Deepening inequalities: What did COVID-19 reveal about the gendered nature of academic work?

Anna Maria Górska1 | Karolina Kulicka2 | Zuzanna Staniszewska1 | Dorota Dobija3

1Marketing Department, Kozminski University, Warszawa, Poland
2State University of New York at Buffalo (SUNY Buffalo), Buffalo, New York, USA
3Accounting Department, Kozminski University, Warszawa, Poland

Abstract

This study discusses the gendered nature of the transformation of academic work, which has been accelerated by the COVID-19 pandemic. We collected empirical material in spring 2020, at the peak of the pandemic, via 28 interviews with academics in Poland. The results illustrate the far-reaching and lasting impacts of the pandemic on academia that reinforce existing gender inequalities and bring new ones. The study also reveals the invisible academic work, which is performed mostly by female faculty. This work, neither recognized nor rewarded in the course of women’s academic careers, deepens the gendered organization of work in higher education institutions.

KEYWORDS

COVID-19, gender inequality in academia, invisible academic work, women in academia

1 INTRODUCTION

The COVID-19 pandemic has deeply transformed academic life. Institutional arrangements introduced to stop the spread of the virus are becoming entrenched in the way academics teach, conduct research, and share knowledge (Malisch et al., 2020; Nash & Churchill, 2020; The Lancet, 2020). They are likely to persist over the next years, delineating new paths for further development while foreclosing others. The transition forced upon academia by the pandemic constitutes a critical juncture—a moment of significant change that sets institutions on a certain development path and produces distinct and long-lasting legacies (Capoccia & Kelemen, 2007; Waylen, 2009).

This article explores the impact of changes in the academic landscape brought about by the pandemic on gender equality in higher education institutions (HEIs). Early autoethnographic accounts of the experience of
academics during the lockdown suggested that pandemic-related changes in academic teaching, research, and community service are not gender neutral. Women academics have been disproportionately affected by them (Boncori, 2020; Guy & Arthur, 2020; Pereira, 2021). In May and June 2020, during the first global peak of the pandemic, our research team conducted a qualitative study of the impact of the transformation of academic workspaces on male and female faculty. We conducted 28 interviews with Polish academics working and teaching remotely to gain insight into gender-specific challenges and obstacles and ways of overcoming them. These interviews provided rich empirical material that documents the far-reaching gendering consequences of COVID-19 for academia.

The main contribution of this study is that it unmasks how the COVID-19 pandemic has amplified pre-existing gender and class privileges and their association with the success of academic careers. The pandemic has exacerbated inequalities that advance the careers of some academics while blocking others. During the pandemic, existing gender inequalities are no longer manageable, especially for academics responsible for children and other dependents. The interviews also revealed certain highly gendered forms of academic work, such as providing students with emotional and psychological support, for which demand has grown during the pandemic. These unrecognized forms of work constitute blind spots in the organization of academic work, because they are neither recognized nor rewarded by the HEIs in decisions concerning tenure and career advancement.

The timing of our research during the COVID-19 pandemic and its broad and diverse sample of participants represent a rich contribution to the literature. Current research on the influence of COVID-19 on academic work comprises mostly theory, commentary, opinion, and autoethnographic accounts (Abdellatif & Gatto, 2020; Boncori, 2020; Guy & Arthur, 2020; Plotnikof et al., 2020). To date, few studies have been based on empirical data (Andersen et al., 2020; Jessen & Waights, 2020). Existing empirical studies are typically quantitative (Yildirim & Eslen-Ziya, 2020) or based on secondary data (McLaren et al., 2020; Nash & Churchill, 2020), lacking the direct perspective of participants. Autoethnography and reflective narration offer critical insights, but are limited to a single perspective, narrowed down to the social and economic situation of the authors.

Furthermore, the geographical location of this study, Poland, provides a novel perspective to the literature. Most research on gender in academia has been conducted in the United States and Western Europe. There is a significant gap in related research in Eastern Europe. A review of the Polish literature suggests that ours is the first study to examine the organization of work and division of labor in Polish academia from a gender perspective. An analysis carried out during this study revealed that fewer than 1% of papers published over the last 10 years published in Gender, Work and Organization relate to Eastern Europe. Within the broad field of gender and organizations, Eastern Europe has maintained its status of a nonregion, omitted in global debates, and “belonging to neither the developing nor the developed world,” as stated during the World Conference on Women held in 1995 in Beijing (Nowicka, 2014).

Polish academia is a productive research setting for the study of gender inequality because it exemplifies multiple development trends that can be observed globally and shape HEIs’ responses to COVID-19. Amid the country’s postsocialist transition following the demise of the Soviet bloc in 1989, Polish HEIs have undergone reforms that introduced neoliberal, market-driven models of academia (Wnuk-Lipińska, 1996). These reforms involve the marketization of higher education, performance-based management, underpayment for academic work, dependence on scholarship and grants, and focus on measuring performance by publication in highly ranked academic journals (S. Acker & Armenti, 2004; Kulczynski et al., 2017; Kwiec, 2019; Leathwood & Read, 2013). These organizational trends constitute the essential context for analyzing the impact of COVID-19 on gender equality in academia.

Second, Polish HEIs exemplify the modern economy of gender discrimination in academic institutions, created by the discrepancy between a relatively high number of women in academia and their limited access to substantive institutional power, resources, and career opportunities (Siemieńska, 2001). Between 1989 (the fall of the Soviet block and state socialism) and 2018, the percentage of women employed in academic positions in Poland increased from 37% to 45% (Popiński, 2019). The percentage of women among academics in Poland is currently above the
European Union average of 42% (World Bank, 2019), and the rate of women among professors is among the highest in the European Union (Popiński, 2019). However, in most academic disciplines, gender discrimination still thrives (Młodożeniec & Knapińska, 2013; Popiński, 2019; Siemienińska, 2019). According to Fuszara (2006), women in Polish higher education tend to hold positions that do not involve scientific work (administrative staff, librarians), or they remain lower level researchers. Siemienińska (2019) shows a clear discrepancy between women and men in terms of access to scholarships and frequency of trips abroad aimed at career development. There is also blatant disproportional access to funding from the National Science Center in Poland for male and female academics (Młodożeniec & Knapińska, 2013; Siemienińska, 2019). Men are more likely to be project coordinators than women are (Młodożeniec & Knapińska, 2013; Siemienińska, 2019). Overall, the data demonstrate that Poland’s neoliberal development trends in academia have added new forms of gender inequality to the ones already existing during the socialist period.

The implications of this study extend beyond the pandemic. As many changes related to the pandemic are likely to stay in postpandemic work (e.g., growing reliance on hybrid/online learning, economic insecurity, and depleted funding for HEIs), COVID-19 provides a lens to explore the gendered nature of a broader, ongoing transformation of the organization of academic work, standards of merit and academic excellence.

The remainder of this article is structured as follows. Section 2 presents the theoretical background and a literature review. Section 3 describes the research method. Section 4 presents the findings. Section 5 discusses the results. Section 6 concludes this article.

2 | THEORETICAL BACKGROUND AND LITERATURE REVIEW

The theoretical framework of this study is based on the theory of gendered organizations (J. Acker, 1990, 2006; S. Acker, 1994; Benschop, 2001; Benschop & Brouns, 2003). J. Acker (1990) defines a gendered organization as one in which “advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine” (p. 146). From this perspective, gender, understood as the structure of social relations that brings distinctions between bodies, sexualities, and reproductive practices into social processes and inequalities of power, shapes academic culture, structure, division of labor, spatial arrangements, and standards of organizational excellence (Bailyn, 2003; Benschop & Brouns, 2003; Bourdieu, 1988; Clavero & Galligan, 2021; Goode & Bagilhole, 1998; Katila & Meriläinen, 1999).

The nature of academic institutions is inherently gendered because HEIs do not operate in a void but are part and parcel of patriarchal social structures. Despite claims of objective, meritocratic criteria for promotion, tenure, and academic success in general, other factors such as class, race, and gender highly determine a rewarding academic career. For example, academia is not a hospitable place for women with children (Nikunen, 2014; O’Keefe & Courtois, 2019). Academic mothers face a “motherhood penalty,” that is a decrease in salary and professional development possibilities resulting from disproportional responsibility for childcare and a set of stereotypes about mothers as less competent, capable, and committed than people without children (Benard & Correll, 2010; Glauber, 2018). The ideal academic worker is assumed by HEIs to be a white man with little responsibility for care work outside his academic career (Bailyn, 2003; Bleijenbergh et al., 2013; Knights & Richards, 2003; Van den Brink & Benschop, 2012a, 2012b).

The fact that academic institutions exist within long-lasting patriarchal social structures does not preclude their constant transformation. Contrary to the image that comes to mind with the metaphor of academia as an ivory tower, HEIs are always in flux. They undergo constant transitions and react to external pressures of economic, social, political, and demographic forces. Scholars of higher education transformation document the gendered character of these changes (Benschop & Verloo, 2011; Ely & Meyerson, 2000; Van den Brink & Benschop, 2012a, 2012b; Van den Brink & Stobbe, 2009). For example, researchers have discovered that the process of “the
projectification of academia” (Ylijoki, 2016, Abstract) and increased dependence on third-party research funding negatively impact the chances of female academics securing funding for their projects (Ahlqvist et al., 2015; Herschberg, 2018). The increasing global corporatization and commodification of HEIs, the reframing of students as customers, and the growing importance of student evaluations have a growing impact on the career advancement of faculty (Ashencaen Crabtree & Shiel, 2019; Dobija et al., 2019; Kloot, 2004; Probert, 2005), with discriminatory results for female staff (MacNell et al., 2015). Ashencaen et al. (2019) observe that students expect male instructors to be objective and female instructors to be warm and possess good interpersonal skills. Those who fail to comply with these norms may receive lower ratings due to these gendered expectations. The growing importance of publishing, citation impact, and publishing record for the assessment of academic ability has been found to benefit male academics who, on average, publish more papers and receive more citations than female researchers (Aksnes et al., 2011; Maliniak et al., 2013). The precarization of academic labor, related to the process of its commodification and marketization, negatively affects those working in lower academic ranks and under temporary, short-term working arrangements, that is, positions disproportionately filled by women and minorities (Ivancheva et al., 2019; O’Keefe & Courtois, 2019; She Figures, 2018). As a result, despite a growing number of women in academic positions, systemic gender discrimination remains deeply entrenched in academia across the world (Deem, 2003; Teichler & Höhle, 2013; Thun, 2020).

Emerging global evidence suggests that female researchers, already disadvantaged in their workplace prior to the pandemic, have been disproportionately hit by the repercussions of COVID-19 (Andersen et al., 2020). The Australian Academy of Technology and Engineering and Science & Technology Australia report that female scientists in Australia, who are 1.5 times more likely to undertake temporary or casual work, were more likely to lose their jobs, hours, paid work, and career opportunities than their male counterparts were (quoted in Gewin, 2020). Women with caring responsibilities in academia have been hit particularly hard by lockdown measures (Korbel & Stegle, 2020; Nash & Churchill, 2020; Yildirim & Eslen-Ziya, 2020). COVID-19-related competing demands stemming from parenting, homeschooling, and other caring duties, which are predominantly performed by women, have led to a decrease in research productivity, especially among female researchers (Andersen et al., 2020; Kitchener, 2020; Minello, 2020; Woodward et al., 2020). During the coronavirus pandemic, the number of academic papers submitted and published by women was lower than expected; at the same time, the number of papers submitted and published by men increased (Andersen et al., 2020; Flaherty, 2020; Kitchener, 2020; Woodward et al., 2020). Researchers have reported higher levels of stress, fear, and anxiety among women (González-Sanguino et al., 2020; Lee et al., 2020), often related to job loss, unemployment, loneliness, and self-blame for not satisfying family needs (Lee et al., 2020).

The autoethnographic accounts of women academics paint a picture of academia under lockdown as an inhospitable and unmanageable working environment for women, especially those with children (Boncori, 2020; Guy & Arthur, 2020; Plotnikof et al., 2020). The burden of COVID-19-specific additional household duties, anxiety, and uncertainty about the future is even greater for women who face intersecting systems of oppression, such as ethnicity, race, sexual orientation, gender, age, economic class, dependent status, and ability (Malisch et al., 2020).

3 | RESEARCH METHOD

We conducted interviews with Polish academics between May and June 2020. At that time, Poland was experiencing the first peak of the COVID-19 pandemic, and all interviewed academics were working remotely from their homes or other places outside university campuses. Overall, we conducted 28 semistructured, in-depth, individual interviews with 15 women and 13 men (Appendix 1).

We used purposive sampling techniques to select participants, who were invited by email to participate in the study. We strove to ensure maximum diversity of the research sample and an equal representation of men and women. We invited participants from numerous institutions, at different stages of career development, and with
varying family status. We chose respondents who worked at different types of academic institutions (universities, institutes of the Polish Academy of Sciences, and research centers), as these academic institutions differ in terms of the intensity of research. To ensure the geographical diversity of the sample, study participants were selected from several universities throughout Poland. All participants came from large Polish cities.

In terms of academic field, study participants were recruited from among management and law scholars. We decided against employing a broad disciplinary representation for a better comparison, without methodological and organizational differences across disciplines interfering with the analysis. The structure of the sample reflects the population of academics in Poland by academic position (Popiński, 2019). Among the interviewees, 17 were junior faculty and assistant professors, eight were associate professors, and two were tenured. The participants' duration of employment at the institutions ranged from less than 1 year to 20 years.

Regarding respondents' family situation, 20 participants were married, 19 had children, and 6 had working spouses; 17 of the 28 participants were Polish and 1 was Ukrainian.

Each interview lasted from 30 to 60 min and was conducted online via Microsoft Teams in Polish. The questions were open ended, allowing respondents to speak freely about their experiences and set the flow of the interview (McCracken, 1988). Each interview covered the same themes, but the interview scenario was used flexibly, encouraging each respondent to voice his or her own narrative (Riessman, 1993). Although the interview scenario included questions about different aspects of academic work, our interviewees focused mostly on teaching and research, as due to lockdown measures, other academic activities, such as community service and administrative tasks, were limited and restricted.

All data obtained from the interviews were coded and analyzed using MaxQDA software. Coding was conducted on three levels: open, axial, and selective (Strauss & Corbin, 1998). First, open initial codes were created based on textual field data. Subsequently, axial coding was adopted to identify and integrate the relationships between codes and to create broader categories. Finally, selective coding was used to define and develop broader clusters of codes and to present a broader story. In the Findings section, women interviewees are coded as F, while men as M.

4 FINDINGS

Our interviews show that the transition to an online academic environment during the lockdown has had different consequences for male and female academics, particularly those with children. As homes turned into workspaces, the motherhood penalty and patriarchal division of labor within the private sphere set different starting points for male and female academics’ ability to perform professional work. The following quote from a male academic whose wife also works at an HEI illustrates how the uneven playing field for men and women in academia worsened after the onset of the pandemic.

My wife’s work has been compromised (...), whereas mine was not affected at all. It even got better, and I could work longer. So, my work has definitely been prioritized over my wife's. (M13)

This comment and those of other interviewees demonstrate that the existing prioritization of men's work within the family was reinforced during the pandemic. Female academics perceived their academic duties to be flexible enough to allow them to take care of the household and children. They would perform their home obligations in the day, and catch up with most of their professional work in the evenings and at night.

I think I took on more household duties than my husband, because my work at the university gives me more flexibility. (F7)
Male respondents stated that their academic work obligations did not allow for flexibility, and therefore, they could not afford to take on additional household chores.

When it comes to personal life, household duties, and stuff like that, I’m probably less involved than before. I continue to work, and I still have classes, and it is only when I have a break that I can take care of the children. I have no choice; I have these classes. (M2)

The findings section presents the gendered impacts of COVID-19 on two main areas of academic activity: teaching and research. Other aspects of academic work (e.g., administrative duties and community service) were largely put on hold during the lockdown.

### 4.1 Teaching activity

The transition to distance learning has forced academics to change not only their teaching tools but also course content, materials, student evaluation methods, and examination formulas (Mishra et al., 2020). The academics in our study stated that online teaching was more time consuming and demanding than face-to-face classes owing to limited direct contact with students, technological obstacles, and lack of ready-to-use online educational materials. Thus, they spent significantly more time preparing classes and working with individual students. One interviewee said professors had become “one-person universities.”

I do everything, I help everyone, I’m an IT specialist, a methodology expert, a scientist, I don’t know what else. (M2)

Interviewees pointed out that online learning is also more demanding for students, as they have difficulty focusing, are less engaged, and require more guidance. Most students are not used to the online learning formula, which has resulted in faculty assisting students via numerous individual emails and individual consultations to students.

I would probably say that every 1.5 hours of teaching requires an additional 8–10 hours of office work per week per group. (F5)

Our interviewees said that distance learning had a profound impact on their duties as supervisors of bachelor’s, master’s, and doctoral students. Online supervision became more individualized than that of traditional face-to-face interaction. This may have a positive effect on the quality of students’ work, but is significantly more time consuming for faculty.

After a 10-minute face-to-face conversation, everything was clear. Now, I spend 40 minutes writing an email in which I explain everything. When we met face-to-face, students asked more questions. Now, they ask fewer questions, so I repeat everything three times. They then send me a project, and it turns out that many things mentioned in the email and explained to them have not been done. (M4)

Interviewees noticed that students had difficulty understanding the tasks described in the emails. During face-to-face conversations, it was easier for students to ask follow-up questions, understand directions, and act accordingly.

Even though both men and women pointed to challenges connected with online teaching, we observed gender differences regarding the specificity of these challenges and responses to them. While both men and women...
claimed to have more individualized interaction with students than before the pandemic, men focused on formal support in terms of course content, while women reported a sense of responsibility for supporting students not only with academic work, but also psychologically and emotionally.

I have devoted a lot of time to my [international] students.... They are alone, without a family close by (...) we can sometimes talk for an hour longer than planned, if I ask them what they are doing, how they feel. (...) Do they need help? Are they able to do their shopping, to buy food? Are they managing it all? (F1)

In response to students’ anxiety and emotional needs, female professors reported trying to be more accessible. They agreed to be contacted via messenger systems, Facebook, and telephone.

Of course, they can also always speak to me, and they do take this opportunity quite often. (...) So, I often contact students using different tools and at various times. (F2)

By contrast, male interviewees only pointed out course content-related and technical support they offered to students. They did not pay much attention to their students’ mental health.

I don’t feel that students need [support]. At one university where I work, (...) students are very independent and mature. At my second university, they have strictly professional goals. (M6)

M6, a male university professor, perceived his students to be mature professionals who could cope with academic challenges on their own. By comparison, the interviewed female professors testified to considerable challenges reported by the majority of students during the pandemic, and this is supported by Malisch et al. (2020). In summary, while female academics regarded their role as supporting students’ general emotional well-being, male academics considered their responsibility to be limited to course content and technical assistance. Male academics focused on their own challenges connected with distance teaching, while female academics often took into account their students’ perspective and pandemic-related emotional psychological needs. Responding to these needs required additional emotional input from women.

Previous research has shown that the emotional and care work in HEIs is performed mostly by female academics (Heijstra et al., 2017; Misra et al., 2011; Moore et al., 2010). The responses collected in this study show how COVID-19 deepened the unequal distribution of emotional, relational, and care work among HEI faculty, with much higher expectations placed on female academics. As the emotional work done in the academic setting is largely unrecognized, earns less prestige, and carries less potential for promotion, this change is likely to have a negative impact on female academics’ careers.

4.2 | Research activity

Academic research consists of conceptual work, collecting data, participation in conferences, maintaining and organizing the work of research teams, and so forth. Our study reveals that the overall research productivity of academic workers has been significantly impacted by the pandemic and that female academics have been disproportionately affected (Amano-Patiño et al., 2020; Andersen et al., 2020; Woodward et al., 2020). The two factors with the greatest impact on research productivity are the size of the teaching load and the burden of childcare when schools and kindergartens are closed (Lutter & Schröder, 2020; Taylor et al., 2006). Both factors are closely related to gender.

In our study, male academics, both with and without children, and women without school-going children claimed that their research productivity had increased during the lockdown.
I think that research work especially is booming for me now. Since I started working from home, I have been able to send and write and complete [research] [...]. I have finished and submitted five articles. So, for 2 months, this is really a spectacular result. (F1)

[Research productivity] has grown in virtually every aspect. During these three months, I have made such a leap, I have learned so many things, read so many things, written so many things. I wouldn't have been able to do as much over, I don't know, maybe 6 months of regular work. (M5)

However, women with children had a significantly different perspective. Similar to other countries, women in Poland bear the burden of household chores and care work (Polish Statistical Office, 2018). In addition to regular domestic work, the pandemic imposed new obligations, such as homeschooling, on women with children. For female academics, this new obligation made substantial research activity unmanageable.

Well, the effectiveness is worse, yes, because my daughter has Zoom classes. So every hour I have to call her in for a new class. At 10:00, she had her speech therapist, at 10:30 she will have the first online class at the kindergarten, general education. Then they have their Polish language class, so I have to run upstairs to log her in and so on. Writing the book and generally doing research work this semester is definitely less effective. When you take a 5-minute break with students, saying, "Listen, I have to call my daughter to her class, I will get back to you," it doesn't hurt your teaching. Writing a book, however, is different and difficult, because to do that you have to be focused and switched off from everything else. (F3)

When I compare myself to my female colleagues who don't have children and work at the university, they achieve more than I do. (F10)

Women's disproportional responsibility for childcare seriously disturbs their ability to perform those academic activities that count the most toward their performance assessment. The home environment does not offer a level playing field for men and women academics in terms of the ability to stay focused on their pedagogical and intellectual work. Male respondents with school-going children hardly mentioned homeschooling as an obstacle to research. These responses suggest that when it comes to time devoted to academic work, the existing gender inequalities deepened even more during the pandemic.

The second critical factor influencing research productivity during the pandemic is teaching load. Academics who taught more courses stated that the time available for research activities significantly decreased owing to the new way of teaching classes and course preparation.

I don't really have time for scientific work, and I only do the things I need to do. And I put off the rest for later, for an indefinite future. (M2)

Previous studies have shown that female academics have, on average, greater teaching loads than male academics (Barrett & Barrett, 2011; Taylor et al., 2006). Therefore, the increased amount of pedagogical work related to the online teaching transition is likely to further deplete women's time devoted to research, negatively impacting their professional careers.

Participation in conferences was another research activity that impacted male and female academics differently. Due to global lockdown measures, many conferences were canceled or postponed. Some were held as scheduled, but online. Many of our interviewees claimed that the impossibility of attending conferences in person might have consequences for their careers. Interestingly, we found gender differences in the assessment of these consequences.
Female academics stated that the major consequence of canceled or postponed conferences was the lost opportunity to present their own work, receive feedback, and develop their research ideas. Female respondents reported that while at home, they could not fully concentrate on active participation in conferences and workshops held online. Their home duties distracted them from active engagement in discussions and other forms of conference-type academic activity. Some emphasized that the absence of networking opportunities and informal conversations might hinder joint project development.

Every conference provides an opportunity to meet new people (...) it is sometimes a matter of informal discussions during a coffee break, and then something clicks, and you want to do something with this person. (F4)

Meanwhile, men said their networking had been facilitated during the pandemic and they saw it as an opportunity to strengthen their relations with other researchers.

We just talk on Skype or Zoom, and transaction costs of initiating cooperation with people from abroad are much lower. Suddenly the world has shrunk even more. Therefore, I can see here some career opportunities not only for myself, but also for my colleagues. (M4)

For me, the pandemic is a chance. I see it as a huge opportunity. First of all, I can work online from anywhere I want and whenever I want. Getting along with the person is no issue. Barriers break, very often physical ones. (M5)

These responses demonstrate how men and women differ in their perceptions of moving conferences (and, consequentially, networking possibilities) to the online environment. In their responses, men stated that lower costs of online conference participation (e.g., no need for international travel) was as an opportunity to boost their research. Women, on the other hand, focused on the difficulty of creating appropriate conditions for active and fruitful conference participation in the home environment. In general, it seems that the lack of personal and social contact presents a greater burden for the career development of female academics.

5 | DISCUSSION

This study confirms for academia the findings from previous research suggesting that, in times of crisis or disaster, women take on additional household duties (Villarreal & Meyer, 2019), and men’s paid work is prioritized (Morioka, 2014). Male academics perceive their work as not flexible enough to add new obligations, such as their children’s homeschooling. Women academics, meanwhile, said that their work was flexible enough to accommodate homeschooling and household-related duties. As primary caregivers, women sidelined their professional development and cut time spent on work-related activities to take on household responsibilities. To meet their work and home obligations, female respondents with children worked late at night. However, this kind of work organization diminished the ability to perform conceptual and intellectual work necessary for research activities. As one respondent (F3) stated, one cannot write a book and focus on intellectual work when being interrupted and distracted every 5 min. During the pandemic, female academics hit what Ivancheva et al. (2019) terms “care ceiling” (p. 452).

Furthermore, our interviews reveal the invisible work connected with course preparation, syllabus development, examination, and student support in the new online learning and social distancing educational environment. Digitalization and technological innovations have been changing the academic world since the beginning of the 21st century (Rieckhoff et al., 2018). The pandemic has accelerated the process of HEI digitalization and forced the abrupt introduction of digital modes of course delivery. Online teaching is more time and labor intensive in terms of
course development, preparation, and instruction time (Chiasson et al., 2015; Mishra et al., 2020). Our interviewees reported that students working in the online educational environment require more attention, meetings, and technical support. This burden is taken on by academic faculty and labeled “teaching obligations.”

Our study confirms the gendered nature of these obligations. Female respondents spoke more often about supporting their students emotionally, in addition to assisting them with technological matters and those related to the course itself. Male respondents did not notice or respond to such needs. Previous studies have found that students have higher expectations of female faculty regarding nurturing and emotional support (Malisch et al., 2020; Sprague & Massoni, 2005). Students are more likely to turn for help to female academics, who are expected to be warmer, more empathetic, and have greater interpersonal skills (Ashencaen Crabtree & Shiel, 2019). These factors placed additional pressures and added to the workload of female faculty during the pandemic, deepening existing gender inequalities in the division of labor within HEIs.

Yet another insight from our study is that the pandemic has had a different impact on men and women working in HEIs in terms of academic research and knowledge production. Existing research on the impact of COVID-19 on academia shows a decrease in the number of papers submitted and published by female scholars, and an increase in the submission and publication rates for men (Amano-Patiño et al., 2020; Andersen et al., 2020; Woodward et al., 2020). Female scholars in our study stated that in their home environment, they did not have the mental space for conceptual and research work, whereas men were able to prioritize their professional work over home obligations. Regardless of their family situation, the male interviewees reported having more time for research than before the pandemic. Thus, we concluded that the pandemic may further increase the motherhood penalty for women in academia, due to increased responsibilities at home, translating into systemic discrepancies in terms of pay and perceived competence of women with children (Lutter & Schröder, 2020).

Last, our study revealed gender-related differences in attitudes toward the transition of conferences to the online environment during the pandemic. On one hand, women claimed that the lockdown deprived them of networking opportunities. For women, conference participation is an important source of valuable professional contact (Johnson et al., 2017). During the pandemic, as they could not leave the house to attend conferences in person, women were not able to make new contacts. Online conferences that they attended from their homes did not offer them any viable opportunities to engage in networking as women were too distracted by childcare and home duties. Online conferences did not give them the opportunity to concentrate entirely on conference events. On the other hand, for men, the transition to the online mode of conferencing did not adversely affect networking opportunities. Some male scholars interviewed even stated the opposite was true. As conferences are important for developing research and networking, the pandemic may have long-term adverse effects on the development of academic careers of men and women.

In sum, the pandemic has acutely made visible the fact that female academics’ career progression is jeopardized by factors that have nothing to do with their effort, intellectual skill, and merit, but result from women’s primary responsibility for care.

6 CONCLUSION AND RECOMMENDATIONS

The COVID-19 pandemic may be unprecedented as a public health phenomenon, but its reverberations will lead to irreversible changes in the nature of academic work in the postpandemic world. Due to the new virus mutations, in the next years, the demands at home are likely to remain high, especially for parents of school-going children. In addition, the inevitable cut budgets and funding scarcity may cause even more precarity in the postpandemic academic world, enlarging the pressure on academic staff to do more for less.

The insights from this study extend beyond the COVID-19 pandemic and support the process of formulating a more equal and sustainable vision of academic workspaces. Postpandemic, the academic community cannot go back to “the normal,” as it would mean the continuation of an unjust system of academic work (Motta, 2020). In this
system, the ability to undertake research, publish papers, attend conferences, and perform intellectual and pedagogical work has less to do with research capability, skill, and output, and more to do with race, gender, and other systems by which social oppression manifests. To display true commitment to meritocratic values, academia must stop ignoring the lived realities of most academics and address the factors that make it more difficult for some groups to perform academic work than others.

One conclusion from this study is that academia does not have adequate coping mechanisms to deal with the extra burdens and additional workloads that fall on some groups of academics. In times of crisis, the bulk of extra work is placed particularly on women, who bear the brunt of COVID-19-related impacts on the academic work environment. The extent of these negative impacts depends on women's economic situation, race, class, and ethnicity. HEI administrations and the academic community should develop and implement specific programs to address the gendered division of academic labor and mitigate the negative effects of the extra work that falls on women. HEIs could, for example, reduce the pressure to be productive by implementing tenure extension policies. We further advocate that the relative productivity of academics during the pandemic should not be compared, as COVID-19 has had an unequal effect on faculty by gender, class, ethnicity, family, and economic situation.

This study further recommends that HEIs should recognize and value the gendered and invisible work of academics, such as emotional support of students and care work. This would help to level the playing field for male and female academics. Academia needs to develop a system of documenting and reporting such work by faculty.

Following Gonzales and Griffin's (2020) recommendations, we also advocate a rethink of current promotion and tenure criteria. This study shows how much the lines between the professional and private lives of academics are blurred. Alternative models for professional success are needed, as existing ones are culturally embedded in work–life separation. Reimagining academia in a postpandemic world should involve re-framing the relationship between the worlds of care and academic work. For example, care-sensitive academic evaluations could be used to attend to different engagements in the care duties of academic staff (Herschberg et al., 2018).

COVID-19 pandemic has been an unprecedented event that took away millions of lives and did enormous damage to the academic community. If there is any good that can come out of this event, it is to restructure academia so that it becomes a work environment where the success and opportunity depend not on one's gender, class, type of academic contract but skills, effort, and merit.

DATA AVAILABILITY STATEMENT
Research data are not shared.

ORCID
Anna Maria Górska https://orcid.org/0000-0003-3406-5454

ENDNOTES
1 The limited studies that explore the situation of women academics include Fuszara (2006), Młodożeniec and Knapińska (2013), Popiński (2019), and Siemieńska (2019). They focus on presenting statistical data about the representation of women and do not analyze gender and power relations underlying unequal statistics.
2 The level of motherhood penalty is illustrated by Bomert and Leinfellner (2017), who report that 75% of female research fellows and 62% of female professors in Germany were childless in 2006. Female research fellows and professors were more likely to remain childless than their male colleagues throughout their careers, while 62% of female professors versus 33% of male professors had no children.
3 The ideal academic model may be different for different academic disciplines, positions (e.g., tenured faculty, postdoctoral, and project-based positions), type of work contract, and career stage (Herschberg et al., 2018).

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**AUTHOR BIOGRAPHIES**

**Anna Górska**, PhD, is an Assistant Professor at Kozminski University and the Director of Women and Diversity in Organizations Research Center. Anna Górska specializes in gender and diversity in organizations and higher education institutions.

**Karolina Kulicka**, PhD, is an independent scholar who currently works as a civil servant in Poland. She received her PhD degree in global gender studies from the State University of New York at Buffalo. Her research focuses on gender and public policy.

**Zuzanna Staniszewska** is a first-year PhD student in Management & Quality Science and an early stage researcher. She is a graduate of Kozminski University and a member of the Women and Diversity in Organizations Research Center.

**Prof. Dorota Dobija**, PhD, is a professor of accounting and management at Kozminski University, Poland. She is particularly interested in topics at the intersection of corporate governance, accounting and auditing, public sector management and accounting, and gender issues in management.

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## APPENDIX 1  Participants data

| Code (F—female, M—male) | Children       | Research intensive | Position                              |
|-------------------------|----------------|--------------------|---------------------------------------|
| F1                      | Yes (teenage)  | Yes                | Professor                             |
| F2                      | Yes            | Yes                | Associate professor                   |
| F3                      | Yes            | No                 | Assistant professor                   |
| F4                      | No             | Yes                | Associate professor                   |
| F5                      | No             | Yes                | Associate professor                   |
| F6                      | No             | No                 | Associate professor                   |
| F7                      | Yes (teenage)  | Yes                | Associate professor                   |
| F8                      | No             | Yes                | Assistant professor                   |
| F9                      | Yes            | No                 | Research and teaching assistant       |
| F10                     | Yes            | No                 | Assistant professor                   |
| F11                     | Yes (adult)    | Yes                | Assistant professor                   |
| F12                     | Yes            | No                 | Assistant professor                   |
| F13                     | No             | Yes                | Assistant professor                   |
| F14                     | No             | No                 | Research and teaching assistant       |
| F15                     | Yes            | No                 | Assistant professor                   |
| M2                      | Yes            | Yes                | Assistant professor                   |
| M3                      | Yes            | Yes                | Associate professor                   |
| M4                      | Yes            | Yes                | Associate professor                   |
| M5                      | Yes            | Yes                | Assistant professor                   |
| M6                      | Yes            | Yes                | Professor                             |
| M7                      | No             | No                 | Assistant professor                   |
| M8                      | Yes            | Yes                | Associate professor                   |
| M9                      | Yes            | No                 | Assistant professor                   |
| M10                     | Yes            | Yes                | Assistant professor                   |
| M11                     | No             | Yes                | Assistant professor                   |
| M12                     | Yes            | Yes                | Assistant professor                   |
| M13                     | Yes            | Yes                | Assistant professor                   |