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Self-esteem, emotional regulation, and their relationship with the risk of self-harm and physical and emotional well-being in adolescents.

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Resumen: La adolescencia representa una etapa crucial, en la que se enfrentan múltiples riesgos que influirán en su salud (Espinoza et al, 2022). La baja autoestima, regulación emocional, insatisfacción corporal e insatisfacción con la vida aumentan el riesgo de trastornos alimentarios y autolesiones (Tigasi y Hernández, 2023). El objetivo es determinar el papel de variables emocionales en la autolesión, insatisfacción corporal y satisfacción con la vida en adolescentes. Método. 86 estudiantes evaluados mediante: "Escala de autoestima de Rosenberg", "Cuestionario de riesgo de autolesión (CRA)", "Cuestionario de Influencias sobre el Modelo Estético Corporal (CIMEC-26)", "Cuestionario de Regulación Emocional para niños y adolescentes (ERQ-CA)" y "Escala de Satisfacción con la Vida (SWLS)". Resultados: Se encontró una relación negativa entre autoestima e insatisfacción corporal, y riesgo de autolesiones. Además, una relación positiva entre la autoestima y la satisfacción con la vida, pero no con la regulación emocional. Por otra parte, se observaron diferencias significativas de género en todas las variables, excepto en regulación emocional. Conclusiones. Fomentar la autoestima es clave para abordar la insatisfacción corporal y prevenir autolesiones.

Palabras Clave: Autoestima, Regulación emocional, Satisfacción con la vida, Insatisfacción corporal, Adolescencia.

Título: Autestima, regulación emocional y su relación con el riesgo de autolesiones y el bienestar físico y emocional en adolescentes. **Abstract:** Adolescence represents a crucial stage during which individuals face multiple risks that will influence their health and identity (Espinoza, 2022). Low self-esteem and emotional regulation, body dissatisfaction, and life dissatisfaction increase the risk of eating disorders and self-harm (Tigasi y Hernández, 2023). The aim is to determine the role of emotional variables in the risk of self-harm, body dissatisfaction, and life satisfaction in adolescents. Method. 86 students in the third year of Secondary Education were assessed using the following instruments: "Rosenberg Self-Esteem Scale", "Self-Harm Risk Questionnaire (CRA)", "Questionnaire of Influences on Body Aesthetic Model (CIMEC-26)", "Emotional Regulation Questionnaire for Children and Adolescents (ERQ-CA)", and "Satisfaction with Life Scale (SWLS)". Results. A negative relationship was found between self-esteem and body dissatisfaction, as well as self-harm risk. Additionally, a positive relationship between self-esteem and life satisfaction, but not with emotional regulation. Moreover, significant gender differences were observed in all variables, except for emotional regulation. Conclusions. Fostering self-esteem is crucial for addressing body dissatisfaction and preventing self-harm. Investigating emotional variables in adolescence is essential for preventing self-harm and reducing the risk of suicide.

Keywords: Self-esteem, Emotional regulation, Life satisfaction, body dissatisfaction, Adolescence.

Adolescence represents a crucial stage in human development, during which significant changes occur in biological, psychological, emotional, and social domains, leading to the transition from childhood to adulthood. During this stage, adolescents encounter multiple risks that can influence their identity, such as gaining independence, perception and evaluation of their bodies, socializing with friends, and sexual identity (Espinoza, 2022). It is important to note that these factors may be related to health problems.

The body aesthetic model becomes an important factor in the formation of adolescent identity. In Western societies, characterized by an excessive cult of the body, the media tends to associate beauty, seduction, and youth with a perfect and idealized body, often leading to dissatisfaction and anxiety in young people due to the discrepancy between their perceived body image and the cultural aesthetic model (Munguía, 2016). This discrepancy is often related to a history of Eating Disorders (EDs), as the anxiety generated affects behavior, thoughts, and emotions associated with food, influencing the individual's perception of themselves.

Regarding gender, it is observed that the majority of individuals suffering from EDs are women; however, the number of men is increasing. Ahern (2011) comments that this is due to a greater exposure on social media regarding the thinness ideal, contributing to the development of dissatisfaction with body image through constant comparison. On the other hand,

Thompson and Stice (2001) argue that mere exposure to this body ideal does not generate dissatisfaction, but rather the extent to which it is internalized. In other studies such as those by Mendia and colleagues (2022), it has been found that women have more concerns about weight, body shape, and eating habits, tend to feel more dissatisfied with their body image, and internalize the thinness ideal. Regarding differences in maladaptive behaviors, it has been found that women engage more in food restriction, while men engage more in physical exercise.

Regarding these disorders, a large amount of research shows an association between EDs and Non-Suicidal Self-Injury (NSSI). This type of self-injury is defined by the DSM-5 as any socially unacceptable behavior that intentionally causes harm to the body without conscious suicidal intent. These behaviors are performed with the expectations of relieving negative feelings, resolving interpersonal difficulties, or inducing a state of positive feelings. Upon engaging in the behavior, relief is experienced, and the individual may develop a dependence on repeating them (APA, 2014).

Over the past years, an increase in both self-injuries and EDs has been detected. The consequences of both disorders can be very serious, and their severity should be perceived as supportive, allowing the individual to use a different means of expression than usual (Zaragozano, 2017). In the last decade, greater

attention has been paid to the identification of these behaviors, but it is of great importance to continue studying them, especially in adolescents. In López's study (2023), it is observed how after the COVID-19 pandemic, there has been a deterioration in the mental health of adolescents, presenting higher depressive symptoms, self-injuries, and suicidal behaviors. These data are confirmed by the Children and Adolescents Risk Care Foundation (ANAR), which attended 145% more calls from minors with suicidal thoughts and 180% more self-injuries than in previous years. The Spanish Society of Pediatric Emergencies (SEUP) reported a 122% increase in "non-accidental drug intoxication" and a 56% increase in the diagnosis of "suicide/suicide attempt/self-harming ideation" (Shweta et al., 2020).

Adolescents are a vulnerable population to these disorders as it is considered a complicated stage in managing and understanding emotions. Emotional regulation is a very important variable in performance, adjustment, and well-being, but it can also present difficulties and be maladaptive, resulting in the loss of the functional value of emotions. This emotional dysregulation can lead to mental and physical health problems in individuals, being linked to self-injuries among other disorders (Pérez and Guerra, 2014). Additionally, changes in their bodies can generate insecurities that may affect the self-concept that begins to develop at this time. Many studies point to the importance of self-esteem in

these stages as their personality is not yet solidified, which could lead to low life satisfaction (Nogales, 2022) and be the basis of multiple disorders. Low self-esteem will make them perceive themselves as worthless, their physical, emotional, and social needs will be unsatisfied, and therefore, it will affect their individual and social development. Research suggests, therefore, that it is a predictor of completed suicide, being related to suicidal ideation, suicide risk, and acting as a mediator in non-suicidal self-injuries (Honorato et al., 2019).

Taking into account the aforementioned aspects, it is important to highlight that some risk factors related to EDs and non-suicidal self-injurious behaviors are associated with low self-esteem, difficulties in expressing and regulating emotions, the influence of the cultural aesthetic model, and life dissatisfaction.

Based on the available evidence, the study aimed to determine the role played by emotional variables (self-esteem and emotional regulation) in the risk of self-injury, body dissatisfaction, and life satisfaction in a sample of adolescents.

Based on this objective, various hypotheses were formulated: (1) Lower self-esteem is associated with greater body dissatisfaction and higher risk of self-injury; (2) Lower self-esteem is associated with lower emotional regulation and life satisfaction; (3) There is a relationship between gender and emotional regulation, suggesting that the female gender is associated with higher scores in

emotional regulation; (4) There is a relationship between gender and self-esteem, suggesting that the female gender is associated with lower self-esteem; (5) There is a relationship between gender and the risk of self-injury, with the female gender being most related to this construct; (6) There is a relationship between gender and body dissatisfaction, suggesting that the female gender is associated with worse scores in relation to the body aesthetic model.

Methodology

Participants

The sample was obtained through a non-probabilistic intentional sampling procedure. It consisted of 86 third-grade students from Compulsory Secondary Education (ESO) in a school in the province of Castellón, distributed across four different classrooms. The ages ranged from 14 to 16 years old, and they were residents of Spain but born in different countries such as Colombia (2,3%), England (1,2%), Germany (1,2%), Argentina (1,2%), Jordan (1,2%), Pakistan (1,2%), Venezuela (2,3%), Cuba (2,3%), and Spain (87,2%). Among these participants, 47.7% were female, and 52,3% were male. Regarding their family, 84,9% had siblings, of which 45,3% were first-born, 29,1% were second-born, and 10,5% were born third, compared to 15,1% who were only children. Regarding extracurricular activities, 43% engaged in physical exercise, 18,6% attended academies, 7% participated in any other extracurricular activity, and 31,4% did not engage in any extracurricular activities. Furthermore, it was observed that 100% of the students had a mobile device and used social media, with an average usage of 3,25 hours and had access to an average of 2-3 (2,73) different types of platforms. Among them, Instagram and TikTok stood out as the most used. Finally, regarding sleep hours, students rested an average of 7,6 hours per day.

Instruments

The instruments used were collected in a booklet, composed of various sociodemographic variables to establish a profile of the participants included in the study, and the following questionnaires:

- ***Rosenberg Self-Esteem Scale (1965).*** This is one of the most widely used scales to assess self-esteem globally in adolescents. It was developed by Rosenberg in 1965 and includes ten items focusing on feelings of self-respect and self-acceptance. Items 1, 3, 4, 6, and 7 are stated positively, while the remaining items are considered reverse-scored. Initially designed as a Guttman scale, it later became known for its Likert-type scoring, where items are responded to on a four-point scale (1= strongly agree, 2= agree, 3= disagree, 4= strongly disagree). Therefore, the total score ranges from 10 to 40 points (Morejón et al., 2004).

- ***Questionnaire on Influences on Body Aesthetic Model, CIMEC-26*** (Toro et al., 1994). This questionnaire consists of 26 Likert-type

questions with three types of responses where 0 corresponds to "No, never" and 2 corresponds to "Yes, always". It evaluates body image as well as the influence of body aesthetic models and social situations on the thinness model.

It is considered the first questionnaire that attempts to assess sociocultural influences regarding EDs. It differentiated five factors: body image discomfort, influence of advertising, influence of verbal messages, influence of social models, and influence of social situations.

The authors established a cutoff score of 18 points to determine a risk factor in this variable; therefore, higher scores indicate a more negative self-perception of the personal aesthetic model in each scale (Cruz, 2022).

- *Self-Harm Risk Questionnaire (CRA)* (López et al., 2021). This questionnaire aims to identify the risk of self-harm, as evaluating these aspects is considered important for working on processes that promote family, social, and school well-being. It consists of 37 items grouped into 7 dimensions: (1) Affective regulation, which explains that self-harm is a strategy to regulate difficult-to-control emotions, (2) Dissociation, suggesting that self-harm is a solution to connect with one's own body when experiencing dissociation, derealization, or depersonalization, (3) Alternative suicidal behavior, where the person uses self-harm as a defense mechanism against the attraction of suicide, (4) Interpersonal influence, where the person uses self-harm to control people around them (blackmail), (5) Interpersonal boundaries, proposing that self-

harm is used as protection to recognize that one is independent of the environment, (6) Punishment, individuals learn from their social interactions that self-harm is a socially acceptable way of self-control to perform desired behaviors and decrease those that are not, and (7) Sensation seeking, explaining self-harm as a means to feel pleasure, excitement, and pain simultaneously but more intensely.

Moreover, the questionnaire showed optimal psychometric properties and is valid and reliable for assessing the risk of non-lethal self-injurious behaviors (López et al., 2021).

- *Emotional Regulation Questionnaire for Children and Adolescents (ERQ-CA)* (Gross y John, 2003). This questionnaire consists of ten items divided into two subscales corresponding to two emotional regulation strategies. On one hand, cognitive reappraisal is observed, consisting of six items and being a cognitive change strategy that allows reducing the emotional impact of a particular situation that generates multiple emotions. On the other hand, the other subscale is suppression, formed by four items, and is proposed as a way to modulate one's emotional response, leading to not showing or inhibiting its expression in behavior (Siurana, 2018).

- *Satisfaction with Life Scale (SWLS).* The original scale was created by Diener in 1985 and consists of five self-reports regarding one's satisfaction with life globally. Regarding its psychometric properties, it contains discriminant validity and adequate internal consistency. It has

been used in various studies as a measure of the life satisfaction component of subjective well-being, and it has been shown that scores correlate with measures of mental health and predict future behaviors, such as suicide attempts. Finally, the variables that best predict life satisfaction are loneliness, self-concept, and physical attractiveness (Atienza et al., 2000; Vázquez et al., 2013).

Procedure

The study was conducted after informing the school's management team and the Counceling team of the evaluation's objectives, who approved its implementation. Subsequently, informed consent was requested from the participants' families, always ensuring confidentiality of the data.

The instruments were administered during the first half hour of the "tutoring" class in each corresponding classroom. During this process, students were reminded that their responses were anonymous and confidential, and their participation was entirely voluntary. The evaluation procedure was carried out following the ethical principles for research on human subjects established in the Helsinki Declaration.

Once the data were collected, they were analyzed using the SPSS-v29 statistical package. The Kolmogorov-Smirnov normality test revealed that the sample distribution did not meet the criteria for normality, so non-parametric tests described below were used. To test the hypotheses and explore the relationships between the study variables, Spearman's Rho was used. Likewise, to evaluate differences based on gender, the non-parametric Mann-Whitney U test was employed, considering that one variable was numerical and the other categorical (gender).

Results

Spearman's Correlation. Following the data analysis using Spearman's correlation, to test the first two hypotheses, a significant negative relationship was found between self-esteem and body dissatisfaction (p < ,001) and between self-esteem and the risk of self-harming behaviors (p < ,001). Additionally, a positive relationship was found between self-esteem and life satisfaction (p < ,001), but not between the emotional regulation scale and self-esteem (p > ,05). However, as shown in Table 1: *Rho Spearman*, a significant positive relationship was found between the emotional regulation subscale "Expressive Suppression" and self-harm (p < ,001) and a negative relationship with self-esteem (p < ,05).

Regarding the use of *social media*, a relationship was found with different psychological variables and well-being in adolescents. On one hand, a significant negative correlation was found between the number of social media platforms used by adolescents and their sleep time (p < ,05), as well as with their self-esteem (p < ,001). Additionally, a significant negative, albeit weaker, relationship

was found between the number of social media platforms used and life satisfaction (p < ,05), and positive with the risk of self-harm (p < ,05) and body dissatisfaction (p < ,05).

On the other hand, a significant negative relationship was found between adolescents' *sleep hours* and the number of social media platforms used (p < ,001), body dissatisfaction (p < ,001), and self-harm (p < ,05). Furthermore, a positive, albeit weaker, relationship was observed between sleep hours and life satisfaction (p < ,05), and self-esteem (p < ,05).

Table 1: *Rho Spearman*

Scales	SE	BD	SH	ER	LS	NºSM	SH	ES
Self-esteem (SE)	1	-	-	-	-	-	-	-
Body dissatisfaction (BD	-,442**	1	-	-	-	-	-	-
Self-harm (SH)	-,487**	,481**	1	-	-	-	-	-
Emotional regulation (ER)	-,206	,229*	,219*	1	-	-	-	-
Life satisfaction (LS)	,575**	-,405**	-,377**	-,143	1	-	-	-
N.º Social Medias (NºSM)	-,288**	,260*	,226*	,111	,237*	1	-	-
Sleep hours (SH)	,250*	-,394**	-,271*	-,171	,271*	-,329**	1	-
Expressive suppression (ES)	-,215*	,192	,299**	267**	-,216*	,077	-,237*	1

Note. *p<,05. **p<,001.

Mann Whitney U Test. Regarding the Mann Whitney U test conducted to compare the differences between men and women in the five different variables: self-esteem, body dissatisfaction, self-harm, emotional regulation, and life satisfaction. The results show that there are significant differences between men and women in four out of the five variables analyzed, with the only variable where no significant differences were found being emotional regulation.

Specifically, as can be observed in Table 2: *Mann Whitney U Test (Scale)* and Figure 1: *Means by Gender (Scales)*, gender showed statistically significant differences in *body dissatisfaction* and *self-harm*, where women's scores (Mdn = 13, Range = 39 and Mdn = 0, Range = 112, respectively) were higher than those of men (Mdn = 6, Range = 32 and Mdn = 0, Range = 107, respectively). Additionally, there was also significance regarding gender in *life satisfaction* and *self-esteem*, where women's scores (Mdn = 18, Range = 29 and Mdn = 28,

Range = 23, respectively) were lower than those of men (Mdn = 24, Range = 30 and Mdn = 31, Range = 19, respectively). As for the effect size, it is observed that the difference is large in the self-esteem (Hedges' g = 0,832) and body dissatisfaction scales (Hedges' g = -0,992) and moderate in the risk of self-harm (Hedges' g = -0,432) and life satisfaction (Hedges' g = 0,460).

Table 2: *Mann Whitney U Test (Scale)*

Scales	Men (n=45) Mdn (Range)	Women (n=41) Mdn (Range)	U	P	Hedges'g
SE	31(19)	28(23)	536,5	<,001	,832
BD	6(32)	13(44)	500,5	<,001	-,992
SH	0(107)	0(112)	710	<,05	-,432
ER	6(6,17)	5,67(8)	882,5	,729	-,086
LS	24(30)	18(29)	673,5	<,05	,460

As previously mentioned, Figure 1: *Means by Gender (Scales)* illustrates gender differences in self-esteem, body dissatisfaction, self-harm, emotional regulation, and life satisfaction using a bar chart. The results indicate that women scored higher in body dissatisfaction and self-harm, while men scored higher in self-esteem and life satisfaction.

Figure 1: *Means by Gender (Scales)*
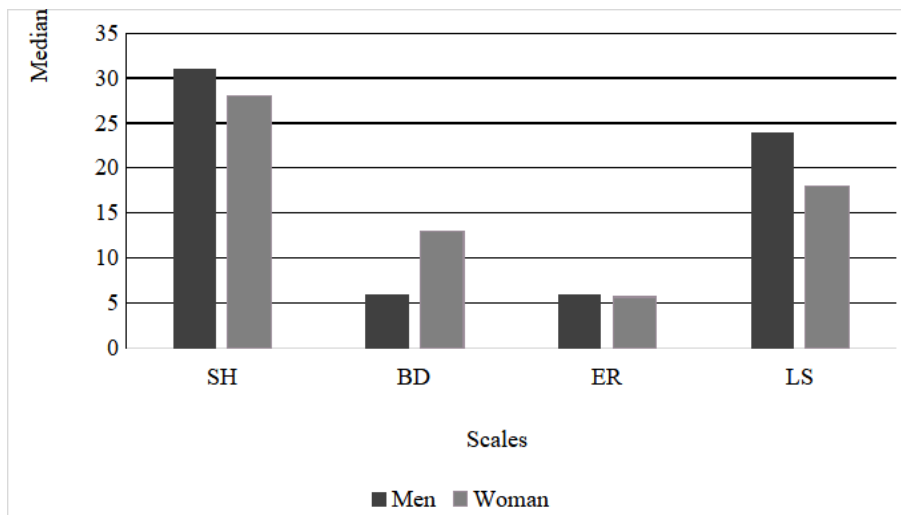
Note. *SE (Self esteem), BD (Body Dissatisfaction), ER (Emotional regulation) y LF (Life Satisfaction).

Regarding the subscales, it is important to note that differences between genders are not significant in all of them. Firstly, regarding Body Dissatisfaction, we can observe two scales where no significant difference between genders is observed (Table 3: *Mann Whitney U Test (Subscales)*: "Influence of verbal messages," with p = ,635 and a small, negative effect size

(Hedges' g), indicating a slight tendency favoring men, but it is not substantial, and "Influence of social models," with p = ,329 and a small, negative effect size, similar to the previous variable. Secondly, the subscales "SH. Sensation," "SH. Interpersonal influence," and "SH. Personal limits" also show no significant difference regarding gender (Table 3: *Mann Whitney U Test (Subscales)*. A p-value of > ,05 is observed in all three variables, with a small, negative effect size in each of them. However,

significant differences exist in the other subscales, where the mean of women was higher than that of men (

Figure 2: *Means by Gender (Subscales)*.

Finally, in the Emotional Regulation subscales "Reg. Expressive Suppression" and "Reg. Cognitive Reevaluation," no significant differences were observed either, with a p-value of > .05 in both, and a small, positive and negative effect size respectively.

Table 3: *Mann Whitney U Test (Subscales)*

Subscales	Men (n=45) Mdn (Range)	Women (n=41) Mdn (Range)	U	P	Hedges'g
BD.Image Discomfort	1(10)	7(16)	1526	<,001	-1,386
BD.Advertising	0(9)	1(14)	1296	<,001	-,859
BD.Verbal essage	0(5)	0(6)	973	,635	-,238
BD.Social Model	2(6)	2(8)	1033	,329	-,272
BD.Social Situation	1(5)	2(6)	1350	<,001	-,920
SH.Affective Regulation	0(17)	0(20)	1130	<,05	-,528
SH. Dissociation	0(19)	0(20)	1135	<,05	-,421
SH.Alternative Sui. Behavior	0(16)	0(13)	1156	<,05	-,525
SH.Punishment	0(13)	0(18)	1110	<,05	-,528
SH. Sensation	0(17)	0(18)	1059,5	,096	-,175
SH. Interpersona influence	0(20)	0(13)	1066	,081	-,174
SH. Personal limits	0(11)	0(14)	1002	,173	-,313
ER.Cognitive Reevaluation	3(3,70)	3,17(4)	1064	,220	-,256
ER. Expressive Suppression	2,75(4)	2,5(4)	825,5	,400	,093

As shown in

Figure 2: *Means by Gender (Subscales)*, although no significant gender differences were
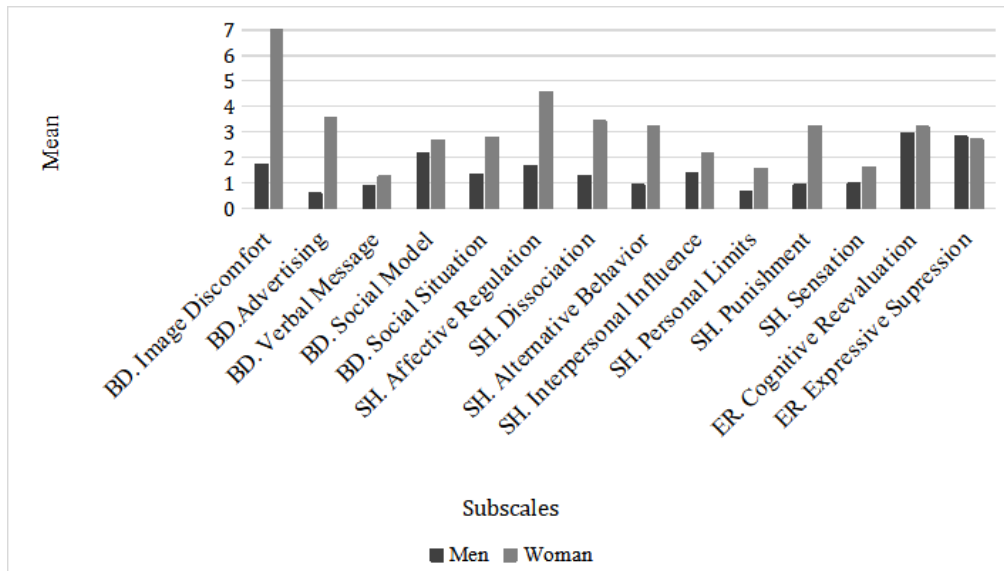
found in some subscales, significant differences were observed in others, such as "BD. Image Discomfort," "BD. Advertising," "BD. Social

Situation," "SH. Affective Regulation," "SH. Dissociation," "SH. Alternative Suicidal Behavior," and "SH. Punishment," where all

mean scores for women were higher than those for men.

Figure 2: *Means by Gender (Subscales)*

Discussion

The present research attempts to address a complex network of emotional factors that influence the risk of self-harm and the emotional and bodily well-being of adolescents. The obtained results offer significant insights that contribute to the understanding of these factors.

Following the Spearman correlation, the study's first hypothesis was confirmed, expecting to find a negative relationship between self-esteem and scales of body dissatisfaction and the risk of self-harm.

This result coincides with the findings of Neyra et al. (2022), who mention that self-esteem and body perception start in the mind and depend on how the person values and esteems themselves. If one does not like their body, it is difficult for them to feel good about themselves. Regarding its relationship with the risk of self-harming behaviors, this result aligns with the findings of Tigasi and Hernández (2023), where individuals with lower self-esteem present higher dissatisfaction with their bodies and are more likely to engage in self-harming behaviors, suggesting that fostering self-esteem could be an effective strategy to prevent the onset of self-harming behaviors in adolescent populations.

Reseach such as that of Nogales (2022) also argues that, in adolescence, without a firmly established personality, low life satisfaction could be generated, serving as the basis for multiple disorders. However, studies by Revilla (2022) differ from this study in that there is a direct and highly significant relationship between emotional regulation and self-esteem in adolescents. These latter findings contradict this study, as no relationship was found between emotional regulation and self-esteem.

Nevertheless, the correlations found with its "Expressive Suppression" subscale suggest that individuals who use this emotional regulation strategy are more likely to experience self-harming behaviors and tend to have lower self-esteem. These findings are in line with the study by Forkmann et al. (2014), suggesting that expressive suppression is a risk factor for suicidal ideation and self-harm, and with the study by Cárdenas (2022), where they found that emotional dysregulation, including the suppression of emotions, can increase the risk of suicidal ideation and self-harm in adolescents.

On the other hand, due to the increase in the use of new technologies, mobile phones have become one of the most valued products among adolescents, not only for ease of communication but also for many other functions it provides, such as generating an identity and prestige based on its characteristics. Just as these technologies have brought benefits to society, they can also be harmful and lead to the development of maladaptive behaviors in adolescents, making it

relevant to analyze these variables (Romo del Olmo, 2020). The findings are consistent with research such as that of Collantes and Tobar (2023), who found a relationship between social media addiction and low self-esteem in university students. Indeed, it is suggested that the lower adolescents' self-esteem, the greater their tendency to develop social media addiction. Likewise, the review by Posada-Bernal et al. (2021) notes that observing images on social media affects body image, which could lead to negative eating behaviors and emotional changes such as decreased self-esteem.

Regarding the negative relationship between the number of social media platforms used and life satisfaction, studies by Dörr et al. (2022) suggest that this could be related to changes in Western society over the past decades, including the increase in virtual, massive, and anonymous communication through these platforms.

Therefore, having many social media platforms could hinder the consolidation of identity and increase dependence on the environment, leading to difficulties in managing and containing high-intensity emotions and resorting to self-harm to manage these emotions. Additionally, López-Iglesias et al. (2023) mention that Instagram, one of the most used social media platforms by adolescents today, has become a competitive arena. Those who upload more photos with the "ideal" body receive approval from the public, which is appealing to young people.

On the other hand, various studies have confirmed the relationship between sleep disorders and eating disorders. It has been described that insomnia would be a warning symptom indicating a high probability of being associated with and strengthening the onset of eating disorders (Reyna, 2020). The relationship found in this study is consistent with the research by López-Iglesias et al. (2023), which associates social media abuse with multiple issues including anxiety, depression, and insomnia.

These results highlight the need for reflection regarding the role of social media in the lives of young people since they demonstrate that excessive use of these platforms can have a negative impact on the mental health and well-being of adolescents. Further research and addressing the variable of social media in the adolescent population are necessary to ensure a healthy and responsible use of these platforms, as well as always keeping in mind the importance of sleep in these maladaptive behaviors.

The *Mann-Whitney U Test* (Table 2: *Mann Whitney U Test (Scale)* and Table 3: *Mann Whitney U Test (Subscales)*) did not find differences between genders regarding emotional regulation. It is important to note that this is a complex process, and differences between groups can be influenced by multiple factors, so further studies are needed to better understand this relationship. On the other hand, the statistical significance in gender difference in

the risk of self-harm and life satisfaction is not very high, suggesting that the association between gender and these two variables may not be as strong as expected. It is interesting to note that gender differences are not significant in the self-harm subscales of "Sensation Seeking," "Interpersonal Influence," and "Personal Limits." This could indicate that the factors contributing to the risk of self-harm in men and women may be different. However, significant differences by gender were found in the subscales "Affective Regulation," "Dissociation," "Alternative Suicidal Behavior," and "Punishment." The latter may suggest that women who experience a higher risk of self-harm may also have a more pronounced tendency to self-punish, highlighting the importance of incorporating therapeutic approaches that address self-criticism and promote self-compassion.

Regarding the body image scale, gender differences were not significant in all subscales of the questionnaire, indicating that the factors influencing body dissatisfaction may vary by sex. Specifically, women scored higher in the subscales of body image discomfort, influence of advertising, and influence of social situations. This suggests that specific influences, such as discomfort with body image and social pressure, may contribute to greater body dissatisfaction in women, which could be related to the culturally constructed body aesthetic model and social expectations disproportionately placed on women. In the case of the influence of social situations, it indicates that women tend to be

more influenced by norms and subjective social pressures experienced in eating situations, as well as the social acceptance attributed to thinness. On the other hand, gender differences were not significant in the subscales of influence of verbal messages and influence of social models. This could indicate that both men and women respond similarly in these areas of body dissatisfaction, with both genders experiencing, on average, similar levels of influence from these variables.

However, the other hypotheses proposed were confirmed. Firstly, hypothesis 4 was confirmed, which expected to find a relationship between gender and self-esteem, suggesting that the female gender would be associated with lower self-esteem.

Additionally, hypothesis 5 was also supported, which proposed the existence of a relationship between gender and self-harm risk, suggesting that the female gender is associated with a higher risk. Finally, hypothesis 6 was confirmed, which expected to find a relationship between gender and body dissatisfaction, suggesting that the female gender would be associated with worse scores regarding the body aesthetic model.

As Neyra et al. (2022) mention, the results are in line with most studies, which identify the female gender with greater body dissatisfaction than the male gender. However, there are also some results where both sexes represent a high percentage of body dissatisfaction, but the way of perceiving the

body is different: men desire greater muscle volume while women desire a thinner silhouette.

Furthermore, other studies suggest that body dissatisfaction and risky eating behaviors directly and indirectly influence suicide risk and self-harm in women but not in men, as there is greater exposure on social media to the thinness ideal, contributing to the development of body image dissatisfaction by constantly comparing oneself to the "ideal". On the other hand, studies such as that of Barwick et al. (2022) do not find significant differences in life satisfaction by gender, which would not align with the research.

In conclusion, the results suggest that there are significant differences by gender in self-esteem, body dissatisfaction, self-harm risk, and life satisfaction, but not in emotional regulation. The findings suggest that women may be at greater risk of having low self-esteem, higher self-harm risk, greater body dissatisfaction, and lower life satisfaction compared to men, while the lack of significant differences in emotional regulation suggests that men and women may have similar skills for managing their emotions. These differences could have important implications for the emotional well-being of men and women and should be considered when developing mental health prevention and treatment programs.

It is of vital importance to continue researching emotional variables in adolescence, such as self-esteem and emotional regulation, in relation to the risk of self-harm and suicide, as self-harm behavior in adolescence can be a risk

factor for suicide attempts in adulthood. Additionally, in various studies, it has been found that most adolescents who die by suicide have a history of previous self-harm behavior. Therefore, research on emotional variables in adolescence is essential to prevent self-harming behaviors and reduce the risk of suicide in this population (Cárdenas, 2022).

In terms of possible lines of future research, the following are proposed. First, implement emotional education programs from childhood to adulthood, exploring the role of emotions, emotional regulation, and self-esteem in a cross-sectional context. Second, it is proposed to expand the study on the relationship between body dissatisfaction and the risk of suicide in adolescents, considering the role of social media. Third, replicate the study with a larger sample size and comparing various educational centers in different locations, to verify the relationship of the studied variables and emotional regulation, in addition to adding a variable regarding the risk of suicide in adolescents. Below are the main limitations that arose during the conduct of this study:

Firstly, the small sample size posed a significant challenge. The decision by the school administration, due to students' academic workload, to limit the sample to only four classes greatly reduced the sample size. This limited the study's ability to detect significant effects accurately by not providing a complete representation of the target population.

Additionally, selection bias emerges as another critical factor affecting the study, as participants were not randomly chosen but were assigned to certain classrooms based on availability. Collectively, these limitations underscore the importance of expanding the study while minimizing potential biases in future research to enhance the reliability and validity of the study.

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