



QUALITY OF LIFE OF STUDENTS IN POLYTECHNIC HIGHER EDUCATION AT THE SANTAREM AND LEIRIA: THE IMPACT OF COVID-19

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BACKGROUND

The epidemic of COVID-19 caused by the Coronavirus-SARS-CoV-2, was declared by the World Health Organization as an International Public Health Emergency (WHO, 2020; Onyema et al, 2020).

The 2019-2020 coronavirus pandemic has affected educational systems worldwide, leading to the closure of educational institutions. This situation kept students socially distant, with little adaptation time, interfering with their quality of life (Onyema et al, 2020).



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MAIN GOAL

To evaluate the impact of the COVID-19 pandemic on the quality of life of higher education students at the Polytechnic Institute of Santarem and the Polytechnic Institute of Leiria.

SPECIFIC AIMS

Verify the existing of differences between students from institutes of the same level of education, located in different cities, regarding QOL;

Identify whether the sociodemographic factors are related to each domain of



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METHODS

- Quantitative, descriptive-correlational study, aiming to describe phenomena and subsequently identify and explore possible relationships between variables (Grove, Burns, & Gray, 2013; Rosa, 2016)
- Depression Anxiety, Stress Scale-21 (DASS-21 of Lovibond & Lovibond, 1995; in the Portuguese version EADS-21, by Pais-Ribeiro, Honrado & Leal, 2004).
- The data were analyzed using the IBM SPSS Statistics for Windows, Version 27.0 software.



Instrument - WHOQOL-bref

Consisting of 26 questions

Two questions initials are student's self-assessment about their QoL and their satisfaction with their health

The other 24 aim to evaluate the four domains: physical (seven questions), psychological (six questions), social relationships (three questions), and middle environment (eight questions).



The population - 6483 students



Sample

775 students (both genders) from the 2nd to the 4th year of daytime education



Held in the period of 19 November till 4 December 2020

IPSantarém Ethics Committee' approval (112020Saúde), October 26, 2020

Authorization requested to the authors of the questionnaire validated for the Portuguese population

Link on the Schools' webpages for free filling by students, anonymously, via Microsoft Forms (with informed consent before the questionnaire starts)



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Table 1. General sample characteristics

Sociodemographic characterization	n	%
Gender		
Female	570	73,5
Male	205	26,5
Age group		
< 23 years	626	80,8
> 23 years	149	19,2
Marital status		
Single / divorced	716	92,4
Married / consensual union	59	7,6
Children		
Without children	726	93,7
With children	49	6,3
Residence District		
Leiria	269	34,7
Santarem	244	31,5
Lisbon	154	19,9
Others	108	13,9
Curricular year		
2nd year	389	50,2
3rd year	292	37,7
4th year	94	12,1



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Regarding the questions

“How would you rate your quality of life?”

“How satisfied are you with your health?”

- There are no significant differences in responses between Institutes, on these questions;
- In the total sample, students self-assess their QoL in a superior way (58,54%) compared to satisfaction with their health (41,09%)
- Satisfaction with their health :



44,27%



39,96%



RESULTS

Tabela 2. Quality of life perceived in the different domains considered in the WHOQOL-bref




Total Sample (IPLeiria + IPSantarem)	Comparison	p	Effect size
Physical (64,87±12,54) 	Psychological (49,60 ±16,18)	0,246	0,51(eta square)
	Social relationships (52,71±19,10)	<0,001	0,25 (eta square)
	Environment (53,92±10,48)	0,704	0,41 (eta square)
Psychological (49,60 ±16,18) 	Social relationships (52,71 ±19,10)	0,228	0,03 (eta square)
	Environment (53,92±10,48)	<0.01	0,08 (eta square)
Social relationships (52,71 ±19,10)	Environment (53,92±10,48)	0,246 	-
Average QoL (55,49±8,73)			



Tabela 3. Comparison between IPLeiria and IPSantarem in the domains of Quality of Life

RESULTS

IPLeiria	IPSantarem	p	effect size
Physical (64,29±13,24)	Physical (65,58±11,61)	0,246	-
Psychological (47,48 ±16,67)	Psychological (52,15 ±15,19)	< 0,001	0,022 (eta square)
Social relationships (53,22±18,54)	Social relationships (52,09 ±19,77)	0,704	-
Environment (53,47±10,21)	Environment (54,45 ±10,79)	0,228	-
Average QoL (54,70±9,00)	Average QoL (56,44 ±8,32)	< 0.01	8,69 (d de Cohen)
Male gender IPLeiria	Male gender IPSantarem	p	effect size
Physical (68,34±12,30)	Physical (67,21±10,94)	0,430	-
Psychological (50,46 ±18,73)	Psychological (56,15 ±15,64)	< 0,05	0,03 (eta square)
Social relationships (54,91 ±20,10)	Social relationships (50,68 ±21,92)	0,173	-
Environment (54,76±11,09)	Environment (55,93 ±11,22)	0,478	-
Average QoL (57,10±9,84)	Average QoL (58,38 ±8,11)	0,315	-
Female gender IPLeiria	Female gender IPSantarem	p	effect size
Physical (63,14±13,29)	Physical (64,84±11,85)	0,155	-
Psychological (46.63 ±15.97)	Psychological (50,41 ±14,68)	< 0,01	0,02 (eta square)
Social relationships (52,74 ±18,06)	Social relationships (52,73 ±18,72)	0,708	-
Environment (53,11±9,93)	Environment (53,78 ±10,54)	0,541	-
Average QoL (54,01±8,64)	Average QoL (55,56 ±8,28)	< 0,05	8,48 (d de Cohen)



Tabela 4. Differences, in each institute, between genders, in the domains of Quality of Life

RESULTS	Male gender IPLeiria	Female gender IPLeiria	p	effect size
	Physical (68,34±12,30)	Physical (63,14±13,29)	0,001	0,02 (eta square)
	Psychological (50,46 ±18,73)	Psychological (46,63 ±15,97)	0,123	-
	Social relationships (54,91 ±20,10)	Social relationships (52,74 ±18,06)	0,139	-
	Environment (54,76±11,09)	Environment (53,11±9,93)	0,131	-
	Average QoL (57,10±9,84)	Average QoL (54,01±8,64)	< 0,01	8,23 (d de Cohen)
	Male gender IPSantarem	Female gender IPSantarem	p	effect size
	Physical (67,21±10,94)	Physical (64,84±11,85)	0,133	-
	Psychological (56,15 ±15,64)	Psychological (50,41 ±14,68)	< 0,01	0,03 (eta square)
	Social relationships (50,68 ±21,92)	Social relationships (52,73 ±18,72)	0,582	-
Environment (55,93 ±11,22)	Environment (53,78 ±10,54)	< 0,05	0,01 (eta square)	
Average QoL (58,38 ±8,11)	Average QoL (55,56 ±8,28)	< 0,01	8,23 (d de Cohen)	



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Psychological Domain

This finding is in line with other studies with students in higher education on QoL, which reveal a decrease in values in this domain compared to other domains (Artigas et al., 2017; Catunda & Ruiz, 2008; Petrini, et al., 2013).

This may reflect the dissatisfaction with conditions in personal and / or academic life, with possible implications for the motivation for the development of the course (Artigas et al., 2017; Catunda & Ruiz, 2008), which is manifested in our study by the reference of students from both Institutes **to the decrease in the ability to concentrate during the confinement period due to the pandemic COVID 19.**



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Domain of Social Relations

It presents **low values in both Institutes**, with a predominance of students from IPSantarém, with a lower self-assessment of QOL in this domain compared to the other domains.

These results **differ from those of other investigations**, which also assessed the QOL of higher education students, where this domain was the one with the highest average value (Amadeu & Justi, 2017; Manzatto & Rocha, 2011).

This result makes us assume that **personal, family and friendship relationships, both in an academic and family context, were affected**. The socialization developed in a healthy academic context, in the intensification of the development of friendships and social life, was **reduced during the period of confinement**.



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Physical and Environmental Domains

Amongst the domains, these were the highest on students from both Polytechnic Institutes.

The results obtained regarding the physical domain are in line with the results of other studies (Amadeu & Justi, 2017; Carleto et al, 2019; Santos & Bittencourt, 2017), which may be related to the good health perception of students, who are mostly young (under the age of 23) and able to carry out daily activities with little or no difficulty, pain or discomfort.



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Physical and Environmental Domains (Cont.)

The results referring to the Environment domain **stand out from other studies**, where self-assessment presents values that are normally lower than the other domains, related to difficulties in adapting to the academic environment, as well as the separation of family members (Carleto et al, 2019; Catunda & Ruiz, 2008; Manzatto & Rocha, 2011), which **in the context of our study was differentiated by the imposition of confinement by the pandemic COVID 19.**



CONCLUSION

In the sense of promoting QOL among higher education students, the results point to the need for intervention, especially in the psychological domain.

Future interventions are proposed with a focus on psychosocial factors, with possible differences in approach considering the gender of the students. Thus, the relevance of the development of an online program to promote students' QoL is suggested, enabling the integration of health promotion in the institutional and academic culture.



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IMPACT OF COVID-19 LOCKDOWN IN PSYCHOLOGICAL WELL-BEING AMONG STUDENTS IN POLYTECHNIC OF SANTAREM AND LEIRIA

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BACKGROUND

The social restraints during the COVID-19 mandatory lockdown led young and undergraduate adults living remarkable changes in their daily lives, challenging the feeling of loneliness and the own perception of social isolation (Cao et al., 2020)



MAIN GOAL

To evaluate the impact of the COVID-19 pandemic on the quality of life of higher education students at the Polytechnic Institute of Santarem and the Polytechnic Institute of Leiria.

SPECIFIC AIMS

Describe students' self-perception of the Psychological Well-Being dimensions through the Psychological Well-Being Manifestation Measurement Scale (PWBMS or EMMBEP; Monteiro, Tavares and Pereira, 2012).

To check whether there are statistically significant differences in PWBMS levels between students depending on gender and the institute they attend



Instrument - Psychological Well-Being Manifestation Scale (PWBMS)

Consisting of a self-response scale (1 to 5) on 25 items
(Monteiro, Tavares & Pereira, 2012)



Instrument - PWBMS

It is divided into six subscales that aim to assess: self-esteem, mental balance, social involvement, sociability, control of self and events; happiness; and an overall well-being index (Monteiro, Tavares & Pereira, 2012)

The six dimensions are seen as components of the well-being and not as contributing to well-being (Monteiro, Tavares & Pereira, 2012)



Instrument - EMMBEP

The total result in which the subject self-evaluates - can vary between the values 25 and 125 (Monteiro, Tavares & Pereira, 2012)

The higher the total obtained - given by the sum of the scores of all items - the greater the perceived psychological well-being (Monteiro, Tavares & Pereira, 2012)



PSYCHOLOGICAL WELL-BEING SCALE

Table 2– Summary of intercorrelations, means, and standard deviations for PWBMS (n=775).

MEASURE	1	2	3	4	5	M	SD
1. PWBMS Happiness	--					2.98	.90
2. PWBMS Sociability	.77**	--				3.39	.91
3. PWBMS Control of Self and Events	.80**	.73**	--			3.09	.90
4. PWBMS Social Involvement	.71**	.60**	.68**	--		2.89	.91
5. PWBMS Self-Esteem	.80**	.68**	.73**	.70**	--	3.12	.83
6. PWBMS Mental Balance	.77**	.69**	.72**	.61**	.69**	3.27	.92

Note: PWBMS, Psychological Well-Being Manifestation Scale (Monteiro, Tavares & Pereira, 2012).

** $p < .001$.

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RESULTS

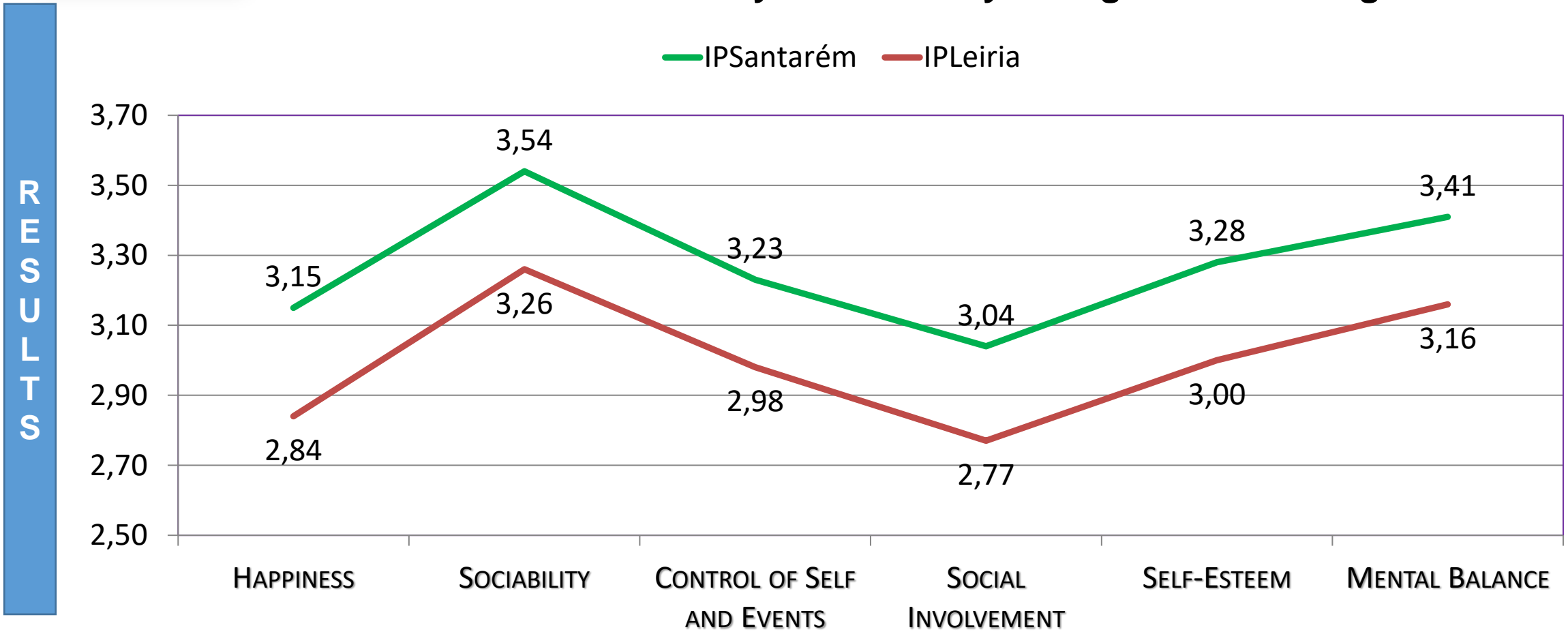
Table 3 – Distribution of students according to total well-being (25-125), by institute and gender

INSTITUTES	GENDER	No	TOTAL WELL-BEING		M	SD
			MIN	MAX		
IPSANTAREM	MALE	110	50	125	86,94	18,73
	FEMALE	241	29	124	79,10	17,79
IPLEIRIA	MALE	95	27	125	77,19	21,75
	FEMALE	329	25	125	73,74	19,80

Source: Massé et al, (1998) ; Monteiro, Tavares e Pereira (2012)



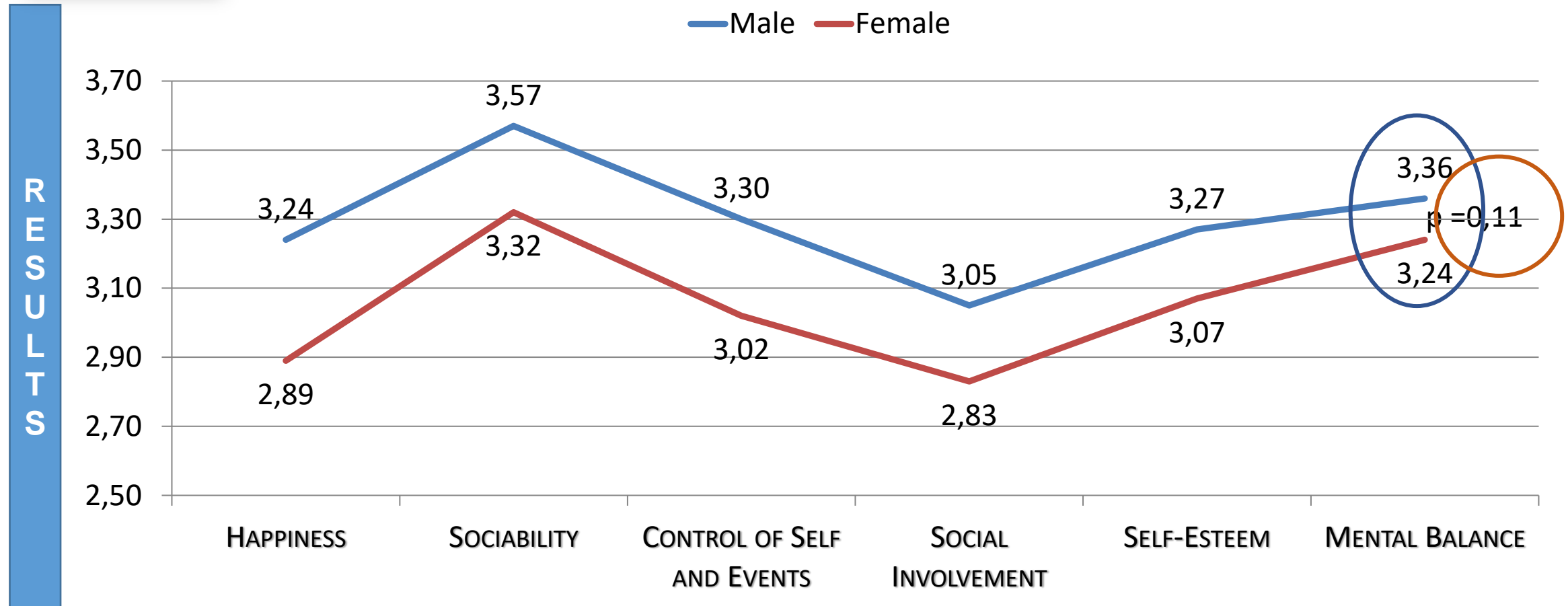
GRAPH 1. Institute attended by levels of Psychological Well-Being



RESULTS



Graph 2. Gender Differences in Levels of Psychological Well-Being





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- It was found that IPSantarém students have better levels of psychological well-being than IPLeiria students (Silva, et al, 2019) .
- Boys also have better levels of psychological well-being in relation to girls
- According to Monteiro, Tavares and Pereira (2012), the Happiness subscale is the one that stands out as the subscale that best explains Psychological Well-Being, followed by Sociability, Control of Self and Events and Self-esteem, being the Social Involvement and Mental Balance subscales those that least explain the Psychological Well-Being.



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- The fact that the sample is of convenience is the biggest limitation of this study, and therefore it is not possible to extrapolate the results.
- The obtained results provide the basis to design and develop a targeted intervention main program focused on the empowerment of higher education students.
- Building a literacy program with health education strategies, starting from their own perceptions and responses to the experienced situations, allows their easy engagement in the promotion of the psychological well-being.



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