Health Institute of the Ministry of Health indicated that 10.5% of adults suffer from anxiety (Honorio Delgado-Hideyo Noguchi Mental Health Institute, 2012).

Taking these data into account, it can be seen that there is a significant prevalence of this difficulty in adults in both countries around the world and in Lima, and it is likely that in the case of emerging adults it will be triggered by all these regulatory challenges demanded by society due to this, it will be essential to have a good psychological adjustment, which is related to high self-esteem (Cameron and Granger, 2018), since this is an important strength to face them.

It should be noted that, in Peru, the population of people whose ages correspond to emerging adulthood has increased considerably in recent years because, according to the National Institute of Informatics and Statistics (INEI, 2016) as of June 30, 2017 it was registered the figure of 8 million 440 thousand 802 people between 15 to 29 years of age, which represents 27% of the total population; and it is expected that by 2021, this population will amount to 8 million 512 thousand 764 people (INEI, 2017). Thus, the changes that occur in this period and the increase in this population provide arguments, both at a psychological and demographic level, for emerging adults to be an important sector of the population that needs to be studied and cared for,

Self-esteem is defined by Coopersmith (1981) as the assessment that the individual makes and maintains with respect to himself, and reveals the extent to which he feels capable, productive, important and worthy whose dimensions are: personal, social and family; Research in emerging adult populations suggests that it has a positive relationship with indicators of good psychological adjustment such as happiness (Cheng and Furnham, 2004), positive affect (Orth et al., 2012), social skills and acceptance (Cameron and Granger, 2018). Therefore, this construct has positive consequences in the internal world (thoughts and perceptions) and external of an individual (behavior) (Stinson,

Logel, Zanna, Holmes, Cameron, Wood and Spencer, 2008), that is why, those who have high self-esteem, on average they are happier,

In contrast, low self-esteem (Pu, Hou & Ma, 2015) is related to indicators of poor mental health, such as alcohol consumption and depression (Diener et al., 2003). Therefore, the scientific interest in addressing the development of self-esteem and its predictive factors, in emerging adulthood, is due to its beneficial value for psychological health in this period (Hutteman, Nestler, Wagner, Egloff & Back, 2015).

Regarding the difference of gender in self-esteem, the cross-cultural research of Bleidorn et al., (2016) with participants from 48 countries, including Peru, found that men reported higher self-esteem than women, in addition an increase in self-esteem related to the age from late adolescence to middle adulthood. Despite these broad cross-cultural similarities, cultures differed significantly in the magnitude of the effects of gender and age on self-esteem; These differences were due to variations in the socioeconomic, sociodemographic and cultural value indicators of each country. Likewise, the meta-analysis by Zuckerman, Li and Hall (2016) on gender differences in self-esteem (1,148 studies from 2009 to 2013, total N = 1,170,935) found a small effect, favoring men; also,

While self-esteem is a factor that contributes to mental health, anxiety is considered to be an indicator of poor adjustment at this stage, since the authors agree that the higher the anxiety (trait and state), the lower the ability. adjustment in the functioning of an individual, (Durand and Cucho, 2015; Kuba, 2017; García, 2014; Medrano, 2017; Gutiérrez, 2017 and Flores, 2017). Spielberger and Lushene (1970) distinguish between state anxiety and trait anxiety, the former being the way in which a person is at a given moment, is modifiable over time, and is characterized by feelings of tension, apprehension, uncomfortable thoughts and concerns, along with physiological changes. Instead, trait anxiety is a stable and consistent predisposition of behavior, that is, the individual tends to act in a similar way at different times and in a variety of situations. Both concepts (trait and state) are interdependent, since people with a high anxiety trait are more predisposed to present high anxiety states when exposed to anxiogenic stimuli from the environment. Therefore, physiological factors,

Studies carried out in Peru in university students related anxiety with psychoeducational and socio-emotional variables such as academic procrastination (Durand and Cucho, 2015), depression, irrational beliefs (Kuba, 2017 and García, 2014), burnout (Medrano, 2017), academic performance (Gutiérrez, 2017), finding that trait and state anxiety are located at moderate and high levels. Based on the bibliographic review, it has been found that the factors that could lead to high levels of anxiety in this population are: obtaining good academic results, adapting to a new social life, establishing bases for intimacy, living more autonomously and achieving economic independence, (Riggs and Han, 2009 and Schulenberg, Bryant, and O'Malley, 2004), because according to Papalia (2010) these development tasks are experienced as stressors for emerging adults. The latter is one of the most relevant tasks at this stage, as it provides a sense of satisfaction and value (Papalia, 2010), and to achieve this it

is necessary to be inserted in a labor system, this is evidenced in the findings of Giannoni (2015) in Peru, who reported that non-working university students had higher anxiety scores compared to those who did work.

Regarding gender differences, the literature has shown that women have higher levels of anxiety than men, so in Peru Giannoni (2015) and Riveros et al. (2007) found that women obtained scores higher in trait anxiety and college status. In the same way, in Brazil, Benevides and Rodrigues (2010), and in Spain Martínez-Otero (2014) and Balanza et al., (2009) found significant differences in terms of sex, with higher levels of anxiety in females with respect to the male in the same population. In sum, the findings highlight the importance of self-esteem and anxiety at this stage of development, however, the nature of the relationship between these two variables in this age group has not yet been ultimately established, as demonstrated by the research carried out by Baumeister et al., (2003) in which it is indicated that both descriptive and correlational studies have yielded different results regarding the relationship between self-esteem and anxiety, that is, the magnitudes of the correlations obtained differ between studies in terms of the correlation coefficient obtained and the respective statistical significance. However, in Spain two experimental studies have been identified, in which it was evidenced that treatments to improve self-esteem with a cognitive-behavioral approach had the effect of reducing anxiety in the participants (Narváez, Rubiños, Cortés-Funes, Gómez, Raquel and García, 2008 and Cardenal and Díaz Morales, 2000). It should be noted that, considering other age groups, negative correlations have been reported between self-esteem and anxiety in children in Peru (Peñaloza, 2015), in adolescents and adults in Spain (Núñez and Crisman, 2016; Núñez, Martín-Albo, Grijalvo and Navarro, 2006) and finally, in adults in Anglo-Saxon countries (Lee and Hankin, 2009; Riketta, 2004; Watson, Sulz and Haig, 2002).

In conclusion, taking into account that emerging adulthood is a stage of changes that could cause anxiety (Papalia, 2010), self-esteem would be considered as a support factor to face these changes since it is related to a good psychological adjustment. Likewise, considering that international studies studied the relationship between self-esteem and anxiety at this stage, they have yielded inconsistent results (Baumeister, Campbell, Krueger, & Vohs, 2003), and no antecedents have been identified that relate both constructs in emerging university adults in Peru.

The main objective of this research was to determine the relationship between self-esteem and trait state anxiety with a sample of 221 students between 18 and 25 years old from private universities in Lima.

METHOD

Design

The present constitutes an empirical study with quantitative methodology, of the *ex post facto* type, since it uses an associative strategy without manipulating variables to verify the hypothesis raised (Montero & León, 2007).

Participants

The population consisted of a sample of emerging adults who belong to private universities in the city of Lima. The selection of the participants was non-probabilistic (Hernández et al., 2014) and the sample size amounted to 221, a value calculated through the *G * Power 3.1* software (Faul, Erdfelder, Buchner & Lang, 2009), considering a minimal correlation of .20 according to Cohen (1988), a probability of .05 and a power of .85.

The sample was made up of 221 students, however, three cases were excluded because they presented at least one of the protocols applied incompletely, the analyzes were based on 218 participants among men ($n = 90$, 41.3.8%) and women. ($n = 128$, 58.7%) belonging to three private universities in Lima (Peru). The ages ranged from 18 to 25 years, with the average age being 19 years and 7 months ($SD = 1.99$).

The inclusion criteria were students from private universities in Lima between the ages of 18 and 25 who wish to participate in the research. The exclusion criteria were students from private universities whose nationality is not Peruvian.

Instruments

Coopersmith Self-Esteem Inventory

Instrument created by Coopersmith (1959) for the quantitative evaluation of self-esteem, being the C format for adults (16 years and older) the one used in the present investigation in the version validated by Lachira (2013). This consists of 25 items to which the subject must respond according to the identification they have or not with the statement in terms of true (Like me) or false (Not like me), so each answer is worth one point, and the total self-esteem score results from the sum of the total of the partial scores by area.

The reliability of the original instrument, was found by the test-retest and two halves, ranged between .78 and .92, being satisfactory (Coopersmith, 1959). In Peru, this inventory has been used by various authors, thus Tarazona (2013) reported a Kuder-Richarson 20 coefficient of .61 and a general Cronbach's Alpha of .79; and Yparraguirre (2013) obtained a reliability of .605 according to Kuder-Richarson.

Regarding the evidence of validity of the instrument, Panizo (1985) reported a correlation of .80 between the original and form C, and a correlation coefficient between .42 and .66 with self-concept and other self-esteem scales. Tarazona (2013), evidenced the content validity relying on the judgment of experts where the concordance index was higher than .80. Yparraguirre (2013) also submitted the instrument to the judgment of experts, where the qualifications granted by the experts were subjected to the binomial test, obtaining a score of .012, therefore, $p < .05$ it is established that the agreement between judges is statistically significant.

State-Trait Anxiety Questionnaire (IDARE)

This questionnaire was created and validated in Palo Alto, United States, by Spielberger, Gorsuch and Lushene in 1970, in order to measure, in a relatively brief and reliable way, anxiety traits and states. The Spanish version of this inventory was published in 1975 by Spielberger, Martínez, González, Natalicio and Díaz (Spielberger, and Díaz-Guerrero, 1975). For this research,

the version validated in the Peruvian context by Domínguez et al., (2012) will be used.

The IDARE is made up of 40 items separated into two self-assessment scales to measure state anxiety and trait anxiety. Each scale has 20 items with a Likert-type response. The Anxiety-Trait (A / R) scale is scored from 1 to 4 where 1 is not at all and 4 is a lot, while the Anxiety-State scale (A / E) is scored from 1 to 4 where 1 is almost never and 4 is almost always, both scales have inverse items.

In the original studies, evidence of convergent validity was provided relating the IDARE with the IPAT Anxiety Scale of Cattell and Scheier ($r = .75$), and with the Manifest Anxiety Scale-TMAS of Taylor ($r = .80$).

Domínguez, Villegas, Sotelo and Sotelo (2012) conducted a psychometric review of the State-Trait Anxiety Inventory (IDARE) in a sample of university students from Lima ($N = 133$), obtaining evidence of validity by internal structure through exploratory factor analysis (AFE), reporting a factorial structure that explained 48.61% and 42.11% of the variance for the Trait Anxiety (RA) and State Anxiety (AE) scale respectively, with the factor loadings of the items in both cases greater than .40. It should be noted that the principal components method, Horn's parallel analysis and an oblique rotation (Promax) were used for both analyzes. The instrument presented a structure that reflects the construct to be evaluated and that is correlated with the literature.

As evidence of validity in relation to other variables, of the convergent type, Pearson's correlation coefficients were obtained between the scores of the trait / state anxiety scales and the state / trait depression inventory, which turned out to be statistically significant ($p < .01$), direct and moderate (AE-Euthymia state $r = .698$, AE, Euthymia trait $r = .383$, AE-Euthymia trait $r = .618$, AE, Euthymia trait $r = .422$).

Regarding reliability, in the original studies in university and pre-university students from the United States ($n = 484$) they found an internal consistency by Cronbach's alpha of .86 for IDARE-R. The test-retest reliability after 104 days was .77. In the Peruvian context the IDARE has been used by several authors, among them, Arias (1990) found that the analysis of reliability by the Cronbach coefficient was .87 for the Anxiety-State scale and .84 for Anxiety-Feature. Likewise, Pardo (2010) reported a reliability index of alpha coefficients of .806 and .857 with respect to the Anxiety-Trait scale and State Anxiety, respectively, and the item-test correlation of all items was adequate. Torrejón (2011) obtained a Cronbach's alpha reliability of .881 y .890 for the A-Trait and A-State scales. In Oliden's research (2013), the IDARE reached an internal consistency of Cronbach's alpha of .85 for the Anxiety-R scale, reaching similar values to the previously mentioned study. Domínguez, et al., (2012) found acceptable reliability indicators through the internal consistency method, for Anxiety-State a total alpha of .908 was obtained and for Anxiety-Trait the total alpha was lower, of .874.

Process

The instruments were applied to university students from Lima belonging to 4 private universities, for which the researcher

presented, through interviews, the project to the academic authorities of each university. Once the approvals were obtained, it was coordinated with the administrative staff to carry out the applications according to the schedule, in the classrooms and at the indicated times.

The instruments were applied in groups before or after class hours, with the following protocol being: presentation and information about the objective of the research, requesting their participation through the signing of the informed consent, then they proceeded to distribute the sociodemographic record, the Coopersmith Self-esteem inventory and the State-Trait anxiety questionnaire for each student.

Data analysis

Once the information was collected, it was entered into the SPSS-22 Statistical Program (Statistical Package for Social Sciences), where data analyzes (descriptive and inferential) were subsequently carried out to reach conclusions. The normality of the data was determined using the Shapiro-Wilks (W) statistic, showing that both variables had distributions that did not approach normality ($p > .05$), which is why, for the inferential analyzes for the contrast of the hypotheses were used non-parametric statistics. The association between the variables was estimated using Spearman's non-parametric statistic (r_s), while the differences of the variables according to sex were estimated using the Mann Whitney U statistic (U) and the Kruskal-Wallis was used for the comparison according to age. Once the aforementioned statistics were obtained, the magnitude of the correlations was interpreted, the empirical criteria (Hemphill, 2003) derived from a review of 380 meta-analytical studies were applied instead of the conventional ones by Cohen (1988). These values include the low level ($r_s < .20$), moderate ($r_s < .30$) and high ($r_s > .30$). To consider the difference between groups as significant, the magnitude of r_b was taken into account: $< .10$ as insignificant; between .10 and .30, low, between .30 and .50, moderate; and greater than .50, high. The empirical criteria (Hemphill, 2003) derived from a review of 380 meta-analytical studies were applied instead of the conventional ones of Cohen (1988). These values include the low level ($r_s < .20$), moderate ($r_s < .30$) and high ($r_s > .30$). To consider the difference between groups as significant, the magnitude of r_b was taken into account: $< .10$ as insignificant; between .10 and .30, low, between .30 and .50, moderate; and greater than .50, high. The empirical criteria (Hemphill, 2003) derived from a review of 380 meta-analytical studies were applied instead of the conventional ones of Cohen (1988). These values include the low level ($r_s < .20$), moderate ($r_s < .30$) and high ($r_s > .30$). To consider the difference between groups as significant, the magnitude of r_b was taken into account: $< .10$ as insignificant; between .10 and .30, low, between .30 and .50, moderate; and greater than .50, high. between .30 and .50, moderate; and greater than .50, high. between .30 and .50, moderate; and greater than .50, high. between .30 and .50, moderate; and greater than .50, high.

Ethical aspects

The researcher presented, through interviews, the project to the academic authorities of each university, after obtaining the approvals, the application of the same was coordinated with

the administrative staff and the participation of each student had the prior consent of each participant through consent. reported for participants considering the American Psychological Association (APA) standards.

The instruments were applied in groups before or after class hours, requesting their participation by signing the informed consent, where the tests are anonymous.

The limitation of this study is that the results cannot be generalized, since the sample with which we will work will be a non-probabilistic sample. In addition, the relationship that will be established between the two constructs will be a correlational type, but not a causal relationship.

RESULTS

The results of the analysis of the goodness of fit to the normal curve - carried out using the Shapiro-Wilk (W) test - indicate that the scores on the self-esteem inventory, and on the state and trait anxiety questionnaires obtained statistics with significant values. In other words, these variables present a form of distribution that is not close to normal at the population level (Table 1). It is due to these results that the inferential analyzes were performed using non-parametric statistics.

From the analysis, a moderately negative and statistically significant relationship between self-esteem and state anxiety was obtained, the effect size being high. It can also be observed that

there is a moderate negative and significant relationship between self-esteem and trait anxiety (Table 2), with a high effect size.

Table 3 shows the comparisons in the study variables according to sex, finding that there are no statistically significant differences in self-esteem (areas and global) or in anxiety (state and trait), obtaining insignificant effect sizes in all contrasts ($rb < .10$).

In the analysis according to the age of the participants, it can be observed in Table 4 that there are no statistically significant differences in self-esteem, state anxiety and trait anxiety, with the associated effect sizes being insignificant ($\epsilon^2 < .10$).

DISCUSSION

The main objective of this research was to determine if there is a relationship between self-esteem, state anxiety and trait anxiety in emerging adult students from private universities in Lima, this stage was considered since, according to Arnett (2004), during it the professional exploration, search for personal identity and autonomy, aspects that could affect levels of anxiety and self-esteem. From the main objective, the following objectives were derived: to compare self-esteem according to sex and age, to compare trait anxiety according to sex and age, and to compare state anxiety according to sex and age.

When analyzing the results, it is confirmed that there is a sig-

Table 1. Descriptive statistics and analysis of normality of scores in the variables (N = 218).

	N° of items	α	Ω	EEM	Range r_{it}	M	DE	W
Anxiety								
State	20	0.898	0.902	3.01	.253 - .678	39.68	9.43	.974 **
Feature	20	0.895	0.901	3.09	.285 - .728	40.04	9.55	.967 ***
Self esteem	25	0.846	0.852	1.98	.204 - .572	17.12	5.04	.927 ***

Note. α : coefficient of internal consistency. Ω = Omega coefficient. r_{it} : item-test correlation. SEM: Standard

Error of Measurement. W = Shapiro-Wilk. ** $p < .01$, *** $p < .001$

Table 2. Spearman's correlations between anxiety and self-esteem (N = 218).

	Anxiety		Self esteem			
	State	Feature	Himself general	Social	Family	General
Anxiety						
State	-					
Feature	0.74	-				
Self esteem						
Himself general	-0.653	-0.658	-			
Social	-0.479	-0.475	0.587	-		
Family	-0.536	-0.561	0.53	0.426	-	
General	-0.682	-0.703	0.904	0.753	0.767	-

Note: All correlations have a significance level of $p < .001$

nificant negative relationship between self-esteem and anxiety (state and trait). Regarding this finding, three explanations are proposed. In the first place, the most categorical explanation for this relationship is due to the fact that both self-esteem and anxiety depend on cognitive processes, which is why according to Polaino-Lorente (2010), the first is built with the representations and cognitions that each person possesses of herself, and these will interfere with how much or how little she esteems herself. In the same way it occurs in anxiety, according to Clark and Beck (2012), cognitions or beliefs exercise an intermediary function between the situation and the emotion, that is, our

way of thinking plays an important influence on how we feel in a situation, if anxious or serene.

Therefore, our beliefs and thoughts will have the consequence that self-esteem and anxiety are affected, due to this McKay (1991) indicates that there are cognitive distortions that cause the person to selectively base themselves on certain negative facts of reality, ignoring the rest and causing self-esteem to be affected, which agrees with Polaino-Lorente (2012), who mentions that a well-founded self-esteem must be supported by reality. Likewise, it happens with anxiety since one of the basic principles of cognitive theory is that dysfunctional beliefs

Table 3. Inferential analysis of differences in anxiety and self-esteem between men (n = 128) and women (n = 90).

	Sex	<i>Md</i>	<i>SE</i>	<i>U</i>	<i>p</i>	<i>r_b</i>
Anxiety						
State	Female	38.5	0.885	5729	0.946	0.021
	Male	40	0.906			
Feature	Female	39	0.889	5341	0.361	0.077
	Male	37.5	0.924			
Self esteem						
Himself general	Female	10	0.249	5584	0.7	0.025
	Male	10	0.296			
Social	Female	5	0.123	5305	0.308	0.067
	Male	4	0.151			
Family	Female	4	0.145	5406	0.433	0.049
	Male	4	0.177			
General	Female	18.5	0.443	5662	0.83	0.017
	Male	18.5	0.538			

Note: *Md* = median: *SE* = Standard Error. *U* = Mann-Whitney *U*.

Table 4. Inferential analysis of differences in anxiety and self-esteem according to age (N = 218)

	χ^2	<i>gl</i>	<i>p</i>	ε^2
Anxiety				
State	3.73	7	0.81	0.017
Feature	3.52	7	0.834	0.016
Self esteem				
Himself general	6.27	7	0.509	0.029
Social	3.78	7	0.804	0.017
Family	9.46	7	0.221	0.044
general	6.24	7	0.512	0.029

Note: χ^2 = Chi-square. *gl* = degrees of freedom. ε = effect size.

about the threat and errors in cognitive processing produce an excessive reaction that is incongruous with the reality of the situation, causing fear excessive (Clark & Beck, 2012).

Second, another interpretation of the negative relationship between anxiety and self-esteem found, is suggested by Moreno (2009), he mentions that good self-esteem develops coping ability, therefore, the higher the self-esteem, the more likely that the individual perform better coping to adapt to different circumstances, and present less anxiety, as indicated by Kosic (2006).

Third, inversely Moreno (2009) also proposes that people who feel a certain type of anxiety in certain circumstances perceive themselves as limited in this situation and could develop low self-esteem, that is, the way a person faces a scenario where experiencing anxiety will influence your self-esteem.

Due to these three reasons Oblitas (2004) mentions that there are interventions with a cognitive approach that address self-esteem, where the therapist works with the patient's negative thoughts and with the cognitive distortions that deteriorate self-esteem in order to reduce anxiety, this remains evidenced in two Spanish experimental studies, in which it was shown that treatments to improve self-esteem with a cognitive-behavioral approach had the effect of reducing anxiety in the participants (Narváez, Rubiños, Cortés-Funes, Gómez, Raquel and García, 2008 and Cardenal and Díaz Morales, 2000).

In short, it is highlighted that for emerging adults it will be relevant to have good self-esteem, since this will be an important basis to face changes generating less anxiety, since the pressures that are experienced in this stage make it one of the most critical. With respect to the other stages of development, due to the fact that young people are subjected to vocational and academic stressors (Fernández, 2009), likewise, social expectations regarding their economic, labor, family and social responsibility, make up potential stressors (Darling, McWey, Howard & Olmstead, 2007).

When analyzing the descriptive results, it was found that there are no significant differences when comparing the self-esteem scores between women and men, which differs from what was found by Castañeda (2013), and Milicic and Gorostegui (2011) who found that women have higher anxiety than males in samples of adolescents and children respectively, however, it is important to mention that these populations differ from the present study in the age of the sample. In the same way, the cross-cultural research of Bleidorn et al., (2016) with participants from 48 countries, including Peru, also found that men reported higher self-esteem than women, however, such a discrepancy may be due to the fact that in the research of Bleidorn et al., (2016) it is also mentioned that countries differed significantly in the magnitude of gender effects on self-esteem; due to socioeconomic, sociodemographic and cultural value indicators, in addition, self-esteem was only measured with a single item.

With regard to anxiety, the present study also found that there are no significant differences when comparing the trait anxiety and state anxiety scores between men and women, this disagrees with what was reported in the background research, since, in Peru, the studies by Cornejo (2012) and Olivo (2012)

concluded that women present greater anxiety than men between the ages of 18 to 30 and 16 to 18 years respectively, according to each study. Likewise, in the investigations of Martínez-Otero (2014), in Spain, and Benevides and Rodrigues (2010), in Brazil, higher anxiety scores were obtained in women than in men, in a population of adolescents in both studies.

The discrepancies of the results of this research with the findings of previous studies, in relation to the fact that there are no significant differences in self-esteem, state anxiety and trait anxiety between women and men, are due to the fact that the aforementioned investigations (Martínez-Otero, 2014; Bleidorn et al., 2016; Cornejo, 2012; Olivo, 2012; and Benevides and Rodrigues, 2010) were carried out 4 years ago, where women probably still did not play the roles of today, since according to the INEI (September 2017) to the year 2016 indicates that the Gender Inequality Index is located at a value of .391 which reflects that Peru is in a course of decreasing gender inequality, ranking above 9 Latin American countries such as Colombia and Brazil.

Therefore, development tasks such as professional exploration, economic independence and the search for personal identity (Arnett, 2004), which are some of the goals that could cause anxiety (Papalia, 2010), and whose fulfillment would lead to a sense of satisfaction and value (Rice, 1997), are objectives that both men and women will want to achieve equally at this stage, which is why there are no differences in the levels of self-esteem and anxiety. On the other hand, one of the indicators of Gender Equality in Peru is the empowerment of women (INEI, 2017), which favors their self-esteem and, therefore, compared to previous years, women have more tools to face the adverse situations that arise and consequently your anxiety levels will be lower.

Finally, it was found that there are no significant differences in terms of self-esteem, state anxiety and trait anxiety scores between ages (18-25 years), results similar to those of Zuckerman et al., (2016) who found that the difference of gender in terms of self-esteem decreased throughout early and middle adulthood. These results are based on the fact that, the so-called developmental tasks, which are changes at both a professional and personal level, that generate a sense of responsibility that can be overwhelming causing anxiety (Papalia, 2010) and at the same time, meeting these challenges successfully leads to happiness and good self-esteem (Rice, 1977) occur within this age range (18-25 years), this would suggest that, for example, comparing the self-esteem or anxiety between a young man of 20 with another of 22, there would be no differences since both are struggling to achieve these tasks imposed by society, which will affect their self-esteem and anxiety.

On the other hand, it can be observed that the sample is made up mostly of young people aged 18 (34.7%), 19 (20.3%) and 20 (17.4%) years, therefore there would not be such an equitable percentage by age for an important comparison. It should be noted that the research focused on young people between 18 and 25 years of age, which represents a limitation, since the results could only be generalized for this age range and only in private universities.

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CONFLICTS OF INTEREST

This study does not present a conflict of interest.

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