

Article

Organizational Well-Being of Italian Doctoral Students: Is Academia Sustainable When It Comes to Gender Equality?

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Abstract: Despite the fact that there are several researchers reporting the risks of doctoral students in terms of mental health, there is still a lack of studies exploring their well-being at an organizational level, looking at the difference between male and female PhD students. This work aims at describing gender differences in the organizational well-being of doctoral students in an Italian context. A sample of 121 Italian PhD students filled an adaption of the ANAC questionnaire (National Authority for Anti-Corruption) for an organizational well-being assessment between June and July 2021. The results show that there are a number of well-being indicators for which female PhD students have statistically lower scores than men regarding: (1) the perception of health and safety at work; (2) career development; and (3) job autonomy. Practical suggestions to improve the academic system in terms of sustainability for preventing PhD students' organizational malaise with a particular focus on gender equality are provided.

Keywords: organizational well-being; gender equality; gender gap; Italy



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1. Introduction

In the last decade, sustainability has become one of the main social challenges debated at an institutional level [1,2]. The mediatic attention shed on the topic has resulted in new regulations and bureaucracies pushing companies and civic society towards a “mandatory” sustainable transition [3,4]. In contemporary public debate, sustainability is generally treated in terms of sustainable development [5] that may be defined as the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” [6] (p. 42).

Following this trend, many universities introduced sustainable development among their research priorities as well as within their organizational practices. That is, in a European context, the diversion of research priorities to the themes of sustainability and being green were also direct consequences of the REACT-EU program within the Next Generation. For instance, Italy, through the Ministerial Decree no. 1061 of 10 August 2021, allocated 50 million euros to PhDs on innovation issues and 180 million euros to PhDs on green issues through ESF REACT-EU resources.

In terms of organizational practices, many Atheneums reduced the usage of plastic in their campus and introduced waste sorting in university buildings.

Less space, however, has been given to the development of sustainability in terms of inclusion, equality and fairness for academic human capital. When thinking about sustainability within organizations, indeed, there is a direct anchoring to the hard and objective components of the ecological revolution such as technological innovation, the conversion of production processes, the design of new eco-friendly products [7] as well as energy saving,

recycling, a circular economy, pollution control and the saving of resources [8]. It is still lacking a debate around the “soft” dimension of sustainability. As also argued by the UN, sustainable development refers to a wide range of elements that overcome the “hard side” of environmental challenges (e.g., the development of inclusive and equal societies). At an organizational level, this translates into the promotion of inclusive and equal organizations.

The current research was developed by the assumption that being sustainable at an organizational level implies creating adequate working conditions to develop organizational well-being. Organizational well-being, indeed, can be seen as a direct consequence of living in an inclusive and equal organizational environment.

This concept becomes even more important if we focus our attention on a country such as Italy which, compared to the averages of other European countries, loses about 30,000 researchers per year and imports only 3000 [9]. One of the primary objectives of the Italian government is to keep researchers in house so as not to lose the money invested in the training of high-skilled profiles useful to the country. In other European countries, not only are investments in research higher than in Italy, but also are the number of people employed: the unemployment rate of university-educated individuals in Italy is 5.3%, a figure above the EU and USA average of 4.2 and 3%, respectively [10]. This makes other countries more attractive to Italian researchers. Behind this phenomenon, however, there are also factors related to the perception of the justice of the academic environment by PhD students [11]. However, specific studies investigating the perception of well-being among doctoral students in an Italian context are completely lacking. For this reason, this work focuses on the sustainability of the Italian academic system in promoting the organizational well-being of their PhD students. More in detail, this research explores gender differences in how Italian PhD students perceive their organizational context with respect to diverse well-being dimensions. This work opens a debate on the sustainability of universities as labor places that support/inhibit the organizational health of their young researchers, with particular attention to gender gaps.

2. Theoretical Background and Research Hypothesis

The current research is based on two related issues that currently challenge the development of research and practice with respect to universities’ sustainability around PhD students’ organizational well-being and related gender equality.

First, although there is extensive literature reporting the conditions of doctoral students’ fragility in terms of mental health [12–18], research efforts focusing on their organizational well-being remain scarce. Many investigations, indeed, argued the risk that doctoral students may develop forms of psychological distress and discomfort due to their working conditions. According to Levecque et al., (2017) the doctoral student population is at an increased risk of developing mental health problems when compared to the highly educated and employed general population [12]. Several studies have also reported the high psychosocial distress related to the doctoral experience [13–15]. In this regard, Velardo and Elliott (2021) argued that doctoral students are exposed to conditions of work overload, worry and existential uncertainty that are uncommon in other contexts and that may lead to a precarious state of well-being [19]. Woolston (2019) also reported that what concerns doctoral students the most are the uncertain career prospects and the difficulties in maintaining a good work–life balance [20].

Within this wide umbrella of studies, a focus on organizational well-being is still lacking. This may be explained by the hybrid professional position covered by doctoral students within the academic system. Doctoral students are asked to accomplish diverse tasks such as article publishing, teaching and congress participation, as if they are fully part of the research staff, even though they are officially enrolled within the university as “students”. Coherent with this particularity, it is important to address the issue of PhD students’ well-being from a systemic perspective by exploring the organizational roots of their malaise. As Levecque and colleagues (2017) also highlighted, organizational and work contexts are significant predictors of doctoral students’ mental health [11].

The concept of organizational well-being is strongly intertwined with the theme of organizational health [21]. According to Avallone (2012, p. 677), organizational health is defined as “the set of cultural cores, processes, and organizational practices that animate the dynamics of coexistence in work contexts by promoting, maintaining, and improving the quality of life and the degree of physical, psychological, and social well-being of work communities”. Organizational well-being can be also seen as the relationship that individuals develop with their organizations and their willingness to invest both emotional and material energies into their work and into their relationships with others at work [21].

More in detail, the existing literature underlines that there are several predictors of organizational well-being, such as: (1) the presence of a safe and healthy workplace [22–25], (2) a lack of discrimination [26], (3) the perception of organizational fairness and justice [27], (4) the perception of professional development prospects, (5) serenity and clarity related to the performance of job tasks, autonomy [28] and discretion at work, (6) the presence of positive relationships with colleagues and a positive organizational climate [29] and (7) commitment and identification with the organization [30,31] as well as clarity related to the allocation of roles, training and good communication within the organization. In addition, the literature shows that one’s relationship with the hierarchical superior is crucial in terms of employee well-being development [32]. Alongside these factors, another indicator of organizational well-being is the degree to which the organizational evaluation system is shared, which refers to the knowledge and sharing of organizational goals, the application of equal evaluation criteria and the effective functioning of the evaluation systems [33].

While a large body of studies have investigated the effect of holding a PhD on mental health [12–18], few studies have investigated the perception of the safety of the workplace comparing female and male PhD students. According to Escardíbul, & Afcha (2017), it seems that there are not significant differences between male and female PhD students in health or mental status, but some differences have been found in the definition of a healthy workplace: female PhD students stressed, more than male PhD students, the importance of understanding, communication, relationships and ethics in determining a healthy environment [34]. Regarding the perception of fairness and discrimination, a number of studies have also highlighted that women are subjected to organizational and work conditions advantaging their male counterparts. It is fully recognized, for instance, that women are more exposed to discrimination or verbal and physical harassment compared to men [35,36]. Gender also seems to be particularly salient in determining interactional justice and fairness violations at work [37].

Within the job setting, however, several scholars have argued that women as low status group members may support the system that perpetuates discrimination against their group [38,39], particularly when they perceive the procedures which rule the environment where they work as fair. That is, Brady et al., (2015) found that female workers supported a workplace which discriminated against them in favor of their male colleagues when the workplace was structured in a way that created the illusion that the procedures were fair even though they were not [40]. Another body of studies imputed the fact that women tend to justify discriminatory workplace by appealing to the “chivalry bias” (e.g., [41,42]), which implies that men are supposed to protect women in a male-dominated society because they are seen as weaker and more vulnerable than men [43]. This bias found a lot of consensuses both among men and women and the latter preferred to be treated differently, even if worse than men, in the name of the protection they need as a weaker group [44,45].

These studies lead to the following assumptions:

Hypothesis 1 (H1). *No statistically significant differences occur between male and female PhD students in the perception of a healthy and safe workplace.*

Hypothesis 2 (H2). *The perception of discrimination is lower for female than for male PhD students.*

Hypothesis 3 (H3). *The perception of equity (fairness) is higher for female than for male PhD students.*

Although many scientific studies have investigated the role of gender in academic careers, there are still few studies investigating the role of gender in the careers of all PhD graduates, including those outside of academia. One study by Waaijer et al., (2016) involving 2193 PhD graduates in the Netherlands, found that female students rated their chances of obtaining a permanent position after their doctorate as lower than their male counterparts; likewise, female students rated their long-term career prospects in academia as worse than those of men [46]. These trends were accentuated by the nationality factor: PhD students from high-income countries were more pessimistic about both their long-term career prospects and the availability of permanent positions in academia and non-academic research. Moreover, women tend to be less satisfied than men not only with regard to their job but also to the organizational system and criteria used to define clear and fair roles and procedures [47–50], and this results in another theoretical assumption basing our study:

Hypothesis 4 (H4). *The perception of career and professional development is lower for female than for male PhD students.*

Fundamental predictors of organizational well-being are organizational support, the extent that workers feel that the organization's values contribute to their well-being [51–53], identification with the organization [49,50], the meaning the workers attribute to being part of the organization [51] as well as sense of belongingness and their colleagues' supportive behaviors [54–56]. This last factor seems especially important in students' performances and well-being, as socialization requires opportunities for both formal and informal interactions between faculty and students [57–59].

Investigations on researchers' identification with the context of their work and their sense of belongingness provide interesting results: despite the sense of instability and precariousness characterizing the job profile of this profession, researchers report being committed and satisfied with their job [12]. As far as we know, there are no specific studies on PhD students exploring gender differences on these variables.

The aforementioned results suggest one further theoretical hypothesis around the well-being of female PhD students:

Hypothesis 5 (H5). *No statistically significant differences occur between male and female PhD students in the level of identification with the context of their work and their sense of belongingness.*

Finally, regarding the role of the supervisor in determining the well-being of doctoral students, it has been argued that supervisors who exhibit autonomy-supportive behaviors facilitate the development of subordinates' well-being and performance (e.g., [60,61]). In the same way, supervisors who use unfair procedures in assigning outcomes appear to have a negative impact on perceived fairness and job satisfaction [62–64]. However, there is a scarcity of studies on supervisor perceptions of support and the gender of doctoral students. According to one study consistent with the contextual understanding of the "queen bee" and "crabs in the barrel" effects [65], women and racial minorities working in settings where their gender/race may be of particularly low status—such as in an academic context—perceive less support from supervisors and a higher degree of job autonomy if they are of the same gender or race than their male colleagues [66]. Other organizational investigations have supported different conclusions regarding the job autonomy of women at work [67,68]. For instance, it is argued that there is a bias regarding the evaluations of women at work and the perceptions of their organizational achievements. According to Pew, Zamudio and Meng (2021), organizational evaluators, whether men or women, seem to approach job decisions and processes undervaluing the successes of women, even if unintendedly so [69]. Since women are generally penalized in organizational evaluations, this could possibly influence the degree of organizational task sharing on the behalf of their supervisors and, consequently, affect the degree of female autonomy at work.

Furthermore, Correll (2004) reported that female and male PhD students in academia assess their own competencies differently, with male PhD students showing greater confidence than their female colleagues [70]. Additionally, González Ramos, Fernández Palacín, and Muñoz Márquez (2015) found that women judge their research work more critically. This outcome is associated with low self-confidence in female students, and this could also possibly lead to them showing less autonomy when delivering organizational tasks [71].

The aforementioned outcomes guide two final theoretical assumption:

Hypothesis 6 (H6). *Female PhD students report lower levels of university goal sharing than male PhD students.*

Hypothesis 7 (H7). *Female PhD students report lower levels of job autonomy than male PhD students.*

3. Material and Methods

3.1. Participants and Procedure

121 PhD students ($F = 70$, $M = 51$) currently involved in a doctoral cycle in Italian universities were invited, between June and September 2021, to participate voluntarily and freely in an online questionnaire conducted by Società Italiana del Dottorato di Ricerca (SIDRI)—the Italian Society of PhDs. The study was conducted in accordance with the Helsinki Declaration and Italy's data protection regulation and obtained formal approval by the SIDRI. Participants gave their online consent to participate in the research.

The average age of the participants was 30.5 years ($SD = 4.38$; range: 25–52 years). In total, 86% of participants were supported by a fellowship. Moreover, 69.2% of participants reported working primarily from home during the survey period, while 30.8% reported working at the university or alternating between working from home and at the university. The PhD students mostly came from universities in southern Italy (58%), followed by students coming from universities in northern Italy (31%) and from universities in central Italy (12%). Finally, most participants completed the survey in the third week of June (36%) and in the first week of July (37%), with some others completing it in the second (7%) and the fourth week (8%) of June. All the others (11%) were equally distributed along the other weeks. The sample size was further confirmed through conducting a power analysis for the one-way ANCOVA needed to test from H1 to H7. G*Power 3.1 [72] was used to conduct a power analysis with a power of 95%, an effect size of $f = 0.40$, a numerator df of 1, 2 groups and 2 covariates. The total sample size required according to this analysis was 84 participants.

3.2. Measures

Organizational well-being: the participants' organizational well-being was assessed with the Italian National Anti-Corruption Authority (Autorità Nazionale Anti-corruzione—ANAC) questionnaire [73].

The questionnaire provides a comprehensive assessment of the key indicators of organizational well-being provided by the literature:

(1) the presence of a safe and healthy workplace [22–25], (2) a lack of discrimination [26], (3) the perception of organizational fairness [27], (4) the perception of professional career development, (5) a sense of belonging with the organization [30,31], (6) goal sharing and (7) job autonomy [28].

The original version of this tool did not provide a measurement for reliability, so for this reason, we further relied on a study by Cortese et al., (2019) who conducted confirmatory factor analysis for each scale the questionnaire is composed [74].

All items were scored on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree), with higher scores indicating a higher organizational well-being. The items were furtherly readapted to fit the academic setting (see Table 1 for all the items distinguished for the aforementioned dimensions). All α values met the criterion of 0.70, ranging between 0.75 and 0.92, except for the two dimensions of health and safety at work that recoded

an alpha of 0.64 and 0.61, respectively, but we decided to keep them according to Taber (2018), who categorized an alpha having a threshold between 0.61 and 0.65 as a satisfactory level [75].

Table 1. Alpha and questionnaire items.

ANAC Constructs	Alpha	Number of the Items	Sample Items
Health and security	0.643	5	My university is a safe place to work. I have received appropriate information and training on the risks associated with my work activity and on the relevant prevention and protection measures during the COVID emergency (modified). The characteristics of my university (spaces, workstations, brightness, noise, etc.) are satisfactory with respect to my research needs. I have been subjected to mobbing (formal or de facto demotion, exclusion of decision-making autonomy, isolation, exclusion from the flow of information, unjustified unequal treatment, exasperated forms of control, . . .). I am subjected to harassment in the form of words or behavior, likely to undermine my dignity and create a negative climate in the workplace.
Discrimination	0.684	8	I am treated fairly and with respect in relation to my role as a doctoral student (modified). I am treated fairly and with respect in relation to my political orientation. I am treated fairly and with respect in relation to my religion. I am treated fairly and with respect in relation to my ethnicity and/or gender. I am treated fairly and with respect in relation to my language. My age constitutes an obstacle to my development at work. I am treated fairly and with respect in relation to my sexual orientation. I am treated fairly and with respect in relation to my disability
Fairness	0.866	5	I believe there is fairness in the allocation of the workload. I believe there is fairness in the distribution of responsibilities. I think there is a balanced relationship between the work required and my pay. I consider that there is a balance in the way pay is differentiated in relation to the quantity and quality of work done. Decisions concerning work are made by my supervisor in an impartial manner (adapted).

Table 1. Cont.

ANAC Constructs	Alpha	Number of the Items	Sample Items
Career/professional development	0.903	5	In my research group, everyone's professional development path is well defined and clear. I believe that real career opportunities at my university are linked to merit. My university gives the opportunity to develop the skills and aptitudes of individuals in relation to the requirements of different roles. My current role is appropriate to my professional profile. I am satisfied with my professional career at my university (adapted).
Job autonomy	0.85	5	I know what is expected of my research work. I have the necessary skills to carry out my research work. I have the resources and tools necessary to carry out my research work. I have an adequate level of autonomy to carry out my research work. My research work gives me a sense of personal fulfilment.
Sense of belonging	0.912	5	I am proud when I tell someone that I work at my university. I am proud when my institution achieves a good result. I am sorry if someone speaks badly about my institution. The values and behaviors practiced in my university are consistent with my personal values. I would change my university if I could.
Goal sharing	0.936	4	I know my university's strategies. I share the strategic objectives of my university. I am clear about my university's achievements. I am clear about the contribution of my work to the achievement of the university's objectives.

3.3. Data Analysis

Statistical analyses were performed with R software [76]. To test our hypotheses, we first conducted a correlational analysis (see Table 2) to check for the relationships among the variables. Secondly, as the sample was not balanced for gender, we performed Levene's tests [77] to assess the equality of variance between female and male PhD students across the seven dimensions. Levene's test for health and safety at the university revealed that there was not a significant difference between the two variances ($F(1, 119) = 0.64, p = 0.425$). The same test was performed for all the other dimensions (discrimination, $F(1, 119) = 2.85, p = 0.094$; fairness, $F(1, 119) = 0.70, p = 0.792$; career, $F(1, 119) = 0.56, p = 0.456$; sense of belonging, $F(1, 119) = 0.42, p = 0.516$; goals sharing, $F(1, 119) = 0.64, p = 0.425$; and job autonomy, $F(1, 119) = 1.09, p = 0.298$) and the results showed that the variances between female and male PhD students were equal across the seven dimensions.

Table 2. Means, standard deviations and correlations with confidence intervals.

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Health and safety	4.61	0.94										
2. Discrimination	4.41	0.60	0.37 **									
			[0.21, 0.52]									
3. Fairness	3.55	1.27	0.61 **	0.45 **								
			[0.48, 0.71]	[0.29, 0.58]								
4. Career	3.55	1.30	0.67 **	0.42 **	0.75 **							
			[0.56, 0.76]	[0.26, 0.56]	[0.66, 0.82]							
5. Sense of belonging	4.26	1.28	0.57 **	0.37 **	0.55 **	0.73 **						
			[0.43, 0.68]	[0.20, 0.51]	[0.41, 0.66]	[0.63, 0.80]						
6. Goals sharing	4.11	1.51	0.59 **	0.32 **	0.52 **	0.67 **	0.60 **					
			[0.43, 0.71]	[0.11, 0.50]	[0.35, 0.66]	[0.54, 0.78]	[0.45, 0.72]					
7. Job autonomy	4.21	1.16	0.46 **	0.16	0.56 **	0.67 **	0.54 **	0.59 **				
			[0.31, 0.59]	[0.02, 0.33]	[0.42, 0.67]	[0.55, 0.75]	[0.40, 0.65]	[0.43, 0.72]				
8. ^a Gender	1.58	0.50	−0.21 *	0.08	−0.13	−0.14	−0.06	−0.16	−0.24 **			
			[0.37, 0.03]	[0.10, 0.26]	[0.30, 0.05]	[0.31, 0.04]	[0.24, 0.12]	[0.36, 0.06]	[−0.40, 0.06]			
9. Time	4.04	1.47	0.14	0.18	0.26 **	0.19 *	0.21 *	0.15	0.12	0.06		
			[−0.04, 0.31]	[−0.00, 0.35]	[0.08, 0.41]	[0.01, 0.35]	[0.03, 0.38]	[−0.07, 0.35]	[−0.06, 0.29]	[−0.12, 0.23]		
10. ^b University of northern Italy	0.31	0.46	−0.11	−0.12	−0.21 *	−0.27 **	−0.21 *	−0.17	−0.12	−0.12	−0.20 *	
			[−0.28, 0.07]	[−0.30, 0.05]	[−0.38, 0.04]	[−0.43, 0.10]	[−0.37, 0.03]	[−0.37, 0.05]	[−0.29, 0.06]	[−0.30, 0.06]	[−0.37, 0.03]	
11. ^b University of central Italy	0.12	0.32	0.24 **	0.18 *	0.31 **	0.27 **	0.25 **	0.34 **	0.32 **	−0.01	0.03	−0.24 **
			[0.07, 0.40]	[0.00, 0.35]	[0.14, 0.46]	[0.09, 0.42]	[0.07, 0.41]	[0.13, 0.52]	[0.15, 0.47]	[−0.18, 0.17]	[−0.15, 0.20]	[−0.40, 0.06]

Note. ^a Gender of participants was coded as 0 = male and 1 = female. *M* and *SD* are used to represent mean and standard deviation, respectively. ^b The reference category for the dummy variable university is the University of southern Italy; values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). * indicates $p < 0.05$. ** indicates $p < 0.01$.

The condition of variances homogeneity was respected and this allowed us to perform a one-way Analyses of Covariance (ANCOVA). We conducted the ANCOVAs using a type 3 sum of squares with the package car [78] to determine a statistically significant difference between female and male PhD students on the seven ANAC dimensions, controlling for the time of administration of the questionnaire and for the place where the university was located (north, center, or south). In particular, the time of the administration of the questionnaire was computed as the number of weeks from 1 June to 31 August and was included as an ordinal variable. On the other hand, the place where the university was located was computed by grouping all the universities stated by the participants across three categories: north Italy, center Italy and south Italy universities. This choice was taken in virtue of the ranking and economic differences between the northern, central and southern Italian universities. The obtained variable was a three-level categorical variable, which was subsequently imputed into two dummy variables with the south Italy level as the reference level.

4. Results

Table 3 reports the ANCOVA's effects for the seven ANAC dimensions. With H1, we expected that there would not be significant differences between male and female PhD students in the perception of the health and safety of the workplace. The ANCOVA's results for the dimension of health and safety at work showed a significant effect of the participants' gender after controlling for the questionnaire's time and the place of the university, $F(1, 121) = 6.28, p = 0.014, \eta_p^2 = 0.05$, revealing that, for female PhD students, the perception of a safe job space is lower ($M = 4.67, SD = 0.17$) than for their male counterparts ($M = 5.09, SD = 0.16$) (see Figure 1 for means comparisons). H1 was not supported. The ANCOVA results for the dimension of a lack of discrimination did not show a significant effect for the gender of the participants, $F(1, 121) = 0.60, p = 0.441, \eta_p^2 = 0.01$ (see Table 3), which did not corroborate our H2, which posited that female PhD students would perceive lower levels of discrimination compared to male PhD students. With H3, we hypothesized that female PhD students would perceive higher levels of fairness compared to male PhD students. The ANCOVA's results revealed no significant gender differences, $F(1, 121) = 3.60, p = 0.06, \eta_p^2 = 0.03$, again not supporting our H3.

Table 3. Fixed effects ANCOVA results using health and safety at work, lack of discrimination, fairness, career/professional development, sense of belonging, goal sharing and job autonomy as criterions.

Predictor	Sum of Squares	df	Mean Square	F	p	Partial η^2	Partial η^2 90% CI [LL, UL]
Health and safety at work							
(Intercept)	201.13	1	201.13	248.65	0.000		
Gender	5.08	1	5.08	6.28	0.014	0.05	[0.01, 0.13]
Time	1.85	1	1.85	2.28	0.134	0.02	[0.00, 0.08]
^a University of northern Italy	0.27	1	0.27	0.33	0.565	0.00	[0.00, 0.04]
^a University of central Italy	5.12	1	5.12	6.33	0.013	0.05	[0.01, 0.13]
Lack of discrimination							
(Intercept)	167.64	1	167.64	481.28	0.000		
Gender	0.21	1	0.21	0.60	0.441	0.01	[0.00, 0.05]
Time	1.07	1	1.07	3.07	0.082	0.03	[0.00, 0.09]
^a University of northern Italy	0.07	1	0.07	0.21	0.644	0.00	[0.00, 0.03]
^a University of central Italy	1.12	1	1.12	3.22	0.075	0.03	[0.00, 0.09]
Fairness							
(Intercept)	87.85	1	87.85	65.19	0.000		
Gender	4.85	1	4.85	3.60	0.060	0.03	[0.00, 0.10]
Time	10.04	1	10.04	7.45	0.007	0.06	[0.01, 0.14]
^a University of northern Italy	2.53	1	2.53	1.88	0.173	0.02	[0.00, 0.07]
^a University of central Italy	13.57	1	13.57	10.07	0.002	0.08	[0.02, 0.17]

Table 3. Cont.

Predictor	Sum of Squares	df	Mean Square	F	p	Partial η^2	Partial η^2 90% CI [LL, UL]
Career/Professional development							
(Intercept)	114.45	1	114.45	78.93	0.000		
Gender	5.77	1	5.77	3.98	0.048	0.03	[0.00, 0.10]
Time	4.25	1	4.25	2.93	0.089	0.02	[0.00, 0.09]
^a University of northern Italy	8.03	1	8.03	5.54	0.020	0.05	[0.00, 0.12]
^a University of central Italy	8.35	1	8.35	5.76	0.018	0.05	[0.00, 0.12]
Sense of belonging							
(Intercept)	142.58	1	142.58	95.71	0.000		
Gender	1.40	1	1.40	0.94	0.334	0.01	[0.00, 0.05]
Time	6.41	1	6.41	4.30	0.040	0.04	[0.00, 0.11]
^a University of northern Italy	3.01	1	3.01	2.02	0.158	0.02	[0.00, 0.07]
^a University of central Italy	8.05	1	8.05	5.40	0.022	0.04	[0.00, 0.12]
Goals sharing							
(Intercept)	106.30	1	106.30	52.85	0.000		
Gender	4.02	1	4.02	2.00	0.162	0.02	[0.00, 0.11]
Time	2.26	1	2.26	1.13	0.292	0.01	[0.00, 0.08]
^a University of northern Italy	1.90	1	1.90	0.94	0.334	0.01	[0.00, 0.08]
^a University of central Italy	15.11	1	15.11	7.51	0.008	0.09	[0.01, 0.20]
Job autonomy							
(Intercept)	168.50	1	168.50	147.77	0.000		
Gender	9.60	1	9.60	8.42	0.004	0.07	[0.01, 0.15]
Time	2.08	1	2.08	1.82	0.180	0.02	[0.00, 0.07]
^a University of northern Italy	0.34	1	0.34	0.30	0.587	0.00	[0.00, 0.04]
^a University of central Italy	14.32	1	14.32	12.56	0.001	0.10	[0.03, 0.19]

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.
^a The reference category for the dummy variable university is the University of southern Italy.

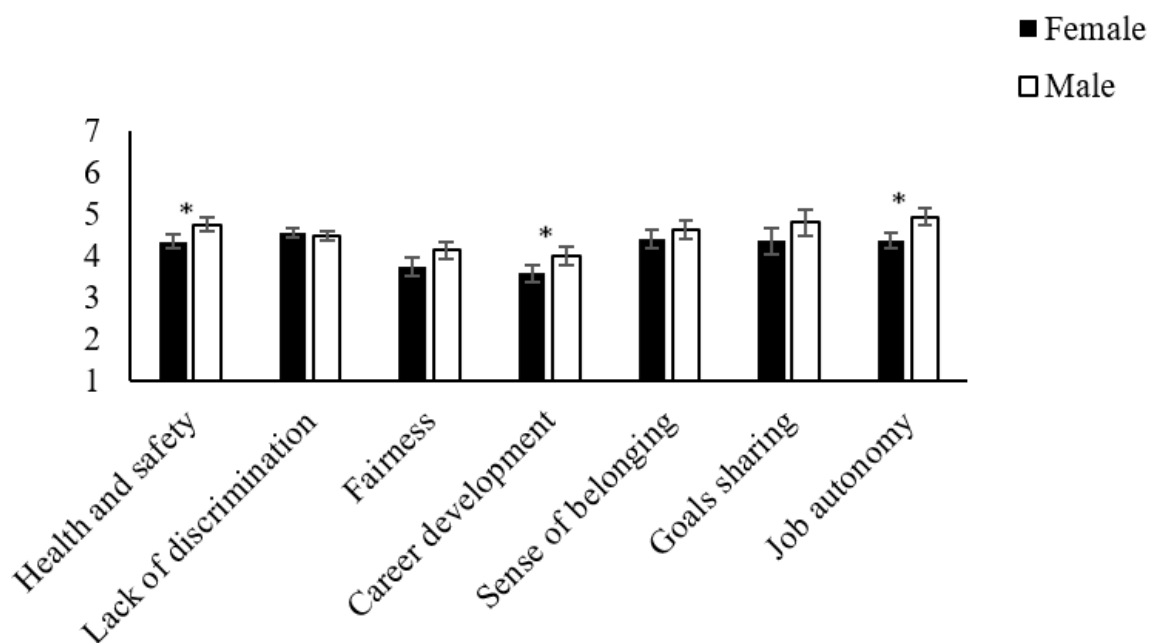


Figure 1. Means comparisons for outcome variables by gender of PhD students. Note. The brackets marked with an asterisk indicate significant differences.

With H4, we expected that the perception of career development would be lower for female than for male PhD students. The ANCOVA's results for the dimension of career and professional development showed a significant effect of the participants' gender after controlling for the questionnaire's time and the place of the university, $F(1, 121) = 3.98$, $p = 0.048$, $\eta_p^2 = 0.03$, revealing that, for female PhD students, the perception of career development was lower ($M = 3.58$, $SD = 0.22$) (see Figure 1) than for male PhD students ($M = 4.02$, $SD = 0.22$). Our H4 was fully supported.

With H5, we posited that female PhD students would report no statistical differences in the perception of a sense of belongingness. The results from the two ANCOVAs performed for the dimension of a sense of belonging revealed no significant gender differences on the dimension ($F(1, 121) = 0.94$, $p = 0.334$, $\eta_p^2 = 0.01$). Our H5 was fully supported.

With H6, we posited gender differences in the perception of university goal sharing, with female students scoring lower than their male counterparts. However, the results showed no significant differences ($F(1, 121) = 2.00$, $p = 0.162$, $\eta_p^2 = 0.01$). H6 was not corroborated. Finally, with H7, we expected that female PhD students would report lower levels of job autonomy than their male colleagues. The results from the ANCOVA ran for the dimension of job autonomy showed a significant effect of gender after controlling for the questionnaire time and university place, $F(1, 121) = 8.42$, $p = 0.004$, $\eta_p^2 = 0.07$. Female PhD students perceived lower levels of job autonomy ($M = 4.37$, $SD = 0.19$) than male PhD students, ($M = 4.95$, $SD = 0.20$), confirming our H7.

5. Discussion

There is a lack of studies investigating gender equality focusing on academic organizational well-being. Therefore, our research aimed at providing the first overview on gender differences in the perception of organizational well-being within a sample of Italian doctoral students. Our results revealed some important evidence to ground future studies.

First, this study highlights that gender can influence the perception of Italian doctoral candidates with respect to the health and safety of the universities they belong to; compared with international studies [34], Italian female students apparently have a worse perception of the health and safety of their universities when compared to male candidates.

In this regard, Escardibul, & Afcha (2017) found that female PhD students stressed, more than male PhD students, the importance of understanding, communication, relationships and ethics in determining a healthy environment. Further studies in Italy should explore if these variables are relevant in determining the organizational environment or whether there are other specific particularities making Italian universities less healthy and safe for female students.

Second, this study showed that gender could influence how Italian PhD candidates perceive their career development. This area of the questionnaire described the clarity of their career path within the university, the connection between professional development and merit and the promotion of competences and skills according to the organizational role covered, and was comprehensively evaluated with lower scores by the female doctoral students. The picture that emerged from the analyses substantially confirms some of the well-known fragilities of the Italian academic system that does not allow a clear definition of the professional paths in research, especially for female candidates. In the literature, the uncertainty of research career paths is widely documented [79]; in particular, there are organizational constraints—more in detail, the presence of short-term contracts for researcher positions—that impede professional plans for the future at an individual level both for female and male counterparts. The problem of career development is also closely related to a limited availability of funds for research. In Italy, these challenges are particularly felt, and they are the direct consequence of spending review policies in the field of education that have involved our country in recent years [80].

This research, in conclusion, suggests that the Italian system could disadvantage female candidates in career advancement from the very beginning of their professional path in academia. This finding raises a practical reflection on career management courses within universities. In particular, in addition to promoting internal professional advancement, universities could structure trainings for sustaining professional development beyond the academy. In this respect, synergies and alliances with enterprises could be supported to foster female employment in non-traditional research paths.

Lastly, the degree of autonomy of Italian PhD candidates seems to be different for female and male PhD students. This outcome is in line with what has been underlined by other studies [67,68] acknowledging that there is a bias regarding how organizational

tasks are managed when it comes to women. In terms of the practical implications, specific training for both supervisors and research teams could be delivered to raise awareness around gender issues at work, the biases that occur when assessing and assigning organizational tasks and the centrality of peer and supervisor support within the academic training process. The Italian system is still lacking these kinds of initiatives.

6. Conclusions

Is academia a sustainable place when it comes to gender equality? This research shows that there are a number of indicators for which female PhD students have statistically lower scores than male PhD students regarding: (1) the perception of health and safety at work; (2) career development; and (3) job autonomy.

In addition to this, there are no significant differences with respect to key indicators of organizational malaise such as discrimination and fairness. This is a starting point to continue working to create an academic environment that is perceived as sustainable by both male and female PhD students. In fact, we saw how one of Italy's goals is to keep its resources in the country. At the same time, although Italy is one of the European countries with the highest and most competitive education, it attracts little talent from outside [11]. Working on the well-being of young researchers can be a national and international advantage in creating a more stimulating, multi-ethnic research environment. However, further research is needed to verify these results. More in detail, further studies are needed to explore the lived experience of Italian female PhD students around organizational well-being.

7. Limitations

Despite our study providing the first overview of what might happen in the academic environment in terms of well-being perception among female and male PhD students, it is not free of limitations. First of all, our sample is representative only of the Italian population of PhD students. Secondly, we did not include other measures of gender bias and attitudes towards women, which might have helped in better understanding the significant differences registered in our analyses. Finally, as our study was cross-sectional and descriptive consequentially, we cannot imply any casual mechanism. Further quantitative studies should be developed in this direction.

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References

1. Jabbour, C.J.C.; de Sousa Jabbour, A.B.L. Green human resource management and green supply chain management: Linking two emerging agendas. *J. Clean. Prod.* **2016**, *112*, 1824–1833. [CrossRef]
2. Pham, N.T.; Hoang, H.T.; Phan, Q.P.T. Green human resource management: A comprehensive review and future research agenda. *Int. J. Manpower* **2019**, *41*, 845–878. [CrossRef]
3. Paulet, R.; Holland, P.; Morgan, D. A meta-review of 10 years of green human resource management: Is Green HRM headed towards a roadblock or a revitalisation? *Asia Pac. J. Hum. Resour.* **2021**, *59*, 159–183. [CrossRef]

4. Gupta, M.; Dharwal, M. Green entrepreneurship and sustainable development: A conceptual framework. *Mater. Today Proc.* **2022**, *49*, 3603–3606. [\[CrossRef\]](#)
5. Murphy, K. The social pillar of sustainable development: A literature review and framework for policy analysis. *Sustain. Sci. Pract. Policy* **2012**, *8*, 15–29. [\[CrossRef\]](#)
6. World Commission on Environment and Development. *Our Common Future*; Oxford University Press: Oxford, UK, 1987; Volume 17, pp. 1–91.
7. York, R.; Rosa, E.A.; Dietz, T. Ecological modernization theory: Theoretical and empirical challenges. In *The International Handbook of Environmental Sociology*, 2nd ed.; Edward Elgar Publishing: Cheltenham, UK, 2010.
8. Loiseau, E.; Saikku, L.; Antikainen, R.; Droste, N.; Hansjürgens, B.; Pitkänen, K.; Leskinen, P.; Kuikman, P.; Thomsen, M. Green economy and related concepts: An overview. *J. Clean. Prod.* **2016**, *139*, 361–371. [\[CrossRef\]](#)
9. Rocca, F.X. Italy suspends brain-drain program. *Chronicle* **2006**, *52*, A49.
10. OECD. Internationalisation of Higher Education. In *Policy Brief*; OECD: Paris, France, 2004.
11. Constant, A.F.; D’Agosto, E. Where Do the Brainy Italians Go? In *The Labour Market Impact of the EU Enlargement*; Caroleo, F., Pastore, F., Eds.; (AIEL Series in Labour Economics); Physica-Verlag HD: Heidelberg, Germany, 2010. [\[CrossRef\]](#)
12. Levecque, K.; Anseel, F.; De Beuckelaer, A.; Van der Heyden, J.; Gisle, L. Work organization and mental health problems in PhD students. *Res. Policy* **2017**, *46*, 868–879. [\[CrossRef\]](#)
13. Posselt, J. Normalizing Struggle: Dimensions of Faculty Support for Doctoral Students and Implications for Persistence and Well-Being. *J. High. Educ.* **2018**, *89*, 988–1013. [\[CrossRef\]](#)
14. Schmidt, M.; Hansson, E. Doctoral students’ well-being: A literature review. *Int. J. Qual. Stud. Health Well-Being* **2018**, *13*, 1508171. [\[CrossRef\]](#)
15. Stubb, J.; Pyhältö, K.; Lonka, K. Balancing between inspiration and exhaustion: PhD students’ experienced socio-psychological well-being. *Stud. Contin. Educ.* **2011**, *33*, 33–50. [\[CrossRef\]](#)
16. Lynam, S.; Lafarge, C. Mental Health & Wellbeing in Doctoral Students from BAME Backgrounds. Available online: https://eprints.lincoln.ac.uk/id/eprint/46225/7/Bites-issue-6-Researching-educationmental-health-where-now-what-next_Feb-2021.pdf#page=18 (accessed on 3 January 2022).
17. Wisker, G.; Robinson, G.; Bengtsen, S.S. Penumbra: Doctoral support as drama: From the ‘lightside’ to the ‘darkside’. From front of house to trapdoors and recesses. *Innov. Educ. Teach. Int.* **2017**, *54*, 527–538. [\[CrossRef\]](#)
18. Satinsky, E.N.; Kimura, T.; Kiang, M.V.; Abebe, R.; Cunningham, S.; Lee, H.; Tsai, A.C. Systematic review and meta-analysis of depression, anxiety, and suicidal ideation among Ph.D. students. *Sci. Rep.* **2021**, *11*, 14370.
19. Velardo, S.; Elliott, S. The emotional well-being of doctoral students conducting qualitative research with vulnerable populations. *Qual. Rep.* **2021**, *26*, 1522–1545. [\[CrossRef\]](#)
20. Woolston, C. PhDs: The tortuous truth. *Nature* **2019**, *575*, 403–407. [\[CrossRef\]](#) [\[PubMed\]](#)
21. Avallone, F. *Psicologia del Lavoro e delle Organizzazioni: Costruire e Gestire Relazioni nei Contesti Professionali e Sociali*; Carocci Editore: Roma, Italy, 2021.
22. Grawitch, M.J.; Gottschalk, M.; Munz, D.C. The path to a healthy workplace: A critical review linking healthy workplace practices, employee well-being, and organizational improvements. *Consult. Psychol. J. Pract. Res.* **2006**, *58*, 129. [\[CrossRef\]](#)
23. Sparks, K.; Faragher, B.; Cooper, C.L. Well-being and occupational health in the 21st century workplace. *J. Occup. Organ. Psychol.* **2001**, *74*, 489–509. [\[CrossRef\]](#)
24. Tamers, S.L.; Streit, J.M.; Chosewood, C. Promising Occupational Safety, Health, and Well-Being Approaches to Explore the Future of Work in the USA: An Editorial. *Int. J. Environ. Res. Public Health* **2022**, *19*, 1745. [\[CrossRef\]](#)
25. Cramer, E.; Hunter, B. Relationships between working conditions and emotional wellbeing in midwives. *Women Birth* **2019**, *32*, 521–532. [\[CrossRef\]](#)
26. Fila, M.J.; Purl, J.; Jang, S.R. Demands, Resources, Well-Being and Strain: Meta-Analyzing Moderator Effects of Workforce Racial Composition. *Appl. Res. Qual. Life* **2022**, 1–28. [\[CrossRef\]](#)
27. Majumdar, A.; Kumar, S. Organizational Justice and Employee Well-being in India: Through a Psychological Lens. *Bus. Perspect. Res.* **2022**, 1–18. [\[CrossRef\]](#)
28. Bastida, M.; Neira, I.; Lacalle-Calderon, M. Employee’s subjective-well-being and job discretion: Designing gendered happy jobs. *Eur. Res. Manag. Bus. Econ.* **2022**, *28*, 100189. [\[CrossRef\]](#)
29. Viitala, R.; Tanskanen, J.; Sääntti, R. The connection between organizational climate and well-being at work. *Int. J. Organ. Anal.* **2015**, *23*, 607–619. [\[CrossRef\]](#)
30. Zanabazar, A.; Jigiddorj, S. Relationships between mental workload, job burnout, and organizational commitment. *SHS Web Conf.* **2022**, *132*, 1–11. [\[CrossRef\]](#)
31. Huck-Fries, V.; Talalaieva, O.; Krcmar, H. Highly Engaged, Less Likely to Quit?—A Theoretical Perspective on Work Engagement and Turnover in Agile Information Systems Development Projects. 2022. Available online: https://aisel.aisnet.org/wi2022/digital_labor/digital_labor/6/ (accessed on 1 January 2022).
32. Skakon, J.; Nielsen, K.; Borg, V.; Guzman, J. Are leaders’ well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. *Work Stress* **2010**, *24*, 107–139. [\[CrossRef\]](#)
33. Mao, H.Y. Employees’ feedback-seeking strategies and perceptions of abusive supervision. *Soc. Behav. Personal. Int. J.* **2022**, *50*, 1–8. [\[CrossRef\]](#)

34. Escardíbul, J.O.; Afcha, S. Determinants of the job satisfaction of PhD holders: An analysis by gender, employment sector, and type of satisfaction in Spain. *High. Educ.* **2017**, *74*, 855–875. [\[CrossRef\]](#)
35. Heilman, M.E.; Caleo, S. Gender discrimination in the workplace. In *The Oxford Handbook of Workplace Discrimination*; Colella, A., King, E., Eds.; Oxford University Press: Oxford, UK, 2018.
36. Fitzgerald, L.F.; Cortina, L.M. Sexual harassment in work organizations: A view from the 21st century. In *APA Handbook of the Psychology of Women: Perspectives on Women's Private and Public Lives*; Travis, C.B., White, J.W., Rutherford, A., Williams, W.S., Cook, S.L., Wyche, K.F., Eds.; American Psychological Association: Washington, DC, USA, 2018; pp. 215–234.
37. Nyunt, G.; O'Meara, K.; Bach, L.; LaFave, A. Tenure Undone: Faculty Experiences of Organizational Justice When Tenure Seems or Becomes Unattainable. *Equity Excell. Educ.* **2022**, 1–15. [\[CrossRef\]](#)
38. Jost, J.T.; Banaji, M.R. The role of stereotyping in system-justification and the production of false consciousness. *Br. J. Soc. Psychol.* **1994**, *33*, 1–27. [\[CrossRef\]](#)
39. Ridgeway, C.L. *Framed by Gender: How Gender Inequality Persists in the Modern World*; Oxford University Press: Oxford, UK, 2011.
40. Brady, L.M.; Kaiser, C.R.; Major, B.; Kirby, T.A. It's fair for us: Diversity structures cause women to legitimize discrimination. *J. Exp. Soc. Psychol.* **2015**, *57*, 100–110. [\[CrossRef\]](#)
41. Moulds, E.F. Chivalry and paternalism: Disparities of treatment in the criminal justice system. In *Women, Crime and Justice*; Datesman, S., Scarpitti, F., Eds.; Oxford University Press: New York, NY, USA, 1980; pp. 275–299.
42. Visher, C.A. Gender, police arrest decisions, and notions of chivalry. *Criminology* **1983**, *21*, 5–28. [\[CrossRef\]](#)
43. Pollak, O. *Criminality of Women*; AS Barnes and Company: New York, NY, USA, 1950.
44. Broverman, I.K.; Vogel, S.R.; Broverman, D.M.; Clarkson, F.E.; Rosenkrantz, P.S. Sex-role stereotypes: A current appraisal. *J. Soc. Issues* **1972**, *28*, 59–78. [\[CrossRef\]](#)
45. Glick, P.; Fiske, S.T. The ambivalent sexism inventow: Differentiating hostile and benevolent sexism. *J. Personal. Soc. Psychol.* **1996**, *70*, 491–512. [\[CrossRef\]](#)
46. Waaijer, C.J.; Sonneveld, H.; Buitendijk, S.E.; van Bochove, C.A.; van der Weijden, I.C. The role of gender in the employment, career perception and research performance of recent PhD graduates from Dutch universities. *PLoS ONE* **2016**, *11*, e0164784. [\[CrossRef\]](#)
47. Aguirre, A., Jr. *Women and Minority Faculty in the Academic Workplace: Recruitment, Retention, and Academic Culture*; (Jossey-Bass Higher and Adult Education Series); ASHE-ERIC Higher Education Report; Jossey-Bass: San Francisco, CA, USA, 2000; Volume 27.
48. Hagedorn, L.S. Conceptualizing faculty job satisfaction: Components, theories, and outcomes. *New Dir. Inst. Res.* **2000**, *27*, 5–20. [\[CrossRef\]](#)
49. Seifert, T.A.; Umbach, P.D. The effects of faculty demographic characteristics and disciplinary context on dimensions of job satisfaction. *Res. High. Educ.* **2008**, *49*, 357–381. [\[CrossRef\]](#)
50. Webber, K.L.; Rogers, S.M. Gender differences in faculty member job satisfaction: Equity forestalled? *Res. High. Educ.* **2018**, *59*, 1105–1132. [\[CrossRef\]](#)
51. Eisenberger, R.; Huntington, R.; Hutchison, S.; Sowa, D. Perceived organizational support. *J. Appl. Psychol.* **1986**, *71*, 500. [\[CrossRef\]](#)
52. De Leo, A.; Cianci, E.; Mastore, P.; Gozzoli, C. Protective and risk factors of Italian healthcare professionals during the COVID-19 pandemic outbreak: A qualitative study. *Int. J. Environ. Res. Public Health* **2021**, *18*, 453. [\[CrossRef\]](#)
53. Gozzoli, C.; De Leo, A. Receiving asylum seekers: Risks and resources of professionals. *Health Psychol. Open* **2020**, *7*, 2055102920920312. [\[CrossRef\]](#)
54. Rhoades, L.; Eisenberger, R. Perceived organizational support: A review of the literature. *J. Appl. Psychol.* **2002**, *87*, 698. [\[CrossRef\]](#) [\[PubMed\]](#)
55. Eisenberger, R.; Stinglhamber, F. *Perceived Organizational Support: Fostering Enthusiastic and Productive Employees*; American Psychological Association: Washington, DC, USA, 2011.
56. Albert, S.; Whetten, D.A. Organizational identity. *Res. Organ. Behav.* **1985**, *7*, 263–295.
57. Merton, R.K.; Reader, G.; Kendall, P.L. *The Student Physician: Introductory Studies in the Sociology of Medical Education*; Harvard University Press: Cambridge, MA, USA, 1957.
58. Pease, J. Faculty influence and professional participation of doctoral students. *Sociol. Inq.* **1967**, *37*, 63–70. [\[CrossRef\]](#)
59. Weidman, J.C.; Stein, E.L. Socialization of doctoral students to academic norms. *Res. High. Educ.* **2003**, *44*, 641–656. [\[CrossRef\]](#)
60. Gillet, N.; Vallerand, R.J.; Amoura, S.; Baldes, B. Influence of coaches' autonomy support on athletes' motivation and sport performance: A test of the hierarchical model of intrinsic and extrinsic motivation. *Psychol. Sport Exerc.* **2010**, *11*, 155–161. [\[CrossRef\]](#)
61. Moreau, E.; Mageau, G.A. The importance of perceived autonomy support for the psychological health and work satisfaction of health professionals: Not only supervisors count, colleagues too! *Motiv. Emot.* **2012**, *36*, 268–286. [\[CrossRef\]](#)
62. Thibaut, J.W.; Walker, L. *Procedural Justice: A Psychological Analysis*; L. Erlbaum Associates: Mahwah, NJ, USA, 1975.
63. Leventhal, G.S. What should be done with equity theory? In *Social Exchange*; Springer: Boston, MA, USA, 1980; pp. 27–55.
64. Rodwell, J.; Noblet, A.; Demir, D.; Steane, P. Supervisors are Central to Work Characteristics Affecting Nurse Outcomes. *J. Nurs. Sch.* **2009**, *41*, 310–319. [\[CrossRef\]](#) [\[PubMed\]](#)

65. Derks, B.; van Laar, C.; Ellemers, N. The queen bee phenomenon: Why women leaders distance themselves from junior women. *Leadersh. Q.* **2016**, *27*, 456–469. [[CrossRef](#)]
66. Paustian-Underdahl, S.C.; King, E.B.; Rogelberg, S.G.; Kulich, C.; Gentry, W.A. Perceptions of supervisor support: Resolving paradoxical patterns across gender and race. *J. Occup. Organ. Psychol.* **2017**, *90*, 436–457. [[CrossRef](#)]
67. Sarsons, H. Recognition for group work: Gender differences in academia. *Am. Econ. Rev.* **2017**, *107*, 141–145. [[CrossRef](#)]
68. Winchester, H.P.; Browning, L. Gender equality in academia: A critical reflection. *J. High. Educ. Policy Manag.* **2015**, *37*, 269–281. [[CrossRef](#)]
69. Pew, E.; Zamudio, C.; Meng, H.M. Beyond perception: The role of gender across marketing scholars' careers, in reply to Galak and Kahn. *Mark. Lett.* **2021**, *32*, 313–323. [[CrossRef](#)]
70. Correll, S.J. Gender and the career choice process: The role of biased self-assessments. *Am. J. Sociol.* **2001**, *106*, 1691–1730. [[CrossRef](#)]
71. González Ramos, A.M.; Fernández Palacín, F.; Muñoz Márquez, M. Do men and women perform academic work differently? *Tert. Educ. Manag.* **2015**, *21*, 263–276. [[CrossRef](#)]
72. Faul, F.; Erdfelder, E.; Buchner, A.; Lang, A.G. Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behav. Res. Methods* **2009**, *41*, 1149–1160. [[CrossRef](#)]
73. ANAC. Autorità Nazionale Anticorruzione. Modelli per la Realizzazione di Indagini sul Benessere Organizzativo, sul Grado di Condivisione del Sistema di Valutazione e Sulla Valutazione del Superiore Gerarchico. 2013. Available online: http://www.anticorruzione.it/portal/public/classic/home/_RisultatoRicerca?id=ed0d622e0a77804266c291bc669a1d05&search=benessere (accessed on 12 February 2019).
74. Cortese, C.G.; Emanuel, F.; Colombo, L.; Bonaudo, M.; Politano, G.; Ripa, F.; Gianino, M.M. The Evaluation of Organizational Well-Being in An Italian Teaching Hospital Using the ANAC Questionnaire. *Int. J. Environ. Res. Public Health* **2019**, *16*, 1056. [[CrossRef](#)]
75. Taber, K.S. The use of Cronbach's alpha when developing and reporting research instruments in science education. *Res. Sci. Educ.* **2018**, *48*, 1273–1296. [[CrossRef](#)]
76. R Core Team. *R: A Language and Environment for Statistical Computing*; R Foundation for Statistical Computing: Vienna, Austria, 2020; Available online: <https://www.R-project.org/> (accessed on 1 January 2022).
77. Levene, H. Robust Tests for Equality of Variances. In *Contributions to Probability and Statistics*; Olkin, I., Ed.; Stanford University Press: Palo Alto, CA, USA, 1960; pp. 278–292.
78. Fox, J.; Weisberg, S. *An R Companion to Applied Regression*, 3rd ed.; SAGE Publications Inc.: Thousand Oaks, CA, USA, 2019.
79. Skakni, I.; Calatrava Moreno, M.D.C.; Seuba, M.C.; McAlpine, L. Hanging tough: Post-PhD researchers dealing with career uncertainty. *High. Educ. Res. Dev.* **2019**, *38*, 1489–1503. [[CrossRef](#)]
80. Abatemarco, A.; Dell'Anno, R. Italian Reform of the academic recruitment system. An appraisal of ANVUR and CUN benchmarks for assessing candidates and commissioners. *Rivista Italiana degli Economisti* **2012**, *17*, 441–480.