

# Gender Equity Considerations in Public Funding for COVID19 Research: a cross-sectional study in two european countries

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## What was the distribution of awarded grants focusing on COVID-19 research for competitive calls in Spain and UK? Which factors were associated to the amount of funding received?

### Background:

There are concerns regarding the impact of the COVID-19 pandemic on gender equity issues. The distribution of care-work during the pandemic could have increased the previously existing inequities in academia.

### Methods:

Cross-sectional study. We examined 521 grants awarded until February 2021 from Carlos III Health Institute (CHI) and the United Kingdom Research and Investigation (UKRI). We collected data, by pairs, on the principal investigator (PI): **gender, H-index (HI), M- index (MI), academic rank, first publication year; and on the research proposal: topic and amount of the grant.** We performed a descriptive analysis and multivariate linear regression.

### Results:

#### What was the distribution of awarded grants focusing on COVID-19 research for competitive calls in Spain and UK?

- Women were PI in 27.8% of CHI awards and in 59.1% of UKRI projects (P = 0.01)
- For both countries the majority of PIs were professors or senior researchers (P<0.01)
- Average funding was higher in UKRI (360037) than in CHI (187745.9) P=0.01; also both prestige indices: UKRI (HI:25.7 ; MI:1.2) CHI (HI 25.37, MI 1.09) but non statistically significant.

#### Which are the gender differences?

		SPAIN		P	UK		P
		Women	Men		Women	Men	
ACADEMIC RANK (%)	Pre/postdoc.	11 (35.5)	17 (20.5)	0.03	8 (5.2)	17 (7.6)	0.62
	Readers	4 (12.9)	3 (3.6)		36 (23.2)	48 (21.3)	
	Professorship/senior researcher	16 (51.6)	63 (75.9)		111 (71.6)	160 (71.1)	
TERMINAL DEGREE (%)	Medical doctor	1 (3.2)	5 (6)	0.51	3 (1.9)	7 (2.9)	0.04
	PhD	18 (58.1)	37 (44.6)		136 (85)	172 (73.2)	
	Medical doc.-PhD	12 (38.7)	39 (47)		18 (11.25)	50 (21.3)	
	Other	0	2 (2.4)		3 (1.9)	6 (2.55)	
TYPE OF RESEARCH (%)	Biomedicine	12 (38.7)	38 (46.3)	0.31	15 (9)	51 (21.4)	0.02
	Clinical	16 (51.6)	30 (36.6)		12 (7.2)	21 (8.8)	
	Public health/Social	3 (9.7)	14 (17.1)		140 (83.8)	166 (69.7)	
PROGRESS CRITERIA (%)	Yes	5 (16.1)	7 (8.4)	0.23	76 (45.5)	59 (24.5)	
	No	26 (83.9)	76 (91.6)		91 (54.5)	182 (75.5)	
H-INDEX (ES)		16.21(2.08)	28.67(2.69)	0.01	20.28 (1.53)	29.21(1.64)	<0.01
M-INDEX (ES)		0.84(0.11)	1.67(0.09)	0.05	1.03 (0.06)	1.34(0.05)	<0.01
FUNDING (ES) in euros €		116325.4 (22180.2)	215899.9 (36640.5)	0.20	346038.6 (59553.1)	370095.2 (45259.9)	0.74

#### Which factors were associated to the amount of funding received?

The multivariate linear regression, accounting for the amount of the funding as the outcome, showed a significant association with prestige indices in the UKRI (HI: 13419.9, P<0.01; MI 344.14.7, P<0.01), and in the CHI (HI:3708.9, p>0.01; MI: 115950.2, p<0.01) but not for gender nor academic rank in any country.

### Conclusion:

The UKRI shows a greater gender equity in terms of awards granted, academic rank, and funding for COVID-19 research competitive calls. Moreover, the difference between gender for both academic indices (HI, MI) is proportionate, what suggests a lower risk of bias in the academic career. Moreover, for both countries, men had higher MI, HI and funding than women. This is important given that HI and MI were the only factors which increases the probability of gaining higher funding. Gender perspective in scientific promotion policies and funding agencies may contribute to closing the gap of opportunities between researchers investigating on COVID-19.

