

Caring for the Caregiver: Work Mistreatment and Well-Being Among Early Childhood Education Staff in Colorado

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Abstract

Experiences of workplace mistreatment are associated with poor physical and mental health outcomes. Workplace mistreatment among early childhood education workers is underexplored in the United States. The National Institute for Occupational Safety and Health's Worker Well-Being Questionnaire was used to assess the extent and types of workplace mistreatment among 332 early childhood education staff in 42 Head Start centers in Colorado. The authors assessed seven forms of mistreatment, sociodemographic differences in mistreatment, poor mental health days, and the relationship between experiences of mistreatment and mental health. Condescending or demeaning treatment was the most common form of workplace mistreatment (24%) and 15% of respondents reported two or more types of mistreatment. The mean number of self-reported poor mental health days per month was 7.44 days (SD \pm 8.51). Younger workers aged 18–29 and 30–44 years reported significantly more poor mental health days than older workers (8.0 and 8.9 vs. 5.6, p < .05). A greater number of different types of workplace mistreatment was positively associated with poor mental health days, controlling for sociodemographic covariates (β =0.14, p < .05). These findings suggest a need for organizational-level change and additional support structures to help early childhood education workers to thrive, thus ensuring quality education for children in the United States.

Keywords Early childhood education workers · Worker wellbeing/well-being · Mental health · Discrimination · Mistreatment

Background

For early childhood educators to provide high quality education to young children, they themselves need to thrive (Cumming, 2017; Cumming et al., 2021; McFarland, 2022; Ylitapio-Mäntylä et al., 2012). The demands of the early childhood educator and other early childhood education (ECE) staff are significant. ECE environments can be highly stressful and physically and emotionally exhausting given

low retention of staff (Jones et al., 2020). When educators' and support staff's mental health and well-being is compromised, there are negative impacts on children's learning and their overall experiences (Mcmullen et al., 2020). Educators and staff working in low-resourced ECE settings have even greater job demands. For example, a recent study found that ECE professionals at Head Start centers experience greater rates of depression and job stress than others in the ECE

workforce (Farewell et al., 2022).

Social determinants of health, including socioeconomic status, contribute to poor mental health among ECE workers. The hourly wage of ECE workers has been associated with mental well-being (Otten et al., 2019) and household income is considered an important social determinant of both physical and mental health (Braveman et al., 2011; Sareen et al., 2011, Shields-Zeeman and Smit, 2022). Race and ethnicity are also important factors that influence health

the demands of parents, children, and regulatory bodies (Jeon et al., 2018). Given these demands, ECE workers often

report poor mental health (Otten et al., 2019). Challenges to

well-being in this environment include stress, burnout, and

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and well-being (Braveman et al., 2011; Breslau et al., 2006; McKnight-Eily et al., 2020). Finally, a person's age is also a factor in the relationship between work and mental health (de Lange et al., 2006). Given the close connection between educators' well-being and the quality of children's educational experiences, it is important to understand the mental well-being of ECE workers of various sociodemographic backgrounds, and to characterize the organizational factors that may influence well-being for different groups of workers (Stein et al., 2022). Early learning leaders, researchers, and supporters can use this knowledge to develop initiatives to help educators and other staff to flourish.

There were approximately 483,100 early childhood educators in the United States in 2021 (Department of Labor). In May 2021, the median annual wage for preschool teachers was \$30,210, significantly lower than the average U.S. worker (\$45,760) (Department of Labor). The ECE workforce is comprised mostly of women, 40% of whom are people of color, making this educational subsector the most racially diverse of any educational sector (Taie & Goldring, 2017). The number of early childhood educators are expected to grow by 15% during 2021–2031, a rate much faster than other occupations. Approximately 63,100 openings are expected each year to replace workers who leave the profession for another position or to exit the labor force (Department of Labor).

Given the amount of time full-time employees spend in the workplace, it is not surprising that workplace characteristics significantly impact worker well-being (Farewell et al., 2022). Environmental and organizational factors that are directly connected to employee health outcomes include the individual's physical working conditions, work hours and schedule, safety and exposure hazards, organizational policies and climate, the quality of interpersonal communication between supervisors and coworkers, and governmental regulations protecting the safety and health of workers (Schulte et al., 2019; Sorensen et al., 2018, 2021).

Experiences of mistreatment at work are associated with both poor mental and physical health outcomes for workers and may include discrimination, bullying, demeaning treatment, sexual harassment, and physical violence (Jahnke et al., 2019; Jemal et al., 2019; Oh, 2021; Okechukwu et al., 2014). Bullying and harassment have significant mental health consequences for educators (De, 2014) and the interactions between educators and children (Aboagye et al., 2021). A recent study of early childhood educators in Australia found that one-quarter of educators experienced workplace bullying (McFarland et al., 2022). The majority of bullying was perpetrated by coworkers in this study, adding to evidence that peer to peer bullying (i.e., horizontal violence) is common in ECE settings (Hard, 2006). In addition, almost 7% of educators were exposed to threats of physical violence (McFarland et al., 2022). Another Australian report found that workplace bullying was experienced by all types of ECE staff, not just educators (Ludlow, 2021). Bullying incidents reported by ECE workers include being belittled by parents, harassed on social media, and being unfairly treated by leadership through unjustified actions and exclusionary practices (Brooker & Cumming, 2019, Morgan, 2019). Many workplace factors are associated with less bullying, including positive teamwork and supervisor interactions, lower work-related stress, and the ability to influence workplace decisions (McFarland et al., 2022).

There are limited reports on the prevalence of workplace discrimination in ECE settings, but one study found substantial discrimination in ECE provider hiring practices of Black and Hispanic childcare educators (Boyd-Swan & Herbst, 2019). The literature on a wide array of workplaces indicates a high prevalence of workplace discrimination for people of color, older workers, and gender and sexual orientation minorities (Boyd-Swan & Herbst, 2019; Del Carmen Triana et al., 2015; Dhanani et al., 2018).

Experiences of mistreatment, including bullying and discrimination, can affect health through the triggering of physiological stress systems. If the experience occurs repeatedly for sustained periods, the overuse of physiological stress systems can lead to physical and mental health effects (Pascoe et al., 2022). In the ECE workplace, bullying can lead to emotional trauma and negatively affect organizational culture (Ludlow, 2021). The health impacts resulting from experiences of discrimination and other forms of mistreatment, such as bullying and harassment, are also costly for employers due to reduced productivity, decreased morale, and increased health care costs (Cumming et al., 2021).

Physical health outcomes associated with workplace discrimination and harassment include poor sleep, alcohol abuse, gastrointestinal disorders, and poor overall self-reported general health (Morgan, 2019). The health impacts are also costly for employers due to reduced productivity, decreased morale, and increased health care costs (Cumming et al., 2021).

There is limited literature on experiences of mistreatment among ECE workers and resulting impacts on physical and mental health outcomes in the United States. A new validated worker well-being questionnaire that included a set of questions about work mistreatment (physical violence, sexual harassment, being discriminated against, bullied, or treated in a demeaning manner) provided an opportunity to explore mistreatment among a U.S. ECE workforce (National Institute for Occupational Safety & Health, 2021). This study builds on the existing literature and addresses a number of research gaps. First, it assesses the prevalence of multiple forms of mistreatment among ECE workers in a low-resourced ECE setting where over 90% of Head Start families live in poverty (Farewell et al., 2022). Second, it examines the cumulative impact of multiple forms



of mistreatment on mental health for workers. Third, it responds to a call by Stein et al. (2022) for greater examination of ECE worker well-being among non-White workers through an examination of differences in mistreatment and mental health status. Fourth, it includes the experience of ECE staff beyond educators. A large number of workers serve in supporting roles at ECE centers, and the experiences of these workers, including paraprofessionals, janitors, and counselors, are equally important (Farewell et al., 2022).

The primary aims of this study were to (1) determine the frequency of mistreatment at work for a group of early childhood education staff working in a variety of roles at Colorado Head Start centers (free, federally-funded early education program for low-income children); (2) examine differences in mistreatment by sociodemographic factors, including household income, age group, race, ethnicity, and educational status; (3) determine the frequency of self-reported poor mental health days for staff and differences by sociodemographic factors; and (4) assess the relationship between the total number of experiences of work mistreatment and the frequency of poor mental health days reported by ECE staff.

Methods

Procedures and Participants

The National Institute for Occupational Safety and Health Worker Well-Being Questionnaire (WellBQ) (Chari et al., 2022) was administered in the Fall of 2021 to staff from five Head Start agencies working in 42 centers in the Denver metropolitan area and southeast Colorado (Chari et al., 2022; NIOSH, 2021). Between November 2021 and January 2022, the study consent and survey were administered via Research Electronic Data Capture (REDCap) hosted at the University of Colorado, Anschutz Medical Campus (Harris et al., 2009). REDCap is a secure, web-based application designed to support data capture for research studies. Individualized electronic links were distributed to all staff employed at the five partner agencies. Participants reviewed the informed consent form describing the purpose of the study, criteria for participation, confidentiality measures, incentive details, and contact information for the investigators. Agreement to participate was confirmed by electronically signing and clicking on a "Continue" button that directed users to the survey. Up to three reminders were sent every five days to participants who had yet to complete the survey. After completing the 20 min survey, \$20 electronic gift card incentives were distributed within 3 weeks. All procedures were approved by the Colorado Multiple Institutional Review Board.

Data Instrument

The WellBQ questionnaire contains 89-items and has been validated using extensive psychometric tests and other methods (Chari et al., 2022). The survey is composed of five domains to measure worker well-being in a holistic manner. Seven questions about workplace mistreatment from the third domain, 'Workplace Physical Environment and Safety Climate', were selected for this study. Of the seven questions, three questions about discrimination were included: "I feel discriminated against in my job because of my age", "I feel discriminated against in my job because of my gender", and "I feel discriminated against because of my race or ethnic origin." Responses for all three discrimination questions were measured on a Likert scale (1. Strongly disagree, 2. Somewhat disagree, 3. Somewhat agree, 4. Strongly agree). One question about work-related sexual harassment was included: "In the past 12 months, were you sexually harassed by anyone while you were on the job?" (Yes or No). One question about physical violence was included: "In the past 12 months, were you exposed to physical violence while you were on the job?" (Yes or No). Two questions about work-related bullying were asked: "In the past 12 months, were you bullied, threatened, or harassed in any other way by anyone while you were on the job?" and "In the past 12 months, have you been in a situation where any of your superiors or coworkers put you down or were condescending to you, made demeaning remarks about you, or addressed you in unprofessional terms?" Response options for bullying questions were also binary (Yes or No).

Four sociodemographic variables were included in our analyses: household income, age group, ethnicity, and educational status. Total household income was evaluated via eight categories (<\$20,000, \$20,000-34,999, \$35,000-49,999, \$50,000-74,999, \$75,000-99,999, \$100,000–149,999, \$150–199,999, and \$200,000 or more). Age was assessed as a categorical variable (18-29 [reference group], 30-44, 45-64, and 65 and older). Ethnicity was assessed dichotomously (non-Latino [reference group], Latino) in alignment with recent guidance on reporting of ethnicity in science journals (Flanagin et al., 2021). Education was assessed categorically (less than high school, high school/GED, some college, bachelor's degree or higher). Neither gender nor race variables were used in bivariate or multivariate analysis due to a small number of male and non-White respondents, limiting the ability to detect differences between groups.

The outcome variable of interest for this analysis was the number of poor mental health days in the past month, evaluated by the following question: "Now, thinking about your mental health, which includes stress, depression, anxiety, and problems with emotions, during the past 30 days, for how many days was your mental health not good?". The



response was open-ended with instructions to "enter number of days (0-30)".

Data Analysis

For analyses, discrimination questions were converted from a Likert scale into a dichotomous variable, in which respondents who answered "strongly agree" or "somewhat agree" to questions about discrimination were categorized as having experienced that type of discrimination (Yes/No). There was no further modification of mistreatment question responses, as responses were dichotomous (Yes (1)/No (0)). Household income was dichotomized into two similarly-sized groups: respondents with total household income of \$50,000 or greater in one group (reference group) and respondents with total household incomes less than \$50,000 in the other group. The authors combined the two oldest age groups (45–64 years and 65 years and older) due to small sample size for bivariate and multivariate analysis. The authors also combined educational status responses into a dichotomous variable (college degree [reference group] or no college degree) due to small sample sizes.

The primary independent variable was a composite variable reflecting the sum of the total number of affirmative responses to the six questions about work mistreatment: (1) age discrimination, (2) race/ethnicity discrimination, (3) gender discrimination, (4) being bullied or harassed, (5) being treated in a demeaning or condescending manner, and (6) physical violence. The question about sexual harassment was not included in the total mistreatment variable due to a low number of affirmative responses. Thus, the possible value for this sum variable for each respondent ranged from 0 to 6.

The frequency of respondents who experienced each type of mistreatment was calculated as well as the frequency by household income, age group, ethnicity, and educational status. Chi-square and ANOVA analyses were run to test for significant differences between groups in the proportions of each type of mistreatment. Mean values and standard deviations were calculated overall and by the four sociodemographic characteristics for the independent variable of interest (total mistreatment) and the outcome variable (poor mental health days in the past month). Independent samples t-tests were conducted to compare the difference in means for total mistreatment and poor mental health days.

A hierarchical multiple linear regression model was run. Model 1 included the four covariates (household income, age group, ethnicity, and educational status) predicting the number of poor mental health days for respondents. Household income was retained as a continuous variable for all models. The total mistreatment variable was added to Model 2 to determine the additional variance in poor mental health days explained beyond covariates. Analyses were run in IBM

SPSS Statistics version 28.0 (IBM Corp, 2021). For each multiple linear regression model, all statistical assumptions were met. Missing, refused, and don't know responses for all variables were excluded from analyses. All variables had less than 10% missing values.

Results

Sociodemographic Characteristics of Respondents

There were 332 overall respondents. Among those who reported their sex, 93% (n=284) were female (Table 1). The largest proportion of staff who reported age was 30–44 years of age (n=118, 39%). Close to half of respondents (45%) self-identified as Latino ethnicity (n=137). The largest proportion of staff self-identified as White (n=229, 69%) and 7% self-identified as Black/African American (n=24). Over half of respondents' total household income was less than \$50,000 per year (n=159, 53%). The majority of respondents completed a college degree or higher (n=168, 55%). Almost half of respondents worked in the classroom, either as a lead teacher (n=78, 24%) or as an assistant teacher/classroom aide/para-professional (n=77, 23.2%).

Frequency of Mistreatment at Work

Respondents reported experiencing discrimination related to age (8.9%), race or ethnic origin (9.5%), and gender (6.3%). Participants also reported experiencing physical violence (4.6%), sexual harassment (0.9%, not shown in table), bullying (bullying, harassment, threatening behavior) (7.3%), and condescending or demeaning treatment from colleagues or superiors (24.0%). Fifteen percent (14.8%) of respondents experienced two or more types of mistreatment (not shown in table). The mean total mistreatment for respondents was $0.6 \text{ (SD} \pm 1.0)$ (Table 2).

Differences in Mistreatment at Work by Sociodemographic Characteristics

ANOVAs were run to assess differences between household income, age, ethnicity, and education on total mistreatment and the number of poor mental health days. A higher proportion of the 18–29 age group experienced age discrimination as compared to older age groups (19.1% vs. 5.9% for 30–44 years and 6.0% for 45 + years, p < 0.01) Respondents in the youngest age group were also more likely to report experiencing physical violence and bullying or demeaning treatment than the older age groups, though this relationship was not statistically significant. No significant differences for work mistreatment were found between groups based on household income, ethnicity, nor education.



 Table 1
 Sociodemographic characteristics of head start staff respondents

Demographic overview	n=332 ^a	% ^a
Sex		
Female	284	93.4
Male	20	6.6
Age group		
18–29	70	22.9
30–44	118	38.6
45–64	105	34.3
65 and older	13	4.2
Ethnicity		
Latino	137	45.4
Not Latino	165	54.6
Race		
White	229	69.0
Black/African American	24	7.2
American Indian	6	1.8
Asian	6	1.8
Two or more races	8	2.4
Other	31	9.3
Total household income		
<\$20,000	22	7.3
\$20,000-\$34,999	65	21.7
\$35,000-\$49,999	72	24.0
\$50,000-\$74,999	54	18.0
\$75,000-\$99,999	38	12.7
\$100,000-\$149,999	32	10.7
\$150,000-\$199.999	12	4.0
\$200,000 or more	5	1.7*
Education		
High school/GED	21	6.9
Some college	117	38.2
Bachelors degree or higher	168	54.9
Staff role		
Lead teacher	78	23.5
Assistant teacher or classroom aide	77	23.2
Family service worker/support team	36	10.8
Facilities (e.g. cook, bus driver, custodian, maintenance)	22	6.6
Administrator, director, center/content manager	22	6.6
Education supervisor/coordinator	15	4.5
Mental health worker, nurse, health/nutrition services	14	4.1
Other	23	6.9

^aMissing responses were removed from the percent calculations

Poor Mental Health Days

The mean number of days of poor mental health was 7.4 days ($SD \pm 8.5$) (Table 2). There was a significant difference between age groups in the average number of poor

mental health days experienced by educators in this sample. In the 30 days preceding the survey, staff aged 18-29 years experienced an average of 8.0 days of poor mental health, as compared to staff 30-44 years (8.9 days) and 45 years and older (5.6 days) (p=0.01). There were no significant differences in poor mental health days based on household income, ethnicity, or educational status.

Association Between Cumulative Mistreatment at Work and Poor Mental Health Days

Table 3 displays results from the linear regression model. Model 1 with the four sociodemographic variables explained 4.3% of the variance in the number of poor mental health days (p=0.04). Model 2 included the same covariates plus total mistreatment and explained a slightly higher variance in poor mental health days (R-square=0.06, p=0.01). None of the sociodemographic variables were significantly associated with poor mental health days in either model. Total mistreatment was significantly associated with poor mental health days after controlling for all other variables (β =0.14, p<0.03).

Discussion

This study is the first to characterize experiences of several types of workplace mistreatment among ECE staff in a low-resourced ECE setting in the U.S. It is among the first to examine the relationship between ECE staff mistreatment experiences and self-reported mental health. This study also adds to the current knowledge base by linking a greater number of experiences of mistreatment to a greater number of poor mental health days for ECE staff.

A number of factors point to the critical need for ECE leadership and organizations alike to implement workplace mistreatment prevention measures in ECE settings: the expected growth in educators over the next decade, the reported prevalence of mistreatment experiences, the substantial number of poor mental health days reported by ECE staff, and the relationship between mistreatment and poor mental health for ECE staff. Poor mental health of ECE staff is also likely to impact the quality of care provided to students (Cumming, 2017; Cumming et al., 2021; McFarland, 2022).

Condescending or Demeaning Treatment and Bullying

The most common type of workplace mistreatment reported was condescending or demeaning treatment by colleagues or superiors. Approximately one in four ECE staff reported this type of treatment in the past 12 months.



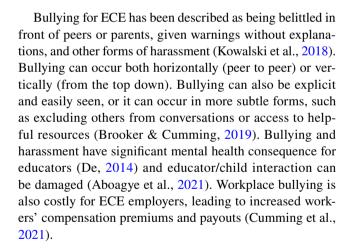
Table 2 Prevalence of work mistreatment and poor mental health days by household income, age group, ethnicity, and education

	Discrimination based on:			Physical violence	Bullied, harassed, or threatened	Condescending or demeaning treat- ment (by colleague or superior)	Total mistreatment	Number of poor mental health days in past month	
	Age %	Race %	Gender %	%	%	%	Mean and SD	Mean and SD	
Total	8.9	9.5	6.3	4.6	7.3	23.8	0.6 SD±1.0	$7.4 \text{SD} \pm 8.5$	
Household income									
\$50 K or more	9.2	9.9	7.9	2.8	4.4	22.0	$0.6 \text{ SD} \pm .9$	$7.2 \text{ SD} \pm 8.5$	
<\$50 K	9.0	9.5	5.1	6.9	9.0	23.6	$0.6 \text{ SD} \pm 1.0$	$7.7 \text{ SD} \pm 8.6$	
χ^2	0.0	0.0	1.0	2.6	2.5	0.1	1.1	.02	
Age group									
18–29	19.1	4.3	5.7	7.1	8.8	27.5	$0.7 \text{ SD} \pm 1.0$	$8.0 \text{ SD} \pm 8.2$	
30-44	5.9	12.7	5.9	5.1	6.8	23.7	$0.6 \text{ SD} \pm 1.0$	$8.9 \text{ SD} \pm 9.6$	
45+	6.0	9.4	6.9	3.4	5.3	18.8	$0.4~\mathrm{SD} \pm .8$	$5.6 \text{ SD} \pm 7.1$	
F value	5.8*	1.8	0.1	0.7	0.4	0.1	2.0	4.5*	
Ethnicity									
Not Latino	11.0	7.3	5.5	6.1	5.6	22.4	$0.5 \text{ SD} \pm .9$	$7.7 \text{ SD} \pm 8.3$	
Latino	5.9	11.7	7.4	3.6	8.1	22.8	$0.5 \text{ SD} \pm 1.0$	$7.0 \text{ SD} \pm 8.6$	
χ^2	2.5	1.7	0.4	0.9	0.7	0.0	0.1	.7	
Education									
College degree	11.4	9.6	6.6	5.4	6.2	22.8	$0.6 \text{ SD} \pm 1.0$	$8.0~\mathrm{SD} \pm 8.6$	
No college degree	5.8	9.4	5.8	4.3	7.4	22.6	$0.5 \text{ SD} \pm .9$	$6.8~\mathrm{SD} \pm 8.3$	
χ2	2.9	0.0	0.1	0.2	0.2	0.0	.5	1.2	

Statistically significant differences at p<.05 are bolded, *p<.05, **p<.01

A search of the literature did not identify other estimates of this type of mistreatment in ECE settings; however, ECE well-being has been linked to relationships with colleagues and parents (Nislin et al., 2016). The biggest source of workplace stress for ECE has been reported to be interaction with students' parents, which was not specifically assessed in this study. Nislin et al. (2016) also found that educator well-being was impacted most frequently by the relationships with colleagues and described this importance to be due to the strong need for teamwork in the ECE educational setting. Strained collegial relationships in ECE settings has also been linked to burnout, characterized by emotional exhaustion and negative attitudes towards self and others (Rentzou, 2012).

A closely related question, "In the past 12 months, were you bullied, threatened, or harassed in any other way by anyone while you were on the job" was reported much less frequently (7.3%). A 2022 report of ECE professionals in Australia found that 24.6% of respondents experienced workplace bullying and that 6.8% of respondents were "exposed to threats of physical violence" (McFarland et al., 2022). Most bullying in the Australian study was perpetrated by co-workers. While the Australian study used a similar workforce, the authors used a different set of questions to measure workplace bullying, making comparisons of this study's results with the Australian results challenging.



Racial and Ethnic Discrimination

Approximately 1 in 10 ECE staff reported discrimination based on race or ethnicity at work in this study. A slightly greater proportion of Latino respondents experienced discrimination compared to non-Latino respondents (11.7% vs. 7.3%), however this difference was not statistically significant. Experiences and health effects of racial discrimination in occupational settings is generally greater for women and underserved minority groups (Del Carmen Triana et al., 2015). Significant racial discrimination has been reported



Table 3 Hierarchical linear regression predicting number of poor mental health days in past month

	Number of poor mental health days in past month						
	R-square	β	SE	t-statistic	p-value		
Model 1	.04				.04		
Constant			1.83	5.51	<.00		
Household income							
\$50 K or greater	_	_	_	_	_		
<\$50 K		07	.34	-1.01	.31		
Ethnicity							
Non-Latino	_	_		_	_		
Latino		02	1.10	34	.73		
Age							
18-29 years	_	_	_	_	_		
30-44 years		.07	1.37	.91	.37		
45+ years		12	1.41	- 1.55	.12		
Education							
College degree	_	_	_	_	_		
No college degree		10	1.16	-1.46	.15		
Model 2	.06				.01		
Constant			1.85	5.02	<.00		
Household income							
\$50 K or greater	_	_	_	-	-		
<\$50 K		07	.34	- 1.01	.31		
Ethnicity							
Not Latino	_	_	-	_	_		
Latino		02	1.10	38	.70		
Age group							
18-29 years	_	_	-	_	_		
30-44 years		.07	1.36	.91	.37		
45+ years		11	1.40	-1.38	.17		
Education							
College degree	_	_	_	_	_		
No college degree		09	1.15	- 1.39	.167		
Total mistreatment ^a		.14	.55	2.25	.03		

Statistically significant p-values (<.05) are bolded

^aSum of reported work mistreatment types: Age discrimination, race discrimination, gender discrimination, physical violence, bullying or threatening and condescending or demeaning treatment by colleague or superior

among Black health professionals, including physicians, mental health professionals, and hospital staff (Filut et al., 2020; Jemal et al., 2019; Smith et al., 2022).

No other studies have reported the prevalence of racial or ethnic discrimination among U.S. ECE workers; however, qualitative work completed by Cheruvu et al. (2015) found that pre-service early childhood educators of color did not have supportive or positive experiences in their ECE training programs. Being treated as different reportedly undermines educators' confidence and causes significant distress

(Hard, 2006). The lack of significant differences between Latino and non-Latino respondents in this sample may be due in part to the experiences of racial discrimination by non-Latino respondents of color (Black, American Indian, Asian). Racial and ethnic discrimination at work has consequences for the victim (Raver & Nishii, 2010) and is negatively associated with physical and mental health, job attitudes, and organizational citizenship behavior (Del Carmen Triana et al., 2015).

Age Discrimination

This analysis found that workers 18-29 years of age experienced age discrimination three times more frequently than older workers (p < 0.05). This finding is surprising given that most other studies on workplace age discrimination focus on age discrimination of older adults (Marchiondo et al., 2019; Shore & Goldberg, 2004). The Age Discrimination in Employment Act (ADEA) offers age discrimination protections for employees aged 40 years and older, thus exempting young workers from protections. However, some research suggests that older leaders can stereotype younger workers as "lazy", "selfish", or lacking in commitment to their work (Truxillo et al., 2018), resulting in interactions between the older leader and younger worker characterized by distrust and discomfort (Gutman, 2012; Myers & Sadaghiani, 2010; Truxillo et al., 2018). Age discrimination can be characterized as intentional or unintentional, and both types are associated with lower levels of employee engagement (Boone James et al., 2013). Older age discrimination (i.e., ageism) is associated with depression, poor mental health in general, and other health symptoms (Marchiondo et al., 2019). Health or other negative effects of age discrimination on young workers is not known.

Overall Mistreatment and Mental Health

In this sample, workers under 45 years of age experienced the greatest mean number of days of poor mental health. It is possible that the greater number of poor mental health days for younger workers are an artefact of societal circumstances rather than specific factors of the respondents' work setting. This survey was administered during the COVID-19 pandemic, a time during which mental health burdens were substantial. Young adults, in particular, have faced the most significant burden, with a recent study reporting that almost half (48%) of young adults (age 18–25 years) experienced symptoms of anxiety and depression (Adams et al., 2022; Hawes et al., 2021). ECE workers also experienced unique challenges during the pandemic, trying to stay open during times of lockdown and general fear (Eadie et al., 2021). More research is needed to understand the impact of work on



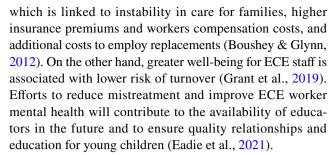
mental health for young people, including for those working in ECE settings.

This analysis also revealed that a substantial proportion of poor mental health days could be explained by the number of experiences of workplace mistreatment, indicating a need for programs and policies that reduce these types of events and support ECE staff well-being. A similar analysis of working conditions for family day care educators in Australia found that 41.7% reported psychological distress (Corr et al., 2015). Australian educators' mental well-being was closely associated with an imbalance of 'efforts' over 'rewards' (i.e., effort-reward imbalance) and a high overcommitment to work. On the other hand, investigators found that good social support was associated with improved mental health for Australian ECE workers. Cumming et al. (2021) found that collegiality was one of the top three most valued aspects of work among a group of Australian early childhood educators, while supervisor support was ranked fourth. Positive teamwork is described as cooperation, information sharing, and mutual support. A one-unit increase in positive teamwork is associated with more than a 50% reduction in the likelihood of being bullied (McFarland, 2022). The present study did not examine the role of psychological variables, however future studies should examine the relationship between mistreatment experiences and psychological variables to better understand mistreatment's role in distress and other mental health outcomes.

Improving ECE Workforce Well-Being

The U.S. Equal Employment Opportunity Commission (EEOC) provides legal protections for workers from harassment and discrimination based on age, disability, gender/ sex, genetic information, national origin, pregnancy, race/ color, and religion (US EEOC, n.d). This study suggests the need for societal and organizational policies and other initiatives beyond EEOC legal protections to address mistreatment of ECE staff in the workplace and support ECE staff well-being. Stein et al. (2022) also reported the need for mental health supports and systemic change to improve early childhood educator well-being. The responsibility of caring for and teaching children is historically undervalued and underpaid in American society (Allegretto & Mishel, 2016). A societal shift is needed to recognize and value the critical importance of ECE teachers and staff in delivering quality early childhood education, which yields tremendous benefits in academic development and life outcomes for children (Weiland & Yoshikawa, 2013).

There are multiple reasons for understanding and supporting ECE workers' well-being. Poor educator well-being is linked to both personal and employer costs (Kusma et al., 2012) and to worse outcomes for children (Ota et al., 2013). Poor health for ECE workers also leads to absenteeism,



At the organizational level, policies, training, and the creation of supportive and team-oriented working climates may all help to reduce workplace mistreatment and lead to improved mental health and wellbeing for ECE workers. The prevention of workplace mistreatment should be guided by progressive policies that do not blame the abused (Cortina et al., 2018). Also, strong leadership is critical for the prevention of workplace mistreatment (O'Flynn-Magee et al., 2020). While interpersonal conflict is inevitable in the workplace, ineffectively managed conflict can result in poor outcomes for ECE staff and children alike. Training in conflict management for leaders and staff may help to address interpersonal conflict. The American Psychological Association (APA) has compiled a number of resources about how to support the psychological well-being of ECEs.

Total worker health (TWH) interventions are another promising approach for improvement of worker well-being. TWH targets improvement of worker well-being through organizational-level change using participatory approaches (i.e., staff input) and has shown promise of successful implementation within elementary schools (Sanetti et al., 2022). Another relevant TWH leadership intervention includes supervisory support trainings and shows evidence of improvement for employee health and well-being outcomes (Hammer et al., 2021; Inceoglu et al., 2018). Exploration of the use of TWH strategies as a mechanism to improve positive teamwork and reduce bullying and other forms of mistreatment may be warranted.

Limitations

Despite study strengths, there were a few limitations to this analysis. First, the WellBQ collects age as a categorical variable, not as a continuous variable, which inhibited a closer examination of the relationship between mistreatment, age, and mental health. Second, variations in the self-reporting patterns of mistreatment and poor mental health by age or other sociodemographic characteristics may also have impacted our findings. Third, the WellBQ does not collect information about the perpetrators of workplace mistreatment, creating some limitations in using the information to best guide prevention. Fourth, this study included respondents with multiple staff roles at the Head



Start centers. Differences in experiences between teachers, assistant teachers, leadership, and other roles were not examined. Further examination of workplace mistreatment experiences by teaching and non-teaching ECE roles would be valuable to guide prevention efforts. Lastly, the respondents were educators at Head Start centers, thus serving low- and middle-income families and, therefore, findings may not be generalizable to the larger ECE workforce.

Conclusion

In this sample of ECE staff, specific workplace mistreatment experiences ranged from less common (e.g., sexual harassment) to fairly common (e.g., condescending, or demeaning treatment by colleagues or superiors). A greater number of different types of workplace mistreatment was positively associated with poor mental health days. ECE workers under 45 years of age faced a greater mental health burden. Organizational-level change using TWH strategies, policy change, conflict management training, and support structures that create positive teamwork climate may be appropriate for and effective in reducing workplace mistreatment, improving mental health for ECE workers, and ensuring quality education for children. These organizational changes may be particularly important in low-resourced settings, such as Head Start centers.

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References

- Aboagye, R. G., Seidu, A. A., Hagan, J. E., Frimpong, J. B., Budu, E., Adu, C., Ayilu, R. K., & Ahinkorah, B. O. (2021). A multicountry analysis of the prevalence and factors associated with bullying victimisation among in-school adolescents in sub-Saharan Africa: Evidence from the global school-based health survey. BMC Psychiatry, 21(1), 325–334. https://doi.org/10.1186/s12888-021-03337-5
- Adams, S. H., Schaub, J. P., Nagata, J. M., Park, M. J., Brindis, C. D., & Irwin, C. E. (2022). Young adult anxiety or depressive symptoms and mental health service utilization during the COVID-19 pandemic. *Journal of Adolescent Health*, 70(6), 985–988. https://doi.org/10.1016/j.jadohealth.2022.02.023
- Allegretto, S. A., & Mishel, L. (2016). The teacher pay gap is wider than ever: Teachers' pay continues to fall further behind pay of comparable workers. Economic Policy Institute.
- Boone James, J., McKechnie, S., Swanberg, J., & Besen, E. (2013). Exploring the workplace impact of intentional/unintentional age discrimination. *Journal of Managerial Psychology*, 28(7/8), 907– 927. https://doi.org/10.1108/JMP-06-2013-0179
- Boushey, H., & Glynn, S. J. (2012). There are significant business costs to replacing employees. *Center for American Progress*, 16, 1–9.
- Boyd-Swan, C., & Herbst, C. M. (2019). Racial and ethnic discrimination in the labor market for child care teachers. *Educational*

- Researcher, 48(7), 394–406. https://doi.org/10.3102/0013189X19867941
- Braveman, P., Egerter, S., & Williams, D. R. (2011). The social determinants of health: Coming of age. *Annual Review of Public Health*, 32(1), 381–398. https://doi.org/10.1146/annurev-publhealth-031210-101218
- Breslau, J., Aguilar-Gaxiola, S., Kendler, K. S., Su, M., Williams, D., & Kessler, R. C. (2006). Specifying race-ethinic differences in risk for psychiatric disorder in a USA national sample. *Psychological Medicine*, *36*(1), 57–68. https://doi.org/10.1017/S0033 291705006161
- Brooker, M., & Cumming, T. (2019). The 'dark side' of leadership in early childhood education. *Australasian Journal of Early Childhood*, 44(2), 111–123. https://doi.org/10.1177/18369 39119832073
- Chari, R., Sauter, S. L., Petrun Sayers, E. L., Huang, W., Fisher, G. G., & Chang, C. C. (2022). Development of the NIOSH worker well-being questionnaire (WellBQ). *Journal of Occupational & Environmental Medicine*. https://doi.org/10.1097/jom.00000 000000002585
- Cheruvu, R., Souto-Manning, M., Lencl, T., & Chin-Calubaquib, M. (2015). Race, isolation, and exclusion: What early childhood teacher educators need to know about the experiences of preservice teachers of color. *The Urban Review*, 47(2), 237–265. https://doi.org/10.1007/s11256-014-0291-8
- Corr, L., Cook, K., LaMontagne, A. D., Waters, E., & Davis, E. (2015). Associations between Australian early childhood educators' mental health and working conditions: A cross-sectional study. Australasian Journal of Early Childhood, 40(3), 69–78. https://doi.org/10.1177/183693911504000310
- Cortina, L. M., Rabelo, V. C., & Holland, K. J. (2018). Beyond blaming the victim: Toward a more progressive understanding of workplace mistreatment. *Industrial and Organizational Psychology*, 11(1), 81–100. https://doi.org/10.1017/iop.2017.54
- Cumming, T. (2017). Early childhood educators' well-being: An updated review of the literature. *Early Childhood Education Journal*, 45(5), 583–593. https://doi.org/10.1007/s10643-016-0818-6
- Cumming, T., Wong, S., & Logan, H. (2021). Early childhood educators' well-being, work environments and 'quality': Possibilities for changing policy and practice. *Australasian Journal of Early Childhood*, 46(1), 50–65. https://doi.org/10.1177/1836939120979064
- de Lange, A. H., Taris, T. W., Jansen, P. G. W., Smulders, P., Houtman, I. L. D., & Kompier, M. A. J. (2006). Age as a factor in the relation between work and mental health: Results from the longitudinal TAS survey. In J. Houdmont & S. McIntyre (Eds.), Occupational health psychology: European perspectives on research, education and practice (pp. 21–45). ISMAI Publications.
- De, W. C. (2014). Educators' understanding of workplace bullying. South African Journal of Education, 34(1), 1–16. https://doi.org/ 10.10520/EJC148679
- Del Carmen Triana, M., Jayasinghe, M., & Pieper, J. R. (2015). Perceived workplace racial discrimination and its correlates: A meta-analysis. *Journal of Organizational Behavior*, 36(4), 491–513.
- Dhanani, L. Y., Beus, J. M., & Joseph, D. L. (2018). Workplace discrimination: A meta-analytic extension, critique, and future research agenda. *Personnel Psychology*, 71(2), 147–179. https://doi.org/10.1111/peps.12254
- Eadie, P., Levickis, P., Murray, L., Page, J., Elek, C., & Church, A. (2021). Early childhood educators' wellbeing during the COVID-19 pandemic. *Early Childhood Education Journal*, 49(5), 903–913. https://doi.org/10.1007/s10643-021-01203-3
- Farewell, C. V., Quinlan, J., Melnick, E., Powers, J., & Puma, J. (2022). Job demands and resources experienced by the early childhood education workforce serving high-need populations.



- Early Childhood Education Journal, 50, 197–206. https://doi.org/10.1007/s10643-020-01143-4
- Filut, A., Alvarez, M., & Carnes, M. (2020). Discrimination toward physicians of color: A systematic review. *Journal of the National Medical Association*, 112(2), 117–140. https://doi.org/10.1016/j.jnma.2020.02.008
- Flanagin, A., Frey, T., & Christiansen, S. L. (2021). Updated Guidance on the reporting of race and ethnicity in medical and science journals. *Journal of the American Medical Association*, 326(7), 621–627. https://doi.org/10.1001/jama.2021.13304
- Grant, A. A., Jeon, L., & Buettner, C. K. (2019). Relating early childhood teachers' working conditions and well-being to their turnover intentions. *Educational Psychology*, *39*(3), 294–312. https://doi.org/10.1080/01443410.2018.1543856
- Gutman, A. (2012). Age-based laws, rules, and regulations in the United States. *In the Oxford Handbook of Work and Aging*. https://doi.org/10.1093/oxfordhb/9780195385052.013.0181
- Hammer, L. B., Brady, J. M., Brossoit, R. M., Mohr, C. D., Bodner, T. E., Crain, T. L., & Brockwood, K. J. (2021). Effects of a Total Worker Health® leadership intervention on employee well-being and functional impairment. *Journal of Occupational Health Psychology*, 26(6), 582–598. https://doi.org/10.1037/ocp0000312
- Hard, L. (2006). Horizontal violence in early childhood education and care: Implications for leadership enactment. *Australasian Journal* of Early Childhood, 31(3), 40–48. https://doi.org/10.1177/18369 3910603100307
- Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009). Research electronic data capture (REDCap)—A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, 42(2), 377–381.
- Hawes, M. T., Szenczy, A. K., Klein, D. N., Hajcak, G., & Nelson, B. D. (2021). Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic. Psychological Medicine. https://doi.org/10.1017/S003329172 0005358
- IBM Corp. (2021). IBM SPSS statistics for windows (28.0). IBM Corp. Inceoglu, I., Thomas, G., Chu, C., Plans, D., & Gerbasi, A. (2018). Leadership behavior and employee well-being: An integrated review and a future research agenda. The Leadership Quarterly, 29(1), 179–202. https://doi.org/10.1016/j.leaqua.2017.12.006
- Jahnke, S. A., Haddock, C. K., Jitnarin, N., Kaipust, C. M., Hollerbach, B. S., Poston, W. S. C., & Leon-Perez, J. M. (2019). The prevalence and health impacts of frequent work discrimination and harassment among women firefighters in the US Fire Service. *BioMed Research International*. https://doi.org/10.1155/2019/6740207
- Jemal, A., Gardiner, M., & Bloeser, K. (2019). Perceived race as variable: Moderating relationship between perceived discrimination in the workplace and mentally unhealthy days. *Journal of Racial and Ethnic Health Disparities*, 6(2), 265–272. https://doi.org/10.1007/s40615-018-0521-y
- Jeon, L., Buettner, C. K., & Grant, A. A. (2018). Early childhood teachers' psychological well-being: Exploring potential predictors of depression, stress, and emotional exhaustion. *Early Education and Development*, 29(1), 53–69. https://doi.org/10.1080/10409 289.2017.1341806
- Jones, C., Johnstone, M., Hadley, F., & Waniganayake, M. (2020). Early childhood educators' workplace well-being: It's everyone's right! Australasian Journal of Early Childhood, 45(4), 322–335. https://doi.org/10.1177/1836939120966086
- Kowalski, R. M., Toth, A., & Morgan, M. (2018). Bullying and cyber-bullying in adulthood and the workplace. *The Journal of Social Psychology*, 158(1), 64–81. https://doi.org/10.1080/00224545. 2017.1302402

- Kusma, B., Groneberg, D., Nienhaus, A., & Mache, S. (2012). Determinants of day care teachers' job satisfaction. *Central European Journal of Public Health*, 20, 191–198. https://doi.org/10.21101/cejph.a3700
- Ludlow, C. (2021). Workplace bullying in the early childhood sector. The Sector.
- Marchiondo, L. A., Gonzales, E., & Williams, L. J. (2019). Trajectories of perceived workplace wge discrimination and long-term associations with mental, self-rated, and occupational health. *The Journals of Gerontology: Series B*, 74(4), 655–663. https://doi.org/10.1093/geronb/gbx095
- McFarland, L. (2022). Promoting safety and belonging for children, families, and early childhood professionals during times of uncertainty. *Australasian Journal of Early Childhood*, 47(3), 165–167. https://doi.org/10.1177/18369391221120333
- McFarland, L., Bull, R., Cumming, T., & Wong, S. (2022). Work-place bullying in early childhood education settings: Prevalence and protective factors. *International Journal of Early Childhood*. https://doi.org/10.1007/s13158-022-00341-y
- McKnight-Eily, L. R., Okoro, C. A., Strine, T. W., Verlenden, J., Hollis, N. D., Njai, R., Mitchell, E. W., Board, A., Puddy, R., & Thomas, C. (2020). Racial and ethnic disparities in the prevalence of stress and worry, mental health conditions, and increased substance use among adults during the COVID-19 pandemic—United States, April and May 2020. Morbidity and Mortality Weekly Report, 70, 162–166. https://doi.org/10.15585/mmwr.mm7005a3externalicon
- Mcmullen, M., Lee, M., McCormick, K., & Choi, J. (2020). Early childhood professional well-being as a predictor of the risk of turnover in child care: A matter of quality. *Journal of Research* in Childhood Education, 34, 1–15. https://doi.org/10.1080/02568 543.2019.1705446
- Morgan, R. (2019). Employsure state of work report 2018/19. Employsure.
- Myers, K. K., & Sadaghiani, K. (2010). Millennials in the workplace: A communication perspective on millennials' organizational relationships and performance. *Journal of Business and Psychology*, 25(2), 225–238. https://doi.org/10.1007/s10869-010-9172-7
- National Institute for Occupational Safety and Health (2021). Worker well-being questionnaire (WellBQ). U.S. Department of Health and Human Services, Center for Disease Control & Prevention. https://www.cdc.gov/niosh/twh/wellbq/default.html
- Nislin, M. A., Sajaniemi, N. K., Sims, M., Suhonen, E., Maldonado Montero, E. F., Hirvonen, A., & Hyttinen, S. (2016). Pedagogical work, stress regulation and work-related well-being among early childhood professionals in integrated special day-care groups. *European Journal of Special Needs Education*, 31(1), 27–43. https://doi.org/10.1080/08856257.2015.1087127
- O'Flynn-Magee, K., Rodney, P., Pearson, M., Burnay, M. A., & Daly, Z. (2020). Interrupting the cycle of bullying witnessed or experienced by nursing students: An ethical and relational action framework. *Nurse Education Today*, 91, 1–6.
- Oh, H. (2021). The association between discriminatory experiences and self-reported health status among Asian Americans and its subethnic group variations. *Journal of Racial and Ethnic Health Disparities*, 9, 1689–1696. https://doi.org/10.1007/s40615-021-01108-2
- Okechukwu, C. A., Souza, K., Davis, K. D., & de Castro, A. B. (2014). Discrimination, harassment, abuse, and bullying in the workplace: Contribution of workplace injustice to occupational health disparities. *American Journal of Industrial Medicine*, 57(5), 573–586. https://doi.org/10.1002/ajim.22221
- Ota, C. L., Baumgartner, J. J., & Berghout Austin, A. M. (2013). Provider stress and children's active engagement. *Journal of Research in Childhood Education*, 27(1), 61–73.
- Otten, J. J., Bradford, V. A., Stover, B., Hill, D. H., Osborne, C., Getts, K., & Seixas, N. (2019). The culture of health in early care and education: Workers' wages, health, and job characteristics. *Health*



- Affairs, 38(5), 709–720. https://doi.org/10.1377/hlthaff.2018. 05493
- Pascoe, E. A., Lattanner, M. R., & Richman, L. S. (2022). Meta-analysis of interpersonal discrimination and health-related behaviors. Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association, 41(5), 319–331. https://doi.org/10.1037/hea0001147
- Raver, J. L., & Nishii, L. H. (2010). Once, twice, or three times as harmful? Ethnic harassment, gender harassment, and generalized workplace harassment. *Journal of Applied Psychology*, 95, 236–254. https://doi.org/10.1037/a0018377
- Rentzou, K. (2012). Examination of work environment factors relating to burnout syndrome of early childhood educators in Greece. Child Care in Practice, 18(2), 165–181.
- Sanetti, L. M. H., Pierce, A. M., Gammie, L., Dugan, A. G., & Cavallari, J. M. (2022). Scale-out of a total worker health® approach for designing interventions to reduce teacher stress: Pilot implementation evaluation. *BMC Public Health*, 22(1), 814–828. https://doi.org/10.1186/s12889-022-13241-6
- Sareen, J., Affi, T. O., McMillan, K. A., & Asmundson, G. J. (2011). Relationship between household income and mental disorders: Findings form a population-based longitudinal study. Archives of General Psychiatry, 68(4), 419–427. https://doi.org/10.1001/archg enpsychiatry.2011.15
- Schulte, P. A., Delclos, G., Felknor, S. A., & Chosewood, L. C. (2019). Toward an expanded focus for occupational safety and health: A commentary. *International Journal of Environmental Research* and Public Health, 16(24), 24. https://doi.org/10.3390/ijerph1624 4946
- Shields-Zeeman, L., & Smit, F. (2022). The impact of income on mental health. *The Lancet: Public Health*, 7(6), e486–e487. https://doi.org/10.1016/S2468-2667(22)00094-9
- Shore, L. M., & Goldberg, C. B. (2004). Age Discrimination in the Workplace. In R. L. Dipboye & A. J. Colella (Eds.), *Discrimina*tion at work: The psychological and organizational bases (pp. 203–225). Psychology Press. https://doi.org/10.4324/9781410611 567
- Smith, R., Johnson, A., Targan, A., Piggott, C., & Kvach, E. (2022). Taking our own temperature: Using a residency climate survey to support minority voices. *Family Medicine*, *54*(2), 129–133. https://doi.org/10.22454/FamMed.2022.344019
- Sorensen, G., Dennerlein, J. T., Peters, S. E., Sabbath, E. L., Kelly, E. L., & Wagner, G. R. (2021). The future of research on work,

- safety, health and wellbeing: A guiding conceptual framework. *Social Science & Medicine*, 269, 113593–113602. https://doi.org/10.1016/j.socscimed.2020.113593
- Sorensen, G., Sparer, E., Williams, J. A. R., Gundersen, D., Boden, L. I., Dennerlein, J. T., Hashimoto, D., Katz, J. N., McLellan, D. L., Okechukwu, C. A., Pronk, N. P., Revette, A., & Wagner, G. R. (2018). Measuring best practices for workplace safety, health, and well-being: The workplace integrated safety and health assessment. *Journal of Occupational and Environmental Medicine*, 60(5), 430–439. https://doi.org/10.1097/JOM.0000000000001286
- Stein, R., Garay, M., & Nguyen, A. (2022). It matters: Early child-hood mental health, educator stress, and burnout. *Early Child-hood Education Journal*, 52, 333–344. https://doi.org/10.1007/s10643-022-01438-8
- Taie, S., & Goldring, R. (2017). Characteristics of public elementary and secondary school teachers in the United States: Results from the 2015–16 National Teacher and Principal Survey. First Look. NCES 2017-072. In National Center for Education Statistics. National Center for Education Statistics. https://eric.ed.gov/?id= ED575193
- Truxillo, D. M., Finkelstein, L. M., Pytlovany, A. C., & Jenkins, J. S. (2018). Age discrimination at work: A review of the research and recommendations for the future. In A. J. Colella & E. B. King (Eds.), *The Oxford handbook of workplace discrimination* (pp. 129–142). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199363643.013.10
- US EEOC. (n.d.). Discrimination by Type. https://www.eeoc.gov/discrimination-type
- Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development*, 84(6), 2112–2130. https://doi.org/10.1111/cdev.12099
- Ylitapio-Mäntylä, O., Uusiautti, S., & Määttä, K. (2012). Critical viewpoint to early childhood education teachers' well-being at work. *Journal of Human Sciences*, 9(1), 458–483.

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