#### COMMENTARY

# Gender differences in tenure-track faculty time spent on childcare

Tammy D. Allen<sup>1</sup>\*<sup>(D)</sup>, Michelle Hughes Miller<sup>2</sup>, Kimberly A. French<sup>3</sup>, Eunsook Kim<sup>4</sup>, and Grisselle Centeno<sup>5</sup>

<sup>1</sup>University of South Florida, Department of Psychology, Tampa, FL, USA, <sup>2</sup>University of South Florida, Department of Women's and Gender Studies, Tampa, FL, USA, <sup>3</sup>Georgia Institute of Technology, Department of Psychology, Atlanta, GA, USA, <sup>4</sup>University of South Florida, Department of Educational Measurement and Research, Tampa, FL, USA and <sup>5</sup>Florida Southern College, Barney Barnett School of Business and Free Enterprise, Lakeland, FL, USA \*Corresponding author. Email: tallen@mail.usf.edu

Gabriel et al. (in press) make the case that more needs to be done within academia to support the caregiving demands of women faculty. They state their focus is on women faculty because women carry a disproportionate amount of the caregiving load relative to men. We echo their call and reinforce the need for it by examining the number of hours women faculty spend on childcare and the extent that the number of hours differs across men and women faculty. It is well established that women spend more time on childcare than do men (Shockley & Shen, 2016). However, research focused on faculty time spent on childcare is rare. In an exception, based on data from a single university, Misra et al., (2012) reported a significant gender difference in time spent on childcare compared to men who reported 10.35 hours a week.

In this commentary, we expand on findings cited by Gabriel et al., (in press). Specifically, we show mean gender differences in faculty time spent on childcare before and after controlling for various organizational and family structural features. In doing so, we aim to underscore the number of childcare hours women faculty contribute, as well as the stark differences in childcare labor faced by men and women faculty across context and family structure.

#### Method

#### Participants and procedure

Participants were 783 tenured or tenure-track faculty members employed at 11 public universities in a southeastern state. Two participants had been removed during screening. Because a focus of the current study was on gender differences one participant who self-identified as 'other' with regard to gender was removed from the quantitative analyses. The second removed participant self-reported an age of 110. We limited the sample to tenured and tenure-track Assistant (n = 218; 27.8%), Associate (n = 282; 36%), and Full (n = 283; 36.1%) faculty to enhance comparability in job expectations and norms. A total of 448 (57.2%) participants self-identified as male and 335 (42.8%) as female. Average participant age was 49.46 (SD = 11.59). With regard to race, the majority identified as White/Caucasian (n = 632; 80.7%), Black/Afro-Caribbean/African American (n = 41; 5.2%), Asian/Pacific Islander (n = 47; 6%), Hispanic/Latino (n = 12;1.5%), other (n = 42; 5.4%), and no response (n = 9; 1.1%). For temporal context, data were collected prior to COVID-19.

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# Measures

#### Time spent on childcare

Participants reported the number of hours spent on average each week engaged in childcare, which was described as "meeting the needs of or spending time with children and teenagers under the age of 18" (Misra et al., 2012).

# Gender

Participants self-identified their gender, which for the current study was coded as man or woman.

# Academic rank

Participants provided their academic rank coded as Assistant, Associate, or Full.

# Discipline type

We classified faculty discipline into two groups, STEM or nonSTEM based on faculty self-reports of their department and the National Science Foundation classification system (Gonzalez & Kuenzi, 2012).

# Institution type

We used the Carnegie Classification of Institutions of Higher Education (http:// carnegieclassifications.iu.edu/classification\_descriptions/basic.php) to create two groupings, higher and lower research expectations. Five of our 11 universities were Carnegie classified as R1 doctoral universities with very high research activity and were grouped into the higher research intensity category. The remaining six universities represented a mix of other Carnegie classifications and were grouped into the lower research intensity category.

# Parental status

Participants were asked if they had any children that live at home. Response options were no and yes.

#### Marital status

Participants indicated if they were single or if they were living with partner/married.

# Partner work status and number of hours worked

Participants who were married indicated if their partner worked for pay (coded as no or yes). Those who indicated yes were also asked to indicate the number of hours the partner worked (based on 16 ranked ordered categories that ranged from 1 to 9 hours to 100+ hours a week). Number of hours worked was treated as an ordinal continuous variable.

# Results

We first conducted an independent samples t-tests across the entire sample to determine the number of hours spent on childcare and if a gender difference in time spent existed unadjusted for other factors. The mean across all participants was 12.92 (SD = 18.99). Women faculty reported engaging in more childcare than did men faculty (t (781) = -3.20, p < .001) (women M = 15.41, men M = 11.05).

To help rule out alternative explanations for gender differences in time spent on childcare, our next series of analyzed examined gender differences after inclusion of control variables. To first see if organizational factors mattered, we controlled for academic rank, discipline, and institution. Analysis of covariance (ANCOVA) results indicated a significant effect remained for gender (F(1, 611) = 3.72, p < .01) (women M = 14.27, men M = 11.34). These findings indicate that across our faculty sample, after controlling for key work structure factors, women faculty report more time devoted to childcare than did men faculty.

To get a better sense of the childcare demands of those with children at home, we next limited our sample to faculty who reported that they had dependent children living at home (n = 338) while again controlling for rank, discipline, and institution. Results indicated a significant gender effect (F(1, 256) = 15.44, p < .01) (women M = 32.22, men M = 23.42). As would be expected when limiting the sample to those with dependent children at home, the mean number of weekly dependent care hours for both men and women was greater than when analyzing the entire sample.

Because men and women faculty may differ in terms of family structure (i.e., dual-earner couple vs. single-earner couple), we next conducted a series of analyses in which we successively added family-related controls. After adding marital status as an additional covariate a significant gender effect remained (F(1, 255) = 19.23, p < .01) (women M = 32.89, men M = 23.00). We next added if the partner worked for pay as a covariate. The significant effect for gender remained (F(1, 237) = 16.26, p < .01) (women M = 33.29, men M = 23.87). Finally, we added the number of weekly hours worked by the spouse (based on 16 ranked ordered categories that ranged from 1–9 hours to 100+ hours) as an additional covariate. The gender difference remained significant (F(1, 175) = 17.48, p < .01) (women M = 35.79, men M = 25.00).

#### Discussion

Our analyses demonstrate that women faculty devote a substantial amount of time to childcare and significantly more time to childcare than do men faculty regardless of work context, marital status, and partner paid work status and hours. Across all faculty, women reported spending about four more hours a week on childcare than did men. This finding is similar to that reported by Misra et al. (2012) who found women faculty spend about five more hours a week on childcare than do men faculty. This suggests that overall, there has not been much change in the gender distribution of dependent care. Importantly, we observe that when considering only faculty with at least one child under 18 at home, the mean difference is considerably more. Women faculty report spending about 10 more hours per week on childcare than do men faculty. This difference held after considering organizational and family structure variables.

Women faculty with a child under the age of 18 at home reported spending 32–35 hours a week on childcare. Our finding that women faculty spend significantly more time engaged in childcare than men faculty and that the number of hours reflect essentially a second job is consistent with the notion that employed mothers face a double day of work, in that after returning home from a day of paid work they begin their second shift of unpaid work that includes childcare (Hochschild, 1989). Gendered childcare hours are important in that women faculty are more likely to report leaving academia for family-related reasons than are men faculty (Martinez et al., 2017). Moreover, research shows that new mothers are more likely than new fathers to leave STEM careers (Cech & Blair-Loy, 2019).

We note several limitation and boundary conditions to the present data. The data are based on self-report and are therefore vulnerable to response bias. The similarity in the data to that of past research helps lend support as to their reliability. Our analyses were limited to faculty in tenure-track positions. Thus, we cannot be certain the extent that they generalize to other academic positions (e.g., non-tenure track instructor positions). Tammy D. Allen et al.

Academic work has been referred to as an elite occupation with time demands that conflict with parenting, especially for women (Minnotte, 2021). We hope that presenting these statistics concerning the number of hours spent on childcare and the differences between men and women faculty in this regard serve to further strengthen and reenforce the case made by Gabriel et al., (in press).

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