



# Supporting employee mental health during the COVID-19 pandemic: interventions to enhance Psychological Capital in Spain

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The objective of this study was to evaluate the central construct of PsyCap and each of its four dimensions which are, resilience, hope, self-efficacy and optimism and to implement interventions at the workplace that specifically target an improvement in PsyCap both on the individual and on the team level.

## Introduction

Implementation to positive psychological interventions to develop the PsyCap of employees may be considered as a complementary strategy in mental health promotion and helps to achieve the goal of occupational health. Addressing the need for continuous learning, we extend the construct of psychological capital to the context of leader development.

The framework relies on the work of Luthans et al. (1), who identified four psychological constructs (hope, optimism, resilience, and self-efficacy) that also bundle into the higher-order construct Psychological Capital (PsyCap), which meet the criteria of being positive, based on theory and research, and state-like open to development, change and management for performance improvement. PsyCap is a positive personal trait with high malleability and developmental capacity, his training allows enhancing employees' strengths and psychological resources.

The objective of this study was to evaluate the central construct of PsyCap and each of its four dimensions and to develop a training procedure for its improvement in employees after the impact of Covid-pandemic in June 2020.

## Results

Mean scores of PsyCap-construct according to characteristics of participants are shown this table.

The PsyCap-construct and three dimensions - self-efficacy, resilience and optimism - were significantly associated with:

- (1) **Sex**, higher level in men.
- (2) **Educational situation**, lower level among people with university degree or higher.
- (3) **Position**, higher level among Directors and Managers.
- (4) **Date/Pandemic phase**, with a reduction in the level of PsyCap over time and a higher level at the beginning of the study, in the last quarter of 2020.
- (5) **Economic activities**: with the highest levels in the manufacturing industry.

However, **hope** was not significantly associated with the variables analysed (p>0.05).

Regarding the **age group** and **length**, the differences found are not significant, although they point to higher levels of PsyCap among staff with less seniority (<1 year) and among those over 60 years old.

**Gender** was significantly related to occupation (p= 0.004) which corresponds to the gender-based employment segregation.

Mean scores of PsyCap-construct according to demographic and labor characteristics of participants (n=1271)

Variables	n (%)	mean ± SD	t/F-value	p-value
Gender	Male	690 54%	3.4214 .44069	.317 .011*
	Female	581 46%	3.3579 .44008	
Age (years)	< 30 years	117 9%	3.3519 .45652	.993 .410
	30-39	408 32%	3.3778 .45078	
	40-49	529 42%	3.4169 .43134	
	50-59	203 16%	3.3750 .43646	
	≥ 60 years	14 1%	3.4829 .48350	
Educational situation	Primary Education and below	41 3%	3.5115 .40987	4.423 .004**
	General Certificate of Secondary	339 27%	3.4038 .43114	
	Vocational Education and Training	111 9%	3.5034 .40326	
	University Degree and above/higher	780 61%	3.3654 .44952	
Economic Activities	Manufacturing industry	451 35%	3.4726 .41456	6.476 .000**
	Wholesale and retail trade	73 6%	3.3555 .46355	
	Transport and Storage	80 6%	3.4268 .43761	
	Information and Communications	67 5%	3.1739 .47100	
	Financial and Insurance activities	68 5%	3.3232 .41363	
	Professionals, Scientists and Technicians	80 6%	3.2096 .47619	
	Administrative and Auxiliary services	101 8%	3.3716 .41054	
	Sanitary and Social Services	313 25%	3.4039 .44253	
	Other services	38 3%	3.2929 .45754	
Position	Central Services and Administration	273 21%	3.3541 .41699	7.751 .000**
	Production and Operations Area	807 63%	3.3786 .44731	
Length	Manager Area	191 15%	3.5053 .43441	
	Less than a year	32 3%	3.4641 .33951	.390 .760
	For 1 to 5 years	263 21%	3.3959 .44046	
	For 6 to 10 years	201 16%	3.3750 .46100	
	More than 10 years	775 61%	3.3927 .44063	
Date / Pandemic phase	2020 September to December	237 19%	3.6474 .54956	4.360 .005**
	2021 January to March	453 36%	3.5847 .53953	
	2021 April to June	337 27%	3.5721 .55263	
	2021 July to December	244 19%	3.5509 .57222	

Notes: \*p<0.05; \*\*p<0.01  
Abbreviations: PsyCap, Psychological Capital Construct (General PsyCap).

Influence of personal characteristics on the level of PsyCap by gender

		Male		Female	
		F	Sig	F	Sig
Age (years)	Optimism	1.439	.780	1.477	.208
	Resilience	1.297	.270	.885	.473
	Hope	1.604	.172	.747	.560
	(Self-Efficacy)	.626	.644	.219	.928
	PsyCap	.327	.860	.920	.452
Economic Activities	Optimism	5.794	.000**	2.047	.039**
	Resilience	6.582	.000**	3.289	.001**
	Hope	4.407	.000**	1.786	.077
	(Self-Efficacy)	4.441	.000**	2.429	.014*
	PsyCap	7.211	.000**	2.534	.010*
Educational situation	Optimism	3.707	.012*	.602	.614
	Resilience	2.312	.075	.307	.820
	Hope	3.819	.010*	1.159	.325
	(Self-Efficacy)	4.106	.007**	.489	.690
	PsyCap	4.775	.003**	.162	.922
Position	Optimism	.835	.434	5.801	.003**
	Resilience	2.302	.101	10.135	.000**
	Hope	.335	.715	3.503	.031*
	(Self-Efficacy)	1.660	.191	4.643	.010*
	PsyCap	1.369	.255	7.805	.000**
Length	Optimism	.865	.459	1.063	.364
	Resilience	1.052	.369	.681	.564
	Hope	.139	.937	1.217	.303
	(Self-Efficacy)	.247	.864	.351	.788
	PsyCap	.482	.695	.808	.490
Date / Pandemic phase	Optimism	1.818	.142	.994	.395
	Resilience	3.147	.025*	4.971	.002**
	Hope	.353	.787	1.588	.191
	(Self-Efficacy)	2.063	.104	1.621	.183
	PsyCap	2.125	.096	2.725	.044*

Notes: \*p<0.05; \*\*p<0.01  
Abbreviations: PsyCap, Psychological Capital Construct (General PsyCap).

The results of the PsyCap level according to the characteristics analysed separately for men and women are shown in the table.

The differences found in the level of Psychological Capital and dimensions only varied significantly depending on:

The differences found in the level of **Psychological Capital and dimensions** only varied significantly depending on:

- **Educational level** for men.

- **Position** for women.

- Although, the effect of the **Pandemic phase** or the of completion of the program was on a lower level of **resilience** in 2021 in both men and women and on the level of **PsyCap-construct** in the case of women.

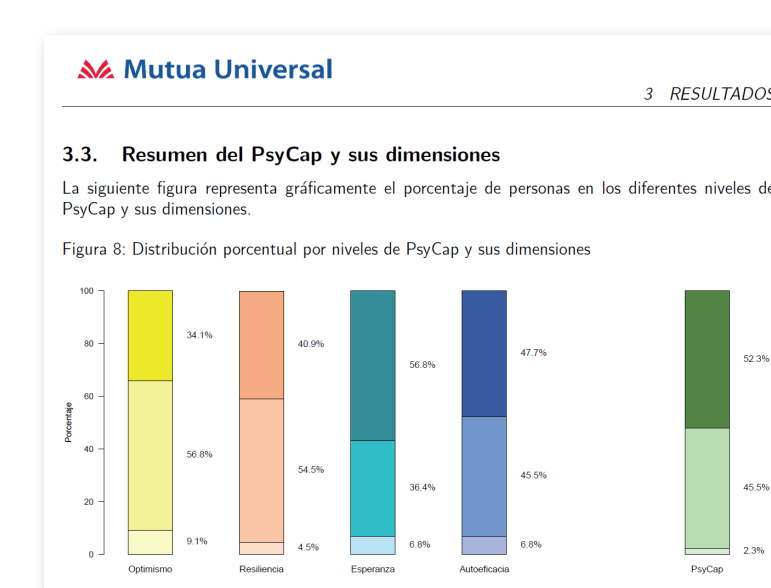
For the rest of the analyzed variables, no relevant differences were observed between both groups.

## Materials and methods

- **Population:** causal or incidental sampling of employees of companies associated with a collaborative mutual society with the Social Security Institute in Spain, who were invited to participate in an online session to explain this program from June 2020 to December 2021.
- A cross-sectional **study** was conducted in Spain with total 1.271 persons were included in the analysis (581 women, 690 men).
- **Statistical analyses:** The demographic variables were described with mean, standard deviation, number and percentage as appropriate. Differences in continuous variables were examined by independent-sample t-test or one-way ANOVA. Pearson's correlation analysis was used appropriately to examine relations among PsyCap and its dimensions and the rest of the variables. Data treatment and statistical analyses were performed using the statistical package SPSS 17.0.

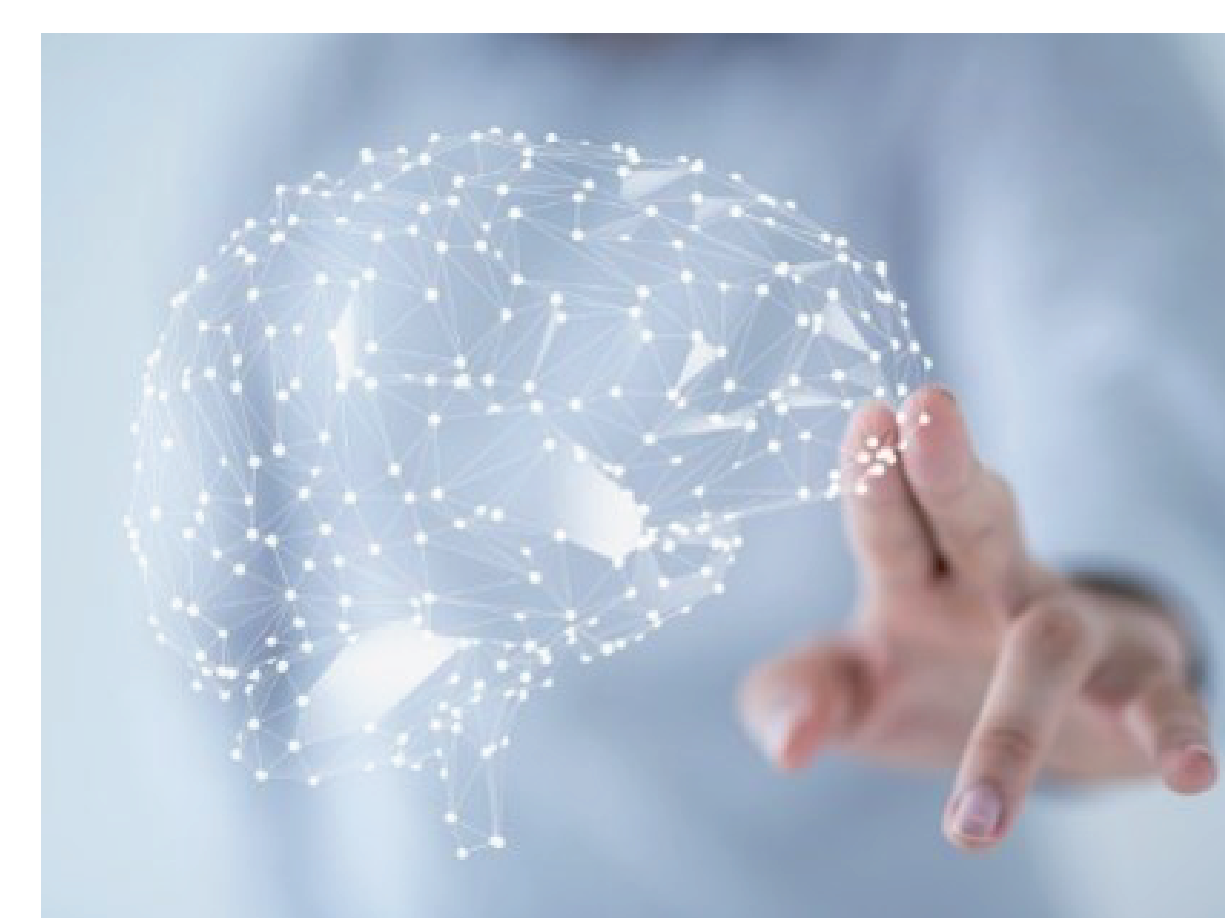
**Instrument:** PsyCap was measured with the OREA (2), which consists of 12 items scored on a Likert scale of 1 (very disagree) to 4 (strongly agree) validated for use in Spain. Items on demographic and employment characteristics are also included.

For its application a scale was established to allow us to classify the level of Pyscap into three levels (low, medium and high) based on the average scores obtained. Higher values indicated a higher level of PsyCap and all four components.



The interventions were carried out from September 2020 to December 2021.

## Conclusion



The results show different levels of PsyCap and its components (except hope) among workers based on their personal characteristics by sex, educational level, activity and type of position held. As well as the effect of the COVID-19 pandemic.

Previous studies suggest that the four components of PsyCap (self-efficacy, hope, resilience and optimism) can be modified using effective measures, so a psychological capital intervention program based on the PCI model was developed (3,4).

The program makes available to companies and workers a tool to evaluate and train PsyCap and provides informational material to promote their knowledge, helping to reduce the stigma to address mental health in the workplace.

However, there is a low level of participation of all workers in companies, so future activities should be aimed at improving the level of participation of companies and workers, after warning about the importance of promoting health and psychological well-being at work and increase the participation of workers in training and improve PsyCap levels.

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