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MILLENNIAL CAREGIVERS COMPLEX IDENTITY AND INTERSECTIONALITY

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Complex Identities, Intersectionality and Research Approaches in Millennial Family

Caregivers **in the United States**

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Abstract

Millennial family caregivers comprise one-quarter of the family caregiving population in the United States. They are the most diverse caregiving generation thus far. In prior work, Millennial family caregivers have identified the importance of complex identities and the challenges of navigating structural barriers to care. This position paper describes the personal and social contexts for Millennial family caregivers and identifies the value of including complex identity and intersectionality in Millennial family caregiving research with some practical applications. Millennial family caregivers have distinct generational, historical, and developmental experiences that contribute to the care they provide as well as their own well-being. Complex identity, the integration of multiple identities, and intersectionality, systems, and structures that disempower and oppress individuals with multiple identities, need to be addressed in research so intervention tailoring and health equity can be better supported in this population. We recommend the following research approaches to address complex identity and intersectionality in Millennial caregivers: inclusion of qualitative demographic data collection (participants can self-describe); data disaggregation; data visualization techniques to augment or replace frequencies and descriptive statistics for demographic reporting; use of researcher reflexivity throughout the research process; advanced statistical modeling techniques that can handle complex demographic data and test for interactions and differential effects of health outcomes; and qualitative approaches such

as phenomenology that center the stories and experiences of individuals within the population of interest. From research conceptualization and design to data analysis, data must be used intentionally to promote equity and reduce bias. Finally, the inclusion of diverse Millennial caregivers throughout all stages of the research process and having a diverse research workforce will support these efforts. Millennial caregivers are a diverse and important population. Their needs will be more fully supported by nursing scientists with the adoption of methods and techniques that address complex identity and intersectionality.

Patient or Public Contribution

This paper was developed in response to findings from a qualitative study that examined the stress and experiences of Millennial family caregivers. In addition, members of this team have complex identities; some with relevant caregiving experience and/or identifying as Millennials. These perspectives and the state of the science informed this work.

Keywords: Family caregivers, Millennials, complex identity, intersectionality, health equity

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Caregivers in the United States

Aims

Millennial family caregivers comprise one-quarter of the caregiving population in the United States, and they are the most diverse generation of adult caregivers thus far (Flinn, 2018; National Alliance for Caregiving, 2020). Their contributions to the care of individuals with chronic health conditions across the lifespan is significant and will continue to grow as they and their care recipients (e.g., Baby Boomers) age (NAC, 2020). The purpose of this position paper is to outline the individual and social contexts for Millennial family caregivers, including addressing the salience of complex identities and intersectionality in this group. In addition, we will propose research approaches that will more effectively capture complex identity and tailored intervention needs and address structural issues related to intersectionality and health disparities in research and practice for Millennial caregivers.

Background

Millennial Caregivers—Who They Are

Millennial family caregivers are those born between 1981 and 1996 (ages 26-41 in 2022) (Flinn, 2018; National Alliance for Caregiving, 2020; Taylor & Keeter, 2010). We will herein refer to individuals born between these dates who are caring for family, friends, and neighbors with chronic health conditions, as Millennial caregivers (Stall et

al., 2019). While “family” can denote a legal or kinship relationship, we use a broad definition of family that includes family of choice, and we align our terminology with the American Geriatrics Society for the use of family caregiver (Stall et al., 2019). Most of what is known about Millennial caregivers comes from population level studies focused specifically on Millennials or Millennial caregivers (Flinn, 2018; Moody Analytics, 2019; Flinn; NAC, 2020). There is burgeoning research focused on young adult family caregivers, particularly in the cancer space. These research studies provide important insights regarding young adult caregivers including the challenges related to the caregiver’s developmental stage (e.g. career and child care), the importance of social support, and employment and financial burdens related to caregiving at a younger age (Warner et al., 2021; Warner et al., 2021; Waters et al., 2021). For the purposes of this manuscript, we focus specifically on caregivers born between 1981 and 1996 because of important historical and generational factors as well as developmental phases that impact this group (Taylor & Keeter, 2010).

Millennial caregivers have unique challenges relating to their life stage, including competing responsibilities with work, family, and social lives, disruption in education/career/intimate relationships, and financial concerns (Flinn, 2018; NAC, 2020; Blinded for Review, 2021). Generationally, Millennials are navigating higher stress and poorer health outcomes when compared to previous generations at similar ages (Moody’s Analytics, 2019). The reasons for these poorer health outcomes are unclear, but it has been proposed that Millennials experience a “health shock”—unpredictable illnesses that diminish health—relating to increased isolation (may be related to fewer close relationships, high social media use, long work hours, and more single member

households) and decreased economic security (Ballard, 2019; Bialik & Fry 2019; Moody's Analytics, 2019). In addition, Millennials are more likely to experience mental and emotional health conditions when compared to previous generations, and Millennial caregivers are more likely than older caregivers to be supporting a care recipient with a mental or emotional health condition (Moody's Analytics, 2019; NAC, 2020). Finally, Millennial caregivers are also achieving specific adult milestones at later ages than previous generations (e.g. home buying, marriage, child-bearing, and establishment of retirement accounts) (Flinn, 2018; Frey, 2018). For example, Millennials are less likely to be married than their non-Millennial counterparts were at the same age, with about half of Millennial caregivers self-reporting being single and never married (Flinn, 2018).

As noted previously, Millennial caregivers are the most diverse adult caregiving group thus far, with Generation Z having even greater diversity. Millennial caregivers have the greatest racial and ethnic diversity compared to previous generations in the United States (NAC, 2020). Less than half of Millennial caregivers are White (44%), with 27% being Hispanic/Latino, 18% African American/Black, and approximately 8% Asian American/Pacific Islander (Flinn, 2018). This growing population of non-White caregivers is important to recognize as they face additional challenges in relation to their health and wellbeing (NAC, 2020). For example, racial discrimination is associated with poor physical and mental health for people of color in the United States (Paradies et al., 2015; LaFave et al., 2022). Additionally, expectations for family caregiving and close family relationships are central to many cultures, thus increasing the importance of social support. Social support may be specifically important for Black individuals as evidence suggests they are more likely to rely on informal support networks than formal

networks (Nguyen et al., 2019). In addition to racial and ethnic diversity, 34% of LGBTQ+ caregivers are Millennial, which is a greater proportion than any previous generation (Flinn, 2018). For LGBTQ+ people of color, research has primarily focused on racism, sexual status, and gender identity as separate areas of focus (Velez et al., 2019). Thus, we still lack a nuanced understanding of how racism, homophobia, and transphobia intersect and shape the experiences of this population (Velez et al., 2019).

Interventions have been developed to address the stress and supportive care needs of family caregivers, including adolescent and young adult caregivers (Kirchhoff, 2019), yet there are few research studies and interventions tailored specifically to the experiences of Millennial caregivers (Blinded for Review, 2021). A prior qualitative descriptive study focusing on the stress and supportive care needs of Millennial caregivers identified the following themes: an overarching sense of uncertainty and disruption, contextual issues such as complex Millennial caregiver identities and external structural and power barriers to support, and support needs including workplace flexibility and federal policy for financial support (Blinded for Review, 2021). Considering these findings, intersectionality and complex identity must be incorporated into research and interventions designed to support Millennial caregivers (Council et al., 2020; Taylor & Keeter, 2010; Blinded for Review, 2021).

Social Context for Millennial Caregivers

Like all generational cohorts, Millennials have been impacted by previous generations and historical factors that have coincided with individual development (DeChane, 2014; Taylor & Keeter, 2010). Strauss and Howe (1992) describe their

generational theory through the idea of cyclical “turnings”—each generation compensating for the failings of the midlife generation in charge when they emerge into adulthood. Generational archetypes of heroes, artists (silent generation), prophets (Baby Boomers), and nomads (Gen X) occur in a recognizable pattern, and are most influenced by prior generations. Strauss and Howe (1992) characterize Millennials as “heroes,” who have responded to crisis and apathy in the previous generation by refocusing on community. Karl Mannheim’s Theory of Generations (1952) focuses more on the influence of historical events than cyclical archetypes to describe generational “turnings.” Some examples for Millennials are 9/11 and the global recession, which impacted feelings of safety and economic security. When used together, both theories, generational influence and historical events, support the examination of the social context for Millennials (DeChane, 2014; Mannheim, 1952; Strauss & Howe, 1992). We would be remiss to dismiss the criticisms related to generational theory—that events noted in cohorts are related to lifespan development and history versus generational effects, or that generations themselves are analytical constructs (Rudolph et al., 2020; Fry, 2020). Our proposal is that cohorts are impacted by history, as noted in Mannheim’s theory; generation, which is the influence of prior cohorts as noted in Strauss and Howe’s theory; and lifespan development, with all of these factors contributing to sociological norms (DeChane, 2014; Mannheim, 1952; Rudolph et al., 2020; Strauss & Howe, 1992).

Multiple factors have contributed to the characterization of Millennials as confident, optimistic, socially connected, conscious, collaborative, and tech-savvy (DeChane, 2014; Vogels, 2019). The widespread adoption and rapid innovation of

technology has been one of the most significant influences on Millennials (DeChane, 2014; Vogels, 2019). They are identified as the first generation of digital natives, creating an environment of social connectedness, globalization, and political activism through social media platforms (Feldman et al., 2020; Tyson, Kennedy, & Funk, 2021). Generationally, Millennials were raised within environments focused on the needs of children (DeChane, 2014; Gomes & Deuling, 2019). Subsequently, they were raised to have confidence in themselves and their purpose (Taylor & Keeter, 2010; Gomes & Deuling, 2019). That confidence can be seen in their attitudes towards employment—working to live, rather than living to work—and their placement of value on people versus institutions (Feldman et al., 2020). The rise in school shootings and the events of 9/11 have influenced a wariness of human nature, while they also embrace the use of government to address social wrongs (DeChane, 2014). Millennial expectations for equity and social activism can be seen in the #MeToo, Occupy Wall Street, and Black Lives Matter Movements (Council et al., 2020; Frey, 2018). While Millennials are achieving post-secondary education at higher rates than previous generations, there are significant wealth gaps for this population. Due to the global recession, wage stagnation, and high student loan debt, Millennials are less financially secure than previous generations were at the same age (Frey, 2018; Taylor & Keeter, 2010). Poverty rates are higher in Millennial women than men and people of color versus White counterparts (Frey, 2018; Taylor & Keeter, 2010). Despite these challenges, Millennials are optimistic about their economic futures while acknowledging their present financial challenges (Taylor & Keeter, 2010; Walton Family Foundation, 2021).

Although the trends we discuss here are reported from Millennials in the United States, there are similar trends globally. Millennials are the largest global generational cohort, the highest educated adult cohort, and they have increasing influence on global politics and the global economy (Neufeld, 2021; Visual Capitalist, 2022). In addition, there are distinct contextual factors for health care policy, payment, and delivery in the United States that affect Millennial family caregivers including: no federal paid family leave, a hybrid health care delivery system largely reliant on employer-based insurance coverage, high out-of-pocket health care costs, and fragmented health care delivery due to health care de-centralization (The Commonwealth Fund, 2020; Blinded for Review, 2022).

Millennials in the United States have been described as a cultural bridge between older generations and more diverse, younger generations (Frey, 2018). Millennials are the most diverse adult generation to date, with Generation Z being even more diverse. As a generational cohort, they are more liberal and open to diversity of all kinds than previous generations (Frey, 2018). They grew up when immigration rates were higher relative to Baby Boomers, the first Black U.S. president was elected, marriage equality was supported as a fundamental right, and marijuana legalization was promoted (DeChane, 2014; Frey, 2018). Millennials also acknowledge and manifest complex identity through social justice movements, as consumers, and as members of the workforce (Frey, 2018). Millennials experience the impact of intersectionality with Black, Latino, Asian, female, and LGBTQ+ individuals experiencing lower education rates, more financial hardships and employment insecurity related to historical and

contemporary policies and power structures that reinforce inequity (Frey, 2018; Taylor & Keeter, 2010).

Individuals within the Millennial cohort experience these historical, social, and generational influences differently based on their own personal histories and complex identities. We present these factors as a means to frame the social, historical, and generational context for this caregiving group, while acknowledging the importance of an individual's lived experience. We believe that this generational cohort with its greater diversity, openness, view of self-identity as complex, and ongoing experience with inequity creates a unique opportunity to for Millennial caregiver research in the United States using the lenses of complex identity and intersectionality.

Design

This is a position paper addressing the importance of complex identity and intersectionality for Millennial caregiver research. We have a large and diverse group of authors who contributed their expertise and perspectives to the main ideas of this discussion. This paper stemmed from findings from a previous qualitative study where Millennial caregivers described their diverse identities and structural challenges to equitable care (Blinded for Review, 2021). In addition, we examined the literature broadly to understand the background of Millennial caregivers and the context for Millennials, and the implications of complex identity and intersectionality for Millennial caregivers. Finally, we approached the literature for research methods that address complex identity and intersectionality.

Complex Identities and Intersectionality

In this paper, we discuss both complex identity and intersectionality in Millennial caregiver research as separate but important concepts. Health and behavior are influenced by both individual and contextual or social factors. Complex identities are individual factors that need to be addressed in research and intervention tailoring, so individuals receive interventions that meet their specific needs (Kim et al., 2021). Contextual factors, such as structures of power, occur outside of the individual, yet exert influence on the individual's health and behaviors. When examining contextual factors, such as social determinants of health, it is critical to emphasize how power structures influence equitable distribution of resources for individuals (Lopez & Gadsden, 2016). Intersectionality provides a frame for understanding these structures of power and their influence on individuals.

With complex identities, individuals self-identify across multiple sociocultural groups (Ramarajan, 2014). Rather than being defined by one identity, individuals must reconcile the multitude of identities they hold. This creates a nuanced and layered sense of self, which impacts behavior and interactions within larger systems (Ramarajan, 2014). It is important to note that identity, in our view, is one that is internally recognized rather than imposed by external forces—the external interactions with identity will be more fully addressed in our discussion on intersectionality. Complex identities may seem basic and intuitive because all individuals navigate multiple identities across the lifespan (Burke, 2003). Yet, identity is important in addressing how individuals respond within a social system and what interventions may be more effective based on internal processes such as values and beliefs (Burke, 2003). Gaither (2019) posits that individuals with complex identities may have more flexible thinking, which

may be a source of strength for Millennial caregivers. Complex identities are rarely addressed in caregiving research or intervention development and are particularly relevant in Millennial caregivers due to their level of diversity. In addition, complex identities matter to Millennials in terms of sense of self, social engagement, health behavior, and caregiving experiences (Council et al., 2020; Owdom & Vitta, 2020; Blinded for Review, 2021).

Intersectionality focuses on systems of power that both oppress and advantage individuals within communities and institutions (Crenshaw, 1989). Proposed by Dr. Kimberle Crenshaw, intersectionality provides a framework to understand how power and oppression affect individuals with overlapping historically marginalized social identities (gender, race, ethnicity, social class, religion, sexual orientation, ability, and gender identity; Crenshaw, 1989). This framework is more than just adding identities together, it is about how overlapping identities influence power distribution and the lived experience of individuals (Wilson et al., 2019). Crenshaw proposed this term and other Black feminist scholars have since described associated concepts in response to the limitations of research and policy that focused solely on a single-axis of Black identity or female identity, versus Black female identity (Crenshaw, 1989; Rice et al., 2019). Intersectionality thought has deep roots, described by some as dating back to Sojourner Truth with her lived experience related to gender, class, race, and prior enslavement (Rice et al., 2019). Rice et al. (2019) and Grabe (2020) describe the importance of research and methodologies that retain intersectionality's origins of understanding, focuses on changing oppression, illuminates women of color, and addresses how policy and power around gender, race, class, and sexuality impact people's lives. This relates

to priorities in Millennial caregiver research including access to care, financial well-being and other equity-related health outcomes.

Research Approaches

Addressing complex identity and intersectionality requires intentional approaches to conceptualizing and asking research questions, applying theory, creating data collection tools, data analysis and interpretation, and reporting of data. Key to the following discussion is the understanding that addressing complex identity may support greater health equity for Millennial caregivers through individual tailoring, but intersectionality work inherently focuses on understanding and addressing health equity through policy and systems level work for Millennial caregivers. The Global Partnership for Sustainable Development Data (GPSDD) describes strategies for data collection and usage issues to prevent further marginalization of individuals and communities, exclusion, and discrimination against those at most risk due to structural inequity (2021). The following are recommendations from GPSDD that can be a guide for developing Millennial caregiving research studies and interventions, particularly in the data value chain process (data collection, publication, use, and impact). The data value chain is the process of creating data to produce value including data collection, publication, use, and impact (GPSDD, 2021).

1. Center the voices of historically marginalized groups in all data systems and practice elements, including the research process and policy creation (GPSDD, 2021). Community engaged research approaches, such as community-based

participatory research (CBPR), are methods to emphasize the voices, needs, and values of historically marginalized groups (Key et al., 2019).

2. Building on the first recommendation, include individuals from the communities and experts in the field to inform engagement with data to address complex identity and systems or structures of power affecting those with complex identities (GPSDD, 2021, Key et al., 2019).
3. Encourage equity throughout the data value chain: Ask the following: a) who has been included in identifying what data to collect and how to collect it?; b) who is doing data analysis, and are they using intersectional frameworks to analyze data?; c) how is data influencing policy?; 4) how is inequality being measured (GPSDD, 2021)?
4. Promote institutional data systems that are standardized, inclusive, and safe. Preserving confidentiality is of utmost importance when creating data collection schemas to address complex identity (Fernandez et al., 2016; GPSDD, 2021). For example, in a small, qualitative study where individuals may be more readily identified, the description of participants should be broad enough that no single individual could be identified.
5. Promote a diverse and inclusive research workforce. This should be a priority in all research teams seeking to address complex identity and intersectionality in research for Millennial caregivers (Gutierrez & Cobian, 2021). In addition to inclusion of diverse team members, measures should be in place to adequately compensate these individuals for their time and expertise.

Below we outline additional considerations to address complex identity and intersectionality in Millennial caregiver research (Please see Table 1).

Theory Application

Theory driven nursing research is key for addressing complex identity and intersectionality for Millennial caregivers. Theoretical foundations, including Critical Race Theory and Minority Stress can be used alone or in combination with other caregiving conceptual or theoretical frameworks to guide study design, data collection, analysis, and interpretation of findings. Critical Race Theory (CRT) aligns with intersectionality principles including: addressing race, racism, and intersectional factors; challenging White centered ideology; research is focused on social justice and empowering oppressed groups; experiential knowledge and communication of people of color, such as storytelling, are valid ways to understand the world; the use of interdisciplinary teams and perspectives to conduct research (Sablan, 2018). Minority Stress provides a framework to understand the higher rates of mental illness in sexual and gender minorities (Meyer, 2003). Meyer (2003) posits that for individuals who identify within minority groups, there are added social stressors related to prejudice, stigma, and discrimination, these stressors are chronic, and the stressors originate from the social environment. Some commonly used caregiving models, such as the Stress Process Model and the Cancer Family Caregiving Experience Model, integrate well with both CRT and Minority Stress, because these models show a pathway for the stress process, which includes chronic life stress and the social environment (Fletcher et al., 2012; Pearlin et al., 1981). The key difference for researchers integrating CRT and Minority Stress alone or with the Stress Process or Cancer Family Caregiving

Experience Models is that social and environmental structures and power have to be included in understanding Millennial caregiver stress and developing interventions for Millennial caregiver stress (Meyer, 2003; Sablan, 2018).

Demographics

Demographic data collection is the first step where intentional collection of data related to identity in Millennial caregivers is needed. This includes using demographic data as a main part of study data collection planning, rather than an afterthought. Fernandez et al. (2016) propose collecting demographics at the end of a survey to decrease stereotype threat, which is an individual responding to cultural stereotypes in testing. Considerations, such as survey length, and capturing complete data are also considerations with where demographics are placed. Demographic questions from screening procedures can be auto-populated into surveys after study consent to prevent unnecessary questions and survey fatigue. In addition, demographic survey items should be inclusive of all potential choices (avoiding either/or, rather “select all that apply”) and provide options for individuals to self-describe. Individuals should also be able to opt out of any questions. Demographic surveys should be piloted, at a minimum, with the population of interest, which could include cognitive interviews and subsequent validation (Fernandez et al., 2016). In addition to demographic data collection, demographic data reporting needs to mirror the nuanced descriptions of populations rather than “binning” for convenience. The use of both qualitative (areas to provide

space for self-description) along with traditional quantitative approaches to demographic data collection will facilitate this process (Fernandez et al., 2016).

Data visualization techniques can be used to show patterns of demographic data to supplement or replace traditional demographic reporting methods (frequencies and descriptive statistics). These might include heat maps (tables using colors to represent magnitude) and quilt plots (simplified heat map). For heat maps, the use of cluster analysis and dendograms can provide further reduction of data for understanding substructures and relationships (Population Health Methods, 2019). For very large datasets, natural language processing and other machine learning techniques can be employed to distill demographic information into understandable chunks. This would need to be guided by communities of interest and expert researchers within these communities, because there is risk of bias in natural language processing (NLP) without appropriate a priori planning (Leeson et al., 2019). These recommendations can be used to further understand complex identity, and as a starting point for understanding the interactions between identity and inequitable health outcomes using an intersectionality approach.

More thorough and inclusive approaches to demographic data collection can also promote data disaggregation. Given that more than half of Millennial caregivers self-report as racial and ethnic minorities (Flinn, 2018), it is becoming increasingly vital to examine how the role of a caregiver affects historically minoritized groups that are frequently viewed as a monolith. For example, while data shows that Asian American Pacific Islander (AAPI) caregivers are nearly twice as likely as the general population of the same age to care for elders (Flinn, 2018), few studies are disaggregated by AAPI

ethnicities. Disaggregated data is critical to generate valuable information for designing and implementing culturally tailored and appropriate interventions to address complex identities (Kim et al., 2021). Additionally, health disparities related to structural inequity can be more readily understood among groups when data are disaggregated.

Disaggregating data is most realistic with larger datasets and multiple data collection timepoints to allow for more robust analyses. The National Forum for Education Statistics (2016) recommends the use of stakeholders in determining how, when, and why data will be disaggregated and interpreted.

General Principles and Approaches for Qualitative and Quantitative Methodologies

When using quantitative or qualitative techniques to address complex identity or intersectionality in Millennial caregiver research, some key principles should be followed: researcher reflexivity, inclusion of communities of interest throughout the research process, and continually connecting back to the research goal (Gendered Innovations, n.d.).

- Researcher reflexivity is a technique primarily employed in qualitative research but also has value in quantitative research. With reflexivity, the researcher starts the research process by acknowledge positionality and then moves forward throughout the research process with ongoing checks about their own perspectives and experiences that might influence the research. They might do this by journaling and/or having check-ins with mentors or members of the research team (Dodgson, 2019).

- Including communities of interest in the research process can vary in approach, including: community engagement prior to starting research, CBPR, community-informed research, co-created interventions, community advisory boards (an important piece of CBPR), and members of the research team who identify with the community of interest. Even the most well-intentioned researchers have implicit bias that can go unchecked, so having insider and outsider perspectives throughout the research process can ensure the voices and needs of the communities of interest are being addressed (Gendered Innovations, n.d.; Rice et al., 2019).
- The purpose of the research project should always shape the methodology, data collection process, and data analysis (Gendered Innovations, n.d.).

Remembering that intersectionality emphasizes power and oppression, research for Millennial caregivers with this lens should focus on understanding or addressing the experiences of power and oppression based on intersecting identities. Research addressing complex identity may overlap with intersectionality when systems of power are being addressed, but addressing identity alone does not result in intersectionality research (Gendered Innovations, n.d.; Grabe, 2020).

Qualitative Methodologies

Qualitative methodologies are widely accepted by researchers focused on social identity and intersectionality (Rice et al., 2019; Windsong, 2018). The value of qualitative research is the emphasis on the narratives and experiences of individuals (Griffith et al., 2017). A qualitative descriptive approach might be particularly useful in

remaining close to the data and promoting the voices of the communities of interest when developing interventions or working with Millennial caregiver communities to develop research goals (Gendered Innovations, n.d.). Grounded theory can contribute to understanding the psychosocial processes of navigating complex identity and caregiving or structures of power and oppression impacting Millennials' caregiving experiences. Phenomenology is useful for understanding the lived experience of individuals, and therefore might add greater depth to research focused on how caregiving impacts complex identity in Millennials or how care outcomes and inequities have impacted Millennial caregivers with intersecting identities (Griffith et al., 2017).

Quantitative Methodologies

For quantitative methods addressing complex identity and intersectionality, advanced modeling strategies are needed including: latent class analysis, structural equation modeling (SEM), and robust mediation/moderation models. Latent class analysis is useful in understanding groupings of characteristics and outcomes related to these groupings (Bauer et al., 2021). Structural equation modeling is useful for model testing and the use of latent variables to represent observed variables. With large enough sample sizes, SEM can test complex models that would be helpful for understanding both complex identity and health inequities (Bauer et al., 2021). Andrew Hayes (2022) has developed PROCESS, a software macro to facilitate robust mediation and moderation analyses. Individual and contextual factors can be examined using these models to both understand complex identity in Millennial caregivers and health outcomes for diverse Millennial caregivers. For intersectionality and health disparities specifically, Cook et al. (2012) also recommend the following strategies that align with

the definition of disparities proposed in the Institute of Medicine (IOM) Unequal Treatment report (disparities are differences in services received by two groups that are not due to underlying health care needs or group preferences): reduced covariate model, propensity score method, rank and replace method, and propensity score with rank and replace method. Mixed methods approaches are also valuable in unpacking quantitative findings with qualitative contextual analysis (Gendered Innovations, n.d.).

Specific Research Examples

Financial Well-Being and Intersectionality Financial well-being in Millennial family caregivers is an example that lends itself to an intersectionality lens. This issue cannot be fully explored without a deep understanding of the historical and structural power issues related to wealth, healthcare access, and social capital (Jorgensen, n.d.; Schulz & Eden, 2016). For example, Black American Millennials are more likely to experience substantial student debt (Lusardi, 2019). It is important to address this issue with an understanding of generational wealth, predatory lending practices, and for-profit educational institutions that have targeted this group (Lusardi, 2019; Jorgensen, n.d.; Vespa, 2017). In addition, female and minoritized individuals are less likely to be employed in positions that have FMLA protections (Schulz & Eden, 2016). This again relates to historical and structural power issues. There can be individual-level Millennial caregiver interventions with education, financial counseling, legal advocacy, and resource provision, but there are broader organizational and policy issues that need to be addressed at the systems level to address structural and historical power (Jorgensen, n.d.).

Psychosocial Phenotyping and Intervention Personalization Psychosocial phenotyping, a representation of individuals based on psychological (e.g., identity-related) and social determinants of health, has been proposed by Kim and colleagues (2021) as a way to promote intervention personalization. Psychosocial phenotyping is a way to identify behavioral and psychological expressions that impact how individuals respond to interventions. While methods to identify psychosocial phenotypes have not been fully established, Kim et al. (2021) recommend the use of theoretical models (ecological model, precede-proceed model, and the chronic care model) to help build phenotypes and interventions; and integration of psychological, behavioral, environmental, social, cultural, and biological determinants in building precision models for intervention delivery. The use of technology-based data collection tools, such as smart devices, and machine learning for advanced data analytic techniques can be powerful tools to facilitate psychosocial phenotyping (Kim et al., 2021). However, it is imperative that individuals and communities of interest are included throughout the process of developing psychosocial phenotypes to reduce the risk of implicit bias.

Nurses as Family Caregivers: A Mixed Methods Study A mixed-methods study is currently underway that examines dual role caregivers—those who are both nurses (professional caregivers) and family caregivers. This study is using qualitative interviews from diverse dual role caregivers (race, ethnicity, gender identity, sexual orientation, education, and economic status) to understand the emotional and financial well-being of this group. In addition, survey data is being collected to triangulate with interview data. This approach is addressing complex identity within the caregiving role to understand how to support this caregiving group.

Iterative Intervention Development for Complex Identity We propose an iterative intervention development process that addresses Millennial caregiver identities, and provides tailoring to the multitude of identities of these caregivers. We have started this process through qualitative interviews with a broad population of Millennial caregivers to develop a stress and emotional regulation intervention that is theory- and research-based and community-informed. In addition, we will tailor this intervention in a step-wise approach through additional qualitative work and quantitative testing to address diverse needs across gender identity, race, ethnicity, sexual orientation, religion and spirituality, class, and other perspectives. The outcomes of this intervention will be examined both qualitatively and quantitatively to understand impact across complex Millennial caregiver identities. The ultimate goal is that each caregiver will receive an intervention that aligns with their complex identity and needs.

Impact to Nursing Science

There are many compelling opportunities for nursing scientists involved in family caregiving research who will be addressing the needs of Millennial caregivers in the coming years. First, the movement to focus on social determinants of health and health equity has been identified as a funding priority with the National Institute of Nursing Research in the United States. Tailoring research to support complex identities and asking research questions that address structural forces impacting health equity in Millennial caregivers aligns well with this funding priority. Second, lessons learned through addressing complex identity and intersectionality in Millennial caregivers can be used to examine these concepts among other family caregiving groups through additional research, policy development that acknowledges diverse identities and

systemic issues that lead to inequity, and changes to practice that can improve personalized and equitable care. Third, Millennial caregivers are a growing cohort of adult family caregivers, and they will quickly become the largest cohort within that population. They have important individual and social contexts that impact their caregiving experiences, including complex identity and intersectionality (Blinded for Review, 2021; NAC, 2020). Research designed for Millennial caregivers will benefit from understanding these concepts and incorporating the research principles or approaches we have described above.

Limitations

We recognize that there are limitations to the discussion and position points that we have described in this paper. We have identified a research gap with known issues, yet the methodologies and examples of research are still evolving. The purpose of this paper was to create a starting point from which to move research forward.

Conclusion

Millennial caregivers are fundamental to the support of individuals with chronic health conditions. They are uniquely positioned generationally, developmentally, and historically to benefit from research approaches that address complex identity and intersectionality. Both complex identity and intersectionality acknowledge their diverse experiences and needs, but intersectionality also highlights forces of power and oppression. Nursing scientists who utilize research approaches that include these perspectives can transform the wellbeing of Millennial caregivers by meaningful intervention tailoring, person-focused care-delivery, and policy development.

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Table 1: Research Strategies to Address Complex Identity and Intersectionality

Strategy Category	Strategies
Global Strategies	<ul style="list-style-type: none"> • Use community engaged research approaches throughout the research process. • Prioritize equity throughout the data value chain—who has helped identify which data to collect, who is doing the data analysis, how is data influencing policy, and how is inequality being measured. • Promote standardized, safe, and inclusive institutional data systems. • Support a diverse and inclusive workforce and ensure fair compensation.
Theory Application	<ul style="list-style-type: none"> • Critical Race Theory • Minority Stress • Acknowledging the role of the environment (including racism, stigma, discrimination) on stress experiences of caregivers
Demographics	<ul style="list-style-type: none"> • Prepare demographic questions with intention—think carefully about content, placement, and length of demographics • Inclusive choices, open-ended responses, and not forcing responses for demographic questions • Visualizing data with heat maps or quilt plots • Analyzing large demographic datasets with natural language processing/machine learning • Disaggregating data to understand subgroups, such as ethnicities within AAPI populations
Qualitative/Quantitative General Principles	<ul style="list-style-type: none"> • Research reflexivity—understanding one’s own position • Including communities of interest in the research process • Ensuring methodologies align with research purpose
Qualitative Approaches	<ul style="list-style-type: none"> • Qualitative descriptive approaches to stay close to the data and center caregiver voices • Grounded theory methodology to understand psychosocial processes of complex identity or power structures and caregiving • Phenomenology to examine lived experiences related to identity and intersectionality

Quantitative Approaches	<ul style="list-style-type: none">• Latent class analysis to outline group characteristics and outcomes• Structural equation modeling for complex relationships and the use of latent variables• Mediation/moderation for individual and contextual variables• Reduced covariate, propensity score, rank and replace, and combined propensity and rank and replace models to understand health disparities
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