Article

Self-Esteem among University Students: How It Can Be Improved through Teamwork Skills

Elena De Prada 1, Mercedes Mareque 2,∗ and Margarita Pino-Juste 3

1 ENLIFES-Department of English, French and German, Faculty of International Relations, University of Vigo, 32004 Ourense, Spain; edeprada@uvigo.es
2 ECOBAS-Department of Financial Economics and Accountancy, Faculty of Business and Tourism, University of Vigo, 32004 Ourense, Spain
3 GIES-10-Department of Didactics, School Organization and Research Methods, Faculty of Education Sciences and Sports, University of Vigo, 36005 Pontevedra, Spain; mpino@uvigo.es

* Correspondence: chedesmareque@uvigo.es

Abstract: Teamwork skills have been demonstrated to be excellent allies for the academic and professional sphere, and they can improve students’ psychological balance and self-esteem. For this reason, it is important to explore the relationship between teamwork skills and self-esteem. Considering the relevance of soft skills and self-esteem in university training, the main objective of this study is to determine whether there is a relationship between teamwork skills and the successful development of self-esteem, a fundamental emotional factor in education. Additionally, we will analyse how self-esteem is related to other socio-academic factors (age, sex, and GPA). A questionnaire was distributed to social science university students. The Rosenberg 10-item scale, which aims to measure feelings of personal worth and self-respect, has been used to determine self-esteem. To measure soft skills for teamwork, we chose the Teamwork Skills Questionnaire, which evaluates the skill level of an individual in order to participate effectively in teamwork. The regression model indicates that self-esteem predictors related to teamwork skills are decision making, leadership, and communication. The results suggest significant differences in some individual variables, such as sex and age, with lower self-esteem being observed in females and older students. The described enriching interactions suggest the need to integrate teamwork training and self-esteem fostering at university to offer students lifelong competencies for their future success.

Keywords: self-esteem; teamwork skills; individual differences; higher education; adaptability; coordination; decision making; interpersonal skills; communication

1. Introduction

Self-esteem is considered one of the most fundamental human needs, deeply related to well-being and happiness [1]. According to Rosenberg [2], self-esteem is the positive or negative perspective that one has towards oneself and the evaluation of one’s own thoughts and feelings. It is considered a personal psychological characteristic related to self-judgement based on one’s values about human beings [3]. In the academic field, it seems that self-esteem is a relevant variable, since it is associated with good school results and intrinsic motivation towards learning [4,5]. Hence, low self-esteem is associated with school failure and dropping out of school [6,7]. A positive relationship between self-esteem and psychological well-being has been observed in university students [8,9].

During their university studies, students are faced with new demands, and their level of life satisfaction will directly impact their perceptions and evaluations of themselves, and therefore their self-esteem. High levels of self-esteem in a university context have been associated with retention rates, greater emotional welfare, and better performance at work in the future [10]. Likewise, self-esteem should also be considered for future university graduates regarding job searching and, specifically, job interviews. University students...
with low self-esteem are at risk of performing poorly in job interviews. Hall et al. [11] have found that people with high self-esteem use better job search strategies, receive more positive evaluations, get more job offers, and cope better with unemployment than those with low self-esteem.

Accordingly, in addition to their students’ levels of achievement and acquisition of competencies, university academics, governing bodies, and policymakers should address psychological well-being that can be expressed, among other factors, by self-esteem. However, finding the right way to increase self-esteem in the university context is not an easy task. Optimising existing resources and providing opportunities through other adapted beneficial training initiatives might constitute an excellent way to achieve it.

Among the main competencies that students should acquire for their academic and professional success are soft skills for teamwork. Teamwork skills have been demonstrated to be excellent allies for the academic and professional sphere [12,13]. Additionally, and very importantly, they can improve students’ psychological balance and self-esteem [14]. For this reason, it is important to explore the relationship between teamwork skills and self-esteem.

In addition to the relevance of teamwork skills, the previous literature has found that several elements can influence self-esteem, both positively and negatively. Thus, in the case of students, self-esteem can be affected by various factors in the student environment itself, such as teachers, classmates, curriculum, academic performance, or academic year. It can also be determined by socio-demographic factors such as gender, age, parents’ level of education, social class, family occupation, number of siblings, place of residence (rural or urban), etc., or by economic factors such as the level of family income or the level of the student’s monthly expenditure, among others [15,16].

It is essential to consider that self-esteem may change throughout life because it can be affected by social, cultural, and economic changes [17]. It is still unknown whether self-esteem is a cross-cultural or a culture-specific phenomenon [18]. Due to the changing nature of self-esteem, an adequate approach and implementation at university can have fundamental and determining effects. Having detected low scores in self-esteem within the university population analysed, compared to other countries from the same environment [19], it is necessary to delve deeply into the possible reasons and ways to overcome this limiting situation. In light of the importance of soft skills and self-esteem in university education, a first hypothesis is put forward to address the primary objective of this study: to ascertain the potential correlation between teamwork skills and the successful development of self-esteem, a fundamental emotional factor in education. In addition, we propose three further hypotheses to investigate the correlation between self-esteem and other socio-academic variables, including age, gender, and grade point average (GPA) [15,16,20].

We will consider research carried out in different cultural contexts. The importance of this study lies in the consideration that teamwork is an essential and powerful skill to help develop many other beneficial areas and contribute to attaining personal, academic, and professional achievement. The described enriching interactions impress the need to optimise teamwork training and self-esteem fostering at university, to offer students lifelong competencies for their future success.

2. Theoretical Framework
2.1. Self-Esteem Concept

To this day, a straightforward concept of self-esteem has still not been formulated, with some controversy surrounding its conceptualisation and even methodological issues. Thus, notions such as self-concept, self-esteem, self-image, and self-perception are used indiscriminately as definitions. However, they are different constructs, although closely connected. According to Coelho et al., self-concept pertains to an individual’s perceptions regarding their competence or adequacy in specific areas of functioning, such as the academic context or social interactions. It is considered as a key factor in shaping one’s personality and serves as an indicator of personal satisfaction and psychological well-
Self-esteem can be defined as the perception we have of ourselves as a result of the thoughts, feelings, sensations, and experiences we have gathered throughout the course of our lives [22–24]. Individuals with high self-esteem have relatively positive attitudes towards themselves, while those with low self-esteem tend to have negative attitudes or are unsure of their feelings of self-esteem [25].

Castañeda [26] indicates the importance of developing self-esteem in young people, as successful individuals need to look after and be happy with themselves. In this sense, studies such as that of Simsek [14] point to a relationship between self-esteem and happiness. Thus, personal and professional success are closely linked to high self-esteem and motivation and a certain emotional intelligence level [27]. Furthermore, Pierce and Gardner [28] start from the premise that an individual’s self-esteem—shaped around their work and organisational experiences—plays a key role in determining employees’ motivation, attitudes, and behaviours related to work. For this reason, fostering motivation and self-esteem will be essential for students’ professional success.

2.2. Self-Esteem and Soft Skills for Teamwork

Teamwork skills are essential components in university training, as they have been associated with multiple benefits such as self-esteem, confidence, interpersonal and conflict management skills, leadership skills [29], extracurricular skills, or creativity [30]. Toader et al. [31] have concluded that there is a significant relationship between self-esteem and teamwork, highlighting that teamwork skills offer many advantages, including an increase in motivation, increased efficacy, and self-esteem.

In order to be successful, teamwork needs certain attributes and skills. In this sense, effective communication and cooperation between team members usually leads to greater productivity, more supportive and committed relationships, improved mental health, and increased self-esteem among team members [32]. Successful teamwork relies, among other factors, on self-esteem, as the team fosters a sense of self-confidence in its members. A feeling of fellowship among team members also provides opportunities to develop solid interpersonal relationships [33].

The existence of certain behaviours is necessary for teamwork to be successful: active communication and supportive behaviour; adaptability, flexibility, and personal attributes to tackle changing demands; and leadership and teamwork roles or the interrelation between members when working as a team [34]. These attributes contribute to the bonding between the team members, which enables teamwork to produce a high level of motivation and self-esteem, which in turn will help with managing problems and delays.

The presence of good social and interpersonal skills helps the team members to create a cooperative atmosphere, in which the need to care for each other prevails. Work groups whose members are psychologically strong are better prepared for teamwork and achieving planned goals [35].

Several authors highlight the importance of team members developing interpersonal skills and being capable of putting them into practice. Thus, self-esteem, the development of effective positive relations, decision making, trust, communication, conflict management skills, and problem solving are as important for the success of teamwork as is their members having the appropriate knowledge and technical skills [32].

**Hypotheses 1.** There is a relationship between self-esteem and teamwork competence and its factors (adaptability, coordination, decision making, interpersonal skills, and communication).

2.3. Self-Esteem and Socio-Academic Factors

2.3.1. Self-Esteem and Age

Age is an essential factor in self-esteem, as it appears that, as we approach adolescence, self-esteem declines [17]. In adolescence, self-esteem goes through a period of instability, because physical appearance and its resemblance to socially accepted beauty ideals are crucial for a positive self-perception [36]. As we approach adulthood, the level of self-esteem increases because we accept ourselves. In adulthood, people develop “ego integrity”
and accept their life achievements [18]. Self-esteem exhibits a quadratic pattern over the course of adulthood, with an initial rise during young and middle adulthood, peaking at approximately 60 years of age, and decreasing in old age [37].

Longitudinal studies by Orth et al. [38,39] provide evidence on the trajectory of self-esteem across people’s lives. They note that, although individuals may differ in their particular evolution, the results suggest that self-esteem tends to increase from adolescence to middle adulthood, peaking around age 50–60 and then declining at an accelerated rate into old age. In addition, a significant number of studies have analysed the evolution of self-esteem during each period of people’s development, i.e., during adolescence, during young adulthood, and during old age [16,40]. Overall, the results of these studies have been consistent with the life trajectory described previously in Orth et al.’s [38,39] studies, i.e., they show increases from adolescence to middle age and then a decline into old age.

Hypotheses 2. There is a correlation between self-esteem and age.

2.3.2. Self-Esteem and Sex

The previous literature has documented the existence of a relationship between self-esteem and gender (archival studies in social sciences tend to use “gender” and “sex” interchangeably. Formally, the distinction between the two concepts emerged in the mid-twentieth century when scholars started to distinguish the characteristics related to biological differences (female and male) as “sex” and those attributed to cultural and social processes (feminine and masculine) as “gender” [41] (p. 113). In the empirical analysis of this study, we used a dummy variable for biological sex. We asked the students to indicate their sex on the questionnaire), with most of these studies noting the presence of a significant gender gap, with males tending to report higher levels of self-esteem than females [15,20]. However, some other studies obtain the opposite results, such as the one conducted by Naderi et al. [42] or Subon and Sulaiman [43] on Malaysian university students. Further studies showed no significant impact of gender difference on self-esteem [44,45]. The different results reported in additional studies regarding gender differences in self-esteem could be explained by other socio-cultural, cognitive, biological, and even religious differences [15,18].

On the other hand, it should also be noted that, although most studies present a gender gap, both men and women follow the same trajectory through life: for both sexes, self-esteem is relatively high in childhood (with very similar levels of self-esteem in boys and girls), decreases during adolescence (with lower levels of self-esteem in adolescent girls), and gradually increases during adulthood before tending to decline in old age [40,46].

Hypotheses 3. There is a correlation between self-esteem and sex.

2.3.3. Self-Esteem and Academic Performance

The relation between self-esteem and academic performance has been analysed in the previous literature with mixed results [47]. Thus, for example, research by [48] or Vialle et al. [49] reported that academic performance has no significant impact on self-esteem; both variables do not correlate.

On the contrary, studies such as those by Debicki et al. [50], Gezu et al. [15], Saadat et al. [51], or Ye et al. [52] find a relationship between the level of self-esteem and academic performance, observing, in general, that students with higher academic performance have higher levels of self-esteem. Some of these studies conclude that high self-esteem is a possible reason for high academic achievement, as having good academic grades enhances students’ sense of dignity and competence [15]. Rozumah and Baharudin [53] note that students with higher academic achievement are more self-critical than students with moderate academic achievement. Therefore, promoting self-esteem in students could lead to an improvement in their academic performance.

Hypotheses 4. There is a correlation between self-esteem and GPA.
3. Method

3.1. Participants

An observational, transversal descriptive study was designed. A total of 615 students answered the questionnaire. The sample consisted mainly of women (N = 412); the rest were men (N = 203). No students identified themselves as non-binary. The age range of the students was between 18 and 43 years (M = 21.5; SD = 3.74). In Spain, most university degrees last four academic years, with few exceptions. In our sample, 31% were first-year students, 26% second-year students, 26% third-year students, and 17% fourth-year students.

3.2. Procedure

The survey was sent to students using the university’s online platform, thereby facilitating anonymous, voluntary, and confidential responses. Students completed the questionnaire in the classroom in the presence of the researchers. The data collected were treated following Organic Law 3/2018, of 5 December, on Personal Data Protection and the guarantee of digital rights in Spain. Participants were informed that their answers would be processed without their names or other identifying data and only used for scientific purposes. The ethical procedure always follows the rules of the Declaration of Helsinki. The data collected were processed in accordance with the British Educational Research Association’s (BERA) processes and in accordance with the European Union’s GDPR regulation.

3.3. Data Analysis

Prior to any additional analysis, descriptive statistics were calculated. The Student t-test for dichotomous variables was then used to conduct a means analysis. Pearson’s correlation was used to determine the relationship between the scale variables. Finally, to identify the predictors of self-esteem according to teamwork skills and socio-academic factors (sex, age, and academic performance), a multiple linear regression analysis was carried out. The effect size (ES), specifically Cohen’s d (d = standardised mean difference), was also calculated. The interpretation of this index proposed by the mentioned author is as follows: (i) small effect size: between 0.2 and 0.3; (ii) medium effect size: around 0.5; (iii) large effect size: 0.8 or higher. It should also be noted that this index could be higher than 1. A significance level of 0.10 was assumed in all the contrasts carried out. The data analysis was carried out using the SPSS statistical software tool (version 25).

3.4. Measures

3.4.1. Self-Esteem Level

The Rosenberg 10-item scale—which aims to measure feelings of personal worth and self-respect—has been used to determine self-esteem [2]. Five of the scale items are formulated positively, with the other five formulated negatively in order to control the acquiescence effect; the positive ones are scored from 1 to 4 and the negative ones from 4 to 1 [54]. Cronbach’s Alpha was also used to measure their reliability, giving a result of $\alpha = 0.871$, which implies high reliability [55] (Table 1).

3.4.2. Teamwork Skills

As mentioned in the preceding literature, there are various instruments available to evaluate teamwork. We used the Teamwork Skills Questionnaire (TSQ) [56] to assess an individual’s competence in collaborating effectively within a team. Despite its nature as a self-reporting tool, it is a highly effective method for assessing these cross-curricular skills, considering the challenges associated with employing direct measurements [57].

The questionnaire consists of six sub-scales: Adaptability, as indicated by items 15, 21, 26, 30, and 34, pertains to the ability to identify and address work-related issues in a suitable manner. Coordination, referring to items 6, 11, 17, 23, and 32, involves the capacity of an individual to effectively arrange and manage team operations with the goal of accomplishing a task within the designated timeframe. Decision making refers to the
capacity to utilise the available information for the purpose of reaching team decisions. The specific components that pertain to decision making are 3, 7, 12, 18, 24, and 28. Leadership, as indicated by items 1, 4, 8, 13, 19, 25, and 29, refers to the aptitude for guiding and directing a group. Items 5, 9, 14, 20, 33, and 36 correspond to the domain of interpersonal development and refer to the capacity to engage in cooperative interactions with fellow team members. Communication relates to the global transmission of unambiguous and accurate information [58] (p. 413).

Table 1. Cronbach’s Alpha test results.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alfa</th>
<th>No. Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>0.871</td>
<td>10</td>
</tr>
<tr>
<td>Adaptability</td>
<td>0.767</td>
<td>5</td>
</tr>
<tr>
<td>Coordination</td>
<td>0.695</td>
<td>5</td>
</tr>
<tr>
<td>Decision making</td>
<td>0.762</td>
<td>6</td>
</tr>
<tr>
<td>Leadership</td>
<td>0.868</td>
<td>7</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>0.814</td>
<td>6</td>
</tr>
<tr>
<td>Communication</td>
<td>0.800</td>
<td>7</td>
</tr>
<tr>
<td>General teamwork competence</td>
<td>0.939</td>
<td>36</td>
</tr>
</tbody>
</table>

The Teamwork Skills Questionnaire (TSQ) was selected based on its high reliability rate. The entire scale has consistently demonstrated good reliability, with values ranging from 0.84 to 0.97 [57,59]. The findings of our investigation indicate a satisfactory level of internal consistency, as evidenced by Cronbach’s Alpha values ranging from 0.695 to 0.868 [55] (Table 1).

3.4.3. Socio-Academic Factors

The questionnaire comprised a range of variables pertaining to certain socio-academic factors exhibited by the participants, namely their ages, sex, and academic success as measured by GPA. In Table 2 we can see the description of each variable.

Table 2. Description of variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>Students’ self-esteem level</td>
</tr>
<tr>
<td>Independent variables</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1: Man; 2: Woman.</td>
</tr>
<tr>
<td>Age</td>
<td>Age of students</td>
</tr>
<tr>
<td>GPA</td>
<td>Academic average mark previous year.</td>
</tr>
<tr>
<td>Adaptability</td>
<td>Recognition of problems at work and how they are responded to in an appropriate manner.</td>
</tr>
<tr>
<td>Coordination</td>
<td>Skill in organising team activities to ensure efficient task completion.</td>
</tr>
<tr>
<td>Decision making</td>
<td>Using the information available in order to make team decisions.</td>
</tr>
<tr>
<td>Leadership</td>
<td>Ability to lead a team.</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>Ability to interact in a cooperative way with other team members.</td>
</tr>
<tr>
<td>Communication</td>
<td>Global exchange of clear, precise information.</td>
</tr>
<tr>
<td>General teamwork competence</td>
<td>Level of general teamwork competence</td>
</tr>
</tbody>
</table>
4. Results

The levels of competence in each of the factors assessing students’ teamwork skills are relatively high, except for leadership (M = 2.71) and coordination (M = 2.99) (see Table 3). Similarly, the degree of efficiency in each of the categories assessing students’ teamwork competence is generally high, except for leadership (M = 2.71) and coordination (M = 2.99). The confidence interval allows us to predict the range within which any actual population value is expected to lie, with a margin of error of 5%. It can be observed that we are in close proximity to the mean.

Table 3. Level in self-esteem, in each of the teamwork competence factors, and in total.

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>I.C. 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inferior</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>29.60</td>
<td>5.65</td>
<td>10.00</td>
<td>40.00</td>
<td>29.15</td>
</tr>
<tr>
<td>Adaptability</td>
<td>3.08</td>
<td>0.525</td>
<td>1.00</td>
<td>4.00</td>
<td>3.04</td>
</tr>
<tr>
<td>Coordination</td>
<td>2.99</td>
<td>0.551</td>
<td>1.00</td>
<td>4.00</td>
<td>2.95</td>
</tr>
<tr>
<td>Decision making</td>
<td>3.06</td>
<td>0.517</td>
<td>1.00</td>
<td>4.00</td>
<td>3.01</td>
</tr>
<tr>
<td>Leadership</td>
<td>2.71</td>
<td>0.638</td>
<td>1.00</td>
<td>4.00</td>
<td>2.66</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>3.47</td>
<td>0.507</td>
<td>1.00</td>
<td>4.00</td>
<td>3.43</td>
</tr>
<tr>
<td>Communication</td>
<td>3.31</td>
<td>0.481</td>
<td>1.00</td>
<td>4.00</td>
<td>3.27</td>
</tr>
<tr>
<td>General teamwork competence</td>
<td>3.09</td>
<td>0.432</td>
<td>1.28</td>
<td>4.00</td>
<td>3.06</td>
</tr>
</tbody>
</table>

Hypothesis 1, on the possible correlation between the students’ level of self-esteem and soft skills for teamwork is accepted (Table 4). There is a positive relation between self-esteem and all the scale factors varying between 0.133 and 0.270. There is also a positive relationship between the level of self-esteem and general teamwork competence, with a value of 0.274.

In Table 4, we can also appreciate the results of Hypothesis 2 on the relationship between the level of self-esteem and age, observing the existence of a positive correlation between both variables (0.112). Therefore, the hypothesis is accepted, and we can affirm that the older the student is, the more self-esteem he/she has.

The results of Table 5 suggest significant sex differences, with women having lower self-esteem (M = 29.03). Hypothesis 3 is therefore accepted, although the effect size is medium (d = 0.30).

Table 4 above includes the results of Hypotheses 4, on the relationship between the level of self-esteem and academic performance as measured by student GPA, where the results show that there is no correlation between both variables; therefore, Hypothesis 4 is rejected.

Finally, a linear multiple regression analysis has been calculated, and the outcomes are displayed in Table 6. The expected sign for each variable with regard to the dependent variable (self-esteem) is provided. Furthermore, both the estimated coefficients (non-standardised) of the model and the typified coefficients (standardised), designated as $\beta$, are presented. The third and fourth columns present the values of the statistic and its significance ($p$-value < 0.05). The values of the statistic and its significance ($p$-value < 0.05) are provided in the third and fourth columns. The last column shows VIF values, all of which are less than 10. This indicates the absence of multicollinearity or internal correlations among the independent variables. The value of the adjusted coefficient of determination $R^2$ is 12.2%; that is, the model is capable of explaining approximately 12% of the variations of the dependent variable (self-esteem). The independence of the errors has been verified, since the Durbin–Watson value is 1.94.
Table 4. Correlations between self-esteem and each of the factors and in the total teamwork competence, age, and GPA.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Self-Esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
</tr>
<tr>
<td>Age</td>
<td>0.112 **</td>
</tr>
<tr>
<td>GPA</td>
<td>0.061</td>
</tr>
<tr>
<td>Adaptability</td>
<td>0.211 ***</td>
</tr>
<tr>
<td>Coordination</td>
<td>0.177 ***</td>
</tr>
<tr>
<td>Decision making</td>
<td>0.270 ***</td>
</tr>
<tr>
<td>Leadership</td>
<td>0.270 ***</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>0.133 ***</td>
</tr>
<tr>
<td>Communication</td>
<td>0.229 ***</td>
</tr>
<tr>
<td>General teamwork competence</td>
<td>0.274 ***</td>
</tr>
</tbody>
</table>

*** p < 0.01; N = 615.

Table 5. Student results for the level of self-esteem as a function of sex.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>Sig.</th>
<th>ES (Cohen’s d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>203</td>
<td>30.74</td>
<td>5.69</td>
<td>3.560</td>
<td>0.000***</td>
<td>0.3024</td>
</tr>
<tr>
<td>Woman</td>
<td>412</td>
<td>29.03</td>
<td>5.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** p < 0.01; N: 615.

Table 6. Multiple linear regression model.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model Coefficient</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>19.330</td>
<td></td>
<td>9.271</td>
<td>0.000***</td>
<td>1.111</td>
</tr>
<tr>
<td>Sex</td>
<td>−1.807</td>
<td>−0.150</td>
<td>−3.748</td>
<td>0.000***</td>
<td>1.020</td>
</tr>
<tr>
<td>Age</td>
<td>0.122</td>
<td>0.081</td>
<td>2.094</td>
<td>0.037**</td>
<td>2.595</td>
</tr>
<tr>
<td>Adaptability</td>
<td>−0.229</td>
<td>−0.021</td>
<td>−0.346</td>
<td>0.729</td>
<td>2.315</td>
</tr>
<tr>
<td>Coordination</td>
<td>−0.665</td>
<td>−0.065</td>
<td>−1.120</td>
<td>0.263</td>
<td>3.561</td>
</tr>
<tr>
<td>Decision making</td>
<td>1.517</td>
<td>0.139</td>
<td>1.932</td>
<td>0.054*</td>
<td>2.191</td>
</tr>
<tr>
<td>Leadership</td>
<td>1.245</td>
<td>0.141</td>
<td>2.494</td>
<td>0.013**</td>
<td>2.375</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>−0.055</td>
<td>−0.005</td>
<td>−0.085</td>
<td>0.933</td>
<td>3.767</td>
</tr>
<tr>
<td>Communication</td>
<td>1.678</td>
<td>0.143</td>
<td>1.931</td>
<td>0.054*</td>
<td></td>
</tr>
</tbody>
</table>

Durbin–Watson 1.94

R² 0.122

N 615

Note: dependent variable: self-esteem, *, **, *** p < 0.10, 0.05, 0.01.

Variable self-esteem is shown to be statistically significant (p-value = 0.000). The results indicate a statistically significant relation of 1% between the level of self-esteem and sex; 5% between the level of self-esteem and age and leadership; 10% between the level of self-esteem and decision making and communication skills. The variable with the greatest
specific weight over the response variable is sex ($\beta = 0.150$). However, of the six factors in the teamwork variable, communication skills were found to have the greatest specific weight over the response variable ($\beta = 0.143$). No statistical significance was found for adaptability, coordination, or interpersonal skills.

Therefore, based on the results obtained, we can state that: (i) female students have lower self-esteem than their male counterparts; (ii) older students have higher levels of self-esteem; and (iii) self-esteem appears to be closely associated with teamwork skills, specifically with decision making, leadership, and communication.

5. Discussion and Conclusions

Self-esteem is an essential factor in the lives of university students, since it is associated with good school results and intrinsic motivation towards learning. Hence, low self-esteem is associated with school failure and dropout [7]. Likewise, teamwork has been demonstrated to positively impact many different skills, capacities, interpersonal competencies, and self-esteem [29].

On the other hand, the previous literature has shown that several factors can influence the level of self-esteem, which can come from the student’s own environment, socio-academic variables, or economic factors [15,16]. The results of these studies are mixed, so more research is needed on the subject to provide new evidence and help consolidate research on determining which factors may affect students’ self-esteem. For this reason, considering the relevance of soft skills in university training, the main objective of this study is to determine whether there is a relationship between teamwork skills and the successful development of self-esteem, a fundamental emotional factor in education. Additionally, we analysed how self-esteem is related to other socio-academic factors (age, sex, and GPA).

Our study revealed that the level of self-esteem measured through the Rosenberg Self-Esteem Scale is relatively high (29.60) if we compare it with other countries in our environment. Thus, for example, the study by Mustafa et al. [19] conducted on Albanian and Kosovar university students shows a level of self-esteem measured through the Rosenberg Self-Esteem Scale of 22.31 for Albanian and 23.58 for Kosovar students. These authors compare this level of self-esteem with other European countries, stating that they are significantly lower than those found in Greece (31.29), Italy (30.56), Serbia (33.59), Turkey (32.14), and Croatia (31.94) [60]. However, these different scores might be due to the methodology used in the studies, as the samples used vary in size and composition.

5.1. Self-Esteem and Teamwork Skills

We could observe a significant relationship between self-esteem and all the teamwork skills under investigation. These results corroborate previous research and emphasise the importance of integrating teamwork skills into university training. While all the teamwork soft skills point towards a significant impact on self-esteem, leadership, communication, and decision making are the three skills that we can consider to be predictors of self-esteem (with a greater impact).

Regarding leadership, our results are consistent with previous research that corroborated this relationship [61,62] and emphasised the importance of delving deeper into leadership features to study its effects on self-esteem. Of particular relevance is that leadership can be taught, and research has indicated that specific training on leadership improved students’ self-esteem [62]. For this reason, students should be instructed to work in teams both for their academic life and their future professional career. Likewise, students must learn to be good leaders, learning to lead instead of manage. Self-esteem is built through leadership and empowerment, not through management and control [63].

Likewise, communication skills have been demonstrated to positively affect and increase self-esteem [31]. It has been highlighted that, when the psychological benefits of teamwork are achieved and there is commitment, a sense of belonging, collaboration, and trust, communication and coordination are more efficient and lead to better performance, increasing team members’ self-esteem [64].
Finally, the results of this study are consistent with previous research that emphasises that one of the most effective ways to build self-esteem and create synergy is to involve people in decisions [63]. As in our study, decision making has also been associated with academic performance. According to Filippello et al. [65], low academic performance is associated with lower self-esteem and more dysfunctional decision-making styles. Reversely, high academic performance is associated with higher self-esteem and more functional decision-making styles. Likewise, Colakkadioglu and Celik [66] concluded that the implementation of decision-making training sessions resulted in an improvement in self-esteem, recommending that decision-making training groups, workshops, and courses be included in the curriculum.

It has been pointed out that working in teams tends to produce higher self-esteem than working alone [35]. However, little is known about the adequate size for groups to increase self-esteem. Social self-esteem (i.e., a self-image of being effective and skilful in social relationships) responded more to a single relationship than having three groupmates (which provided more opportunity to communicate, provide leadership, and exert influence). Perhaps the complexity of working in a group of four may have caused participants to feel somewhat inept socially. Working with a partner seems to have a powerful effect on social self-esteem. More is not necessarily better when it comes to social self-esteem [67].

5.2. Self-Esteem and Age

A relationship is observed between self-esteem and age; the older the student, the higher the level of self-esteem. Age is an essential factor in self-esteem, as it appears that as we approach adolescence, self-esteem declines [17]. In adolescence, self-esteem goes through a period of instability because physical appearance and its resemblance to socially accepted beauty ideals is crucial for a positive self-perception [36]. As we approach adulthood, our level of self-esteem increases because we accept ourselves.

Our findings are consistent with the previous literature, which states that self-esteem increases as we leave adolescence and approach adulthood. A study by ul Haq [16] conducted on university students observes that students older than 19 years old have higher levels of self-esteem when compared to those younger than 19 years old. The 19–21 age group is less likely to have high self-esteem when compared to the under-19 age group. Participants in the 21–23 age group have a 1.763 times higher probability of developing high self-esteem than those under 19 years old. And participants over 23 years of age have a higher likelihood (3.146) than participants under 19 years of age.

Longitudinal studies by Orth et al. [39] provide evidence on the trajectory of self-esteem across people’s lives. They note that, although individuals may differ in their particular evolution, the results suggest that self-esteem tends to increase from adolescence to middle adulthood, peaking around age 50–60 and then declining at an accelerated rate into old age. In addition, a significant number of studies have analysed the evolution of self-esteem during each period of people’s development, i.e., during adolescence, during young adulthood, and during old age [40] (p. 382). Overall, the results of these studies have been consistent with the life trajectory described previously in Orth et al.’s [39] studies, i.e., they show increases from adolescence to middle age and then a decline into old age. As we approach adulthood, the level of self-esteem increases because we accept ourselves.

5.3. Self-Esteem and Sex

We found a statistically significant relationship between self-esteem and sex, observing that female students have lower self-esteem than male students. These results may be a consequence of the fact that self-esteem in young women is linked to cultural notions of beauty and femininity. Young women, more than young men, are socially judged based on their physical appearance. If their physical appearance deviates from socially constructed cultural ideals of beauty and they are judged negatively, their self-esteem can be affected. The youth stage is difficult for some young women who perceive themselves as unattractive
and, accordingly, experience lower levels of self-esteem than those who have more positive evaluations of their bodies [68].

Our results are also observed in Torres-Guijarro and Bengoechea’s [69] study of undergraduate engineering students, where women have lower self-esteem and judge themselves too harshly. The judgement male students have of themselves is more in line with the opinion others have of them. These authors claim that the lower self-ratings of female students may be related to gender stereotypes, assuming that some university degrees, such as engineering (STEM degrees), may be stereotyped as being male-dominated.

5.4. Self-Esteem and GPA

Contrary to our expectations, we did not find a statistically significant relationship between self-esteem and academic performance as measured by GPA. Other authors, like us, also did not observe that students’ academic performance had a significant impact correlated with self-esteem [48,49]. In this sense, Pullmann and Allik [48] refer to two possible causes for the lack of a relationship between the two variables: (i) cognitively more advanced and academically successful students may have a more critical self-perspective; and (ii) students with less outstanding academic skills compensate for their academic deficiency by raising their overall self-esteem. The inconsistency of the results may be due to the background of the respondents, the difference in the definition used for academic achievement, and the criteria considered for academic achievement.

It is important to highlight that, regarding achievement, working in pairs and groups was reported to have been more beneficial than working individually [35,67]. However, for teamwork to positively influence achievement, the group must have some sort of experience working together to get the maximum benefit. Previous research has indicated that working in pairs at the beginning can be more advisable than doing it in bigger groups, as working in pairs seems to be simpler than working in groups of four [67]. Optimising these factors can also improve students’ academic achievement and help reduce problems related to self-esteem [70].

6. Significance of the Study and Implications

Teamwork is considered an essential skill for personal, academic, and professional achievement, so studying its configuration and possible implications in depth can help offer university students more comprehensive training and better preparation for their academic success and better integration in the job market. The described enriching interactions reinforce the need to integrate teamwork training and self-esteem fostering at university, to offer students lifelong competencies for their future success.

Due to the reported relationship between self-esteem and teamwork skills and the latter’s connection with academic success, integrating controlled teamwork can have additional benefits. It has been emphasised that paying particular attention to the organisation of groups is of special relevance, as the number of team members can have a significant impact. Cooperative learning has been demonstrated to be more beneficial for self-esteem when pair work is organised for inexperienced students. Once students master the skills needed for effective teamwork, the size of the group can be increased, multiplying the positive effects of teamwork on self-esteem [67].

Age and sex have also been demonstrated to play a significant role in self-esteem, with younger women scoring less than their classmates. For this reason, paying particular attention to the right implementation of teamwork skills and group composition in the first academic years can contribute to creating the proper context for self-esteem increase. In addition to these factors, there have been several suggestions to integrate and improve teamwork skills and self-esteem. Games have been demonstrated to enhance group cohesiveness, cooperation, social ability, communication, emotional management, self-respect, and self-esteem [71], especially when a creative component is added. Other important activities that have been vindicated to promote both teamwork skills and self-esteem are Rope courses for their potential to improve self-esteem teamwork [70].
A specific intervention in leadership skills could be especially necessary, as it was the soft skill that revealed the strongest correlation with self-esteem and the one with the lowest scores in the group analysed, especially in young women.

Finally, teachers should take into account the importance of showing appreciation for a job well done, as it has been considered a powerful way to help students increase self-esteem [64]. In this way, providing adequate training and opportunities to improve students’ teamwork skills will enhance their achievement and self-esteem, contributing to guaranteeing their personal, academic, and professional success, especially in the case of young women.

7. Limitations and Future Research

Our research was carried out for university students in the field of social sciences, so it would be important to extend the sample to other degrees to observe the differences between self-esteem, soft skills for teamwork, and the socio-academic factors studied. Furthermore, in this study, a limited number of socio-academic factors are studied. These and other factors of an economic or cultural nature that have been shown in the previous literature to influence students’ self-esteem could be extended.

Concerning the influence of culture, it would be necessary to carry out studies that include a cross-cultural approach. Most studies of self-esteem have been carried out in the USA and Western industrialised countries, with few studies that include samples from several countries together in their analysis. For this reason, it is unknown whether self-esteem is a cross-cultural phenomenon or a culture-specific phenomenon [18].

Finally, in line with Glebova and Zare [72], it is important to highlight that future research should prioritise analysing the inclusion of self-concept, self-esteem, communication, and stress management in student training. This is particularly important in challenging and uncertain situations, such as the COVID pandemic.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

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