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Autism spectrum disorder and the science of social work: A grand challenge for social work research

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ABSTRACT

The social work profession has not yet taken a leadership role in addressing the myriad of challenges that individuals on the autism spectrum encounter across the lifespan. In this essay, we argue that social workers are well equipped to engage in research and practice aimed at promoting full and meaningful inclusion in society, as well as social and economic justice, for individuals on the autism spectrum. We highlight short- and long-term goals that provide the social work profession with a framework to engage in research, practice, education, and advocacy aimed at supporting individuals on the autism spectrum and their families.

KEYWORDS

Autism; disability; grand challenges; social work

Aligned with a deep-seated commitment to social justice, the contemporary mission of the social work profession is to increase opportunity and inclusion for the most vulnerable among us. Social work researchers support this mission by harnessing a set of methodologies and theoretical frameworks aimed at promoting human and societal change, both broadly and for specific vulnerable populations (Brekke, 2012). Recently, the field coalesced around the American Academy of Social Work and Social Welfare's (AASWSW) Grand Challenges initiative to use the science of social work to drive social progress (<http://aaswsw.org/grand-challenges-initiative/>). The AASWSW defines Grand Challenges as “ambitious yet achievable goals for society that mobilize the profession, capture the public's imagination and require innovation and breakthroughs in science and practice to achieve” (Uehara et al., 2013, p. 165). The AASWSW Grand Challenges include a set of 12 broad challenges that represent the most compelling and critical contemporary issues (Uehara et al., 2014). Notably, while several of these Grand Challenges—including “eradicate social isolation”; “build financial capability for all”; and “advance long and productive lives,” among others—could apply to people on the autism spectrum, we were unable to identify any specific language or working papers about people on the autism

spectrum in the AASWSW literature. This is troubling given that a recent National Association of Social Workers (NASW) report found that 75% of clinical social workers work with people with developmental disabilities during their careers (NASW, 2006).

In this article, we highlight the contributions of social work research to date that increase the field's knowledge about autism spectrum disorder (ASD).¹ Using a life course perspective, we argue that the social work profession must make a commitment to engage in research in order to educate a workforce prepared to advocate for a more just and inclusive society for individuals on the autism spectrum. Social workers who support individuals on the autism spectrum and their families engage in research, practice, education, and advocacy aimed at supporting individuals on the spectrum and their families, and to help communities enhance their awareness. By extension, social work researchers have a key role in investigating the diverse experiences of people on the spectrum, with an eye towards developing and testing a continuum of multi-systemic interventions, confronting social injustices, and promoting the full and meaningful inclusion in society for those on the autism spectrum.

Characteristics and prevalence of autism spectrum disorder

ASD is a heritable neurodevelopmental disability that is characterized by delayed or inconsistent development in social interaction and communication and a restricted repertoire of activity and interests. ASD is diagnosed by observing behavioral manifestations outlined in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013). Although researchers suspect that biomarkers for ASD exist, there are currently no biomarkers that can be used to diagnose or screen for ASD (Miles, 2011).

The prevalence of ASD is currently estimated to be 1 in 59 children in the United States (Baio et al., 2018). This figure represents a 151% increase since the Centers for Disease Control and Prevention (CDC) first began to monitor the prevalence of ASD in 2000 (Christensen et al., 2016). Scientists believe that increased prevalence can be explained, in part, by changes in diagnostic criteria, diagnostic substitution, improved awareness in the general public, and increased recognition by clinicians (Hansen, Schendel, & Parner, 2015;

¹There is no single, universally accepted language to describe ASD among autistic people, their families, and professionals (Kenny et al., 2016). Although the broader literature typically uses the term ASD, we use the term "autism spectrum" when referring to individuals with ASD, and "ASD" when referring to the specific diagnosis in order to: 1) recognize the particular strengths of individuals on the spectrum in line with a positive health approach; 2) acknowledge variations of human behavior that should be embraced by society; and 3) attend to individuals' desires to be accepted and appreciated, not necessarily cured of a "disorder." We also acknowledge that individual preferences around language use are as heterogeneous as individuals on the autism spectrum, in that some individuals prefer to identify with identity first language (e.g., "autistic adult") while others prefer person-first language (e.g., "adult with autism"), and these opinions also differ among families and professionals (Kenny et al., 2016).

Newschaffer et al., 2007; Shattuck, 2006). One social work study posits that the increase in prevalence of ASD is partly related to diagnostic substitution, or the idea that the same child who was identified as having another developmental disability (i.e., intellectual disability) in the past is now identified as having ASD (Shattuck, 2006). In addition, a small proportion in the increase in prevalence of ASD may be explained by environmental risk factors. For example, advanced paternal and maternal age and exogenous prenatal risks (e.g., toxic chemicals, the use of valproate) may operate through complex gene-environment interactions during the perinatal period, although specific causal mechanisms remain unclear (Mandy & Lai, 2016). Moreover, no evidence exists that vaccination is a postnatal risk for ASD (Mandy & Lai, 2016), and the publisher retracted prior research on the link between childhood vaccination and ASD because of scientific misconduct (Godlee, Smith, & Marcovitch, 2011).

The impact of autism spectrum disorder on families

The presence of one or more children on the autism spectrum within a family impacts parents and siblings. In this section, we describe the positive and negative effects on parents and siblings of individuals on the autism spectrum.

Impact on parents

Recent meta-analyses and meta-syntheses support that parents of children on the autism spectrum experience greater parenting stress compared to typically-developing children and children with other disabilities. This heightened stress is frequently related to the challenges of caring for their child's needs (Hayes & Watson, 2013; Ooi, Ong, Jacob, & Khan, 2016). The long diagnostic process that often couples ASD is a common stressor for parents with children on the autism spectrum. Specifically, it can take multiple years between initial screening for ASD and diagnosis by a professional (Crane et al., 2016) and many parents experience disbelief, denial, and a lack of understanding about ASD during this diagnostic waiting period (Ooi et al., 2016). On a positive note, some parents express relief at the time of diagnosis when they are able to access supportive services (Ooi et al., 2016). Research generally identifies this sense of relief among middle class White parents who have done research on ASD and were seeking a diagnosis but struggled with convincing healthcare providers (Lopez, Magaña, Xu, & Guzman, 2018; Singh, 2016). However, there is evidence to suggest that relief following diagnoses is not generalizable across populations. In contrast, Latino immigrant parents experienced guilt and negative affect after learning about their child's diagnosis (Lopez et al., 2018). These mothers reported that they never

heard of ASD before their child was diagnosed, and thus the diagnosis was a surprise to them. Adding another layer of stress, African American parents report experiencing discrimination by healthcare providers who are often stereotyped by others as on Medicaid, poor, and single parents (Burkett, Morris, Manning-Courtney, Anthony, & Shambley-Ebron, 2015; Dababnah, Shaia, Campion, & Nichols, 2018).

Another major source of stress (or some describe it as parental distress) are child challenging behaviors. Evidence suggests that children's challenging behaviors and parents' stress is bidirectionally impactful in the parent-child relationship. Thus, heightened parental distress may lead to more challenging behaviors, making intervention to reduce challenging behaviors and parental stress a complex reciprocal relationship (Ooi et al., 2016; Orsmond, Seltzer, Krauss, & Hong, 2003; Van Steijn, Oerlemans, Van Aken, Buitelaar, & Rommelse, 2014; Weiss, Cappadocia, MacMullin, Viecili, & Lunskey, 2012). For example, parents of children on the autism spectrum often report strained marriages, social isolation, financial strain due to lost wages and additional costs of services, and challenges with adapting family life to meet the unique needs of their child (Hartley et al., 2010; Ooi et al., 2016). Children on the autism spectrum report intense and frequent depressive symptoms and anxiety compared to typically-developing peers. Evidence suggests that children on the autism spectrum's symptoms of depression and anxiety are related to parental stress (Falk, Norris, & Quinn, 2014; Magaña & Smith, 2006). Moreover, factors such as high levels of social support, spirituality, and optimism and positive perceptions of the child on the autism spectrum may contribute to parental well-being (Ekas & Lickenbrock, 2010; Salkas, Magaña, Marques, & Mirza, 2016; Timmons, Ekas, & Johnson, 2017).

Emerging research identifies several positive outcomes of having a child on the autism spectrum, which align with social work's emphasis on recognizing the strengths of individuals and families. Parents have reported positive experiences with and feelings about their child on the autism spectrum. Qualitative studies find that parents of children on the autism spectrum report increased gratitude for what is important in life, increased appreciation of the importance of respecting and accepting others, and increased understanding of themselves (King et al., 2006; Ooi et al., 2016). Parents may also take on new and rewarding advocacy roles as a result of their child's diagnosis (McCabe, 2007). Research on parents of children with ASD from culturally diverse backgrounds has emphasized spirituality, positive perceptions, and advocacy. Both Latina mothers and Muslim American mothers from South Asia reported being blessed by God or Allah to raise a child with ASD (Jegatheesan, Miller, & Fowler, 2010; Salkas et al., 2016). African American mothers actively engage in advocacy, training and educating others, and focus on developing self-help skills of their children to counter

the discrimination they perceive their child will experience (Burkett et al., 2015; Evans, Feit, & Trent, 2016). Thus, although parents experience high levels of parenting stress, they simultaneously report having positive experiences with and feelings about their child on the autism spectrum.

Impact on siblings

Similar to parents, siblings of individuals on the autism spectrum report positive and negative experiences. For example, siblings commonly report experiencing challenges during childhood due to their brother or sister's unpredictable behavior or increased parental attention focused on their brother or sister. Meanwhile, other siblings report feeling embarrassed by their brother or sister's behavior in public (Orsmond & Seltzer, 2007; Petalas, Hastings, Nash, Dowey, & Reilly, 2009). While there is limited research on siblings from culturally diverse families, a study of Latino siblings found that siblings were actively involved in helping to care for their sibling with disabilities, and described restricted opportunities to engage with their peers (Kao, Romero-Bosch, Plante, & Lobato, 2012). However, siblings commonly report many positive experiences of having a brother or sister on the autism spectrum, including being more accepting, appreciating the positive qualities of their brother or sister, and remembering positive sibling interactions (Orsmond & Seltzer, 2007; Petalas et al., 2009).

Injustice and disparities among people on the autism spectrum

In this section, we examine historical and current forms of social and economic injustice experienced by people on the autism spectrum over the life course, including institutionalization, social isolation, treatments geared at “curing” ASD, poverty, and racial and socioeconomic disparities. We then discuss disparities related to race and ethnicity.

Social and economic injustice

Historically, most individuals on the autism spectrum spent their lives in asylums (similar to individuals with intellectual disabilities) until widespread deinstitutionalization in the 1980s and 1990s occurred in the United States (Eisenberg, 1956; Silberman, 2015). Within asylums, individuals on the autism spectrum received care that ranged from generally ineffective (psychodynamic therapy) to outright harmful (frontal lobotomies), and many experienced severe physical and psychological abuse within these institutions (Silberman, 2015). In several U.S. states, institutionalized people on the autism spectrum experienced forced sterilization and were subjected to medical experimentation (Silberman, 2015). For those families who chose

to care for their children on the autism spectrum at home, publicly funded services were generally unavailable until the 1980s with the passage of the Medicaid Home and Community-Based Waiver Program (Shattuck & Grosse, 2007).

Currently, although the vast majority of people on the autism spectrum live with their families or in community-based settings from childhood well into adulthood (Bishop-Fitzpatrick et al., 2016; Howlin & Magiati, 2017), they still experience high levels of social and economic injustice throughout the life course. In childhood, many youth on the autism spectrum lack access to needed services (Yingling, Hock et al. 2018; Yingling, Hock, Cohen, & McCaslin, 2017), including early diagnosis and intervention (Shattuck et al., 2009). Additionally, these children often feel socially isolated due to difficulties with social interaction and less companionship with and acceptance by friends (Chamberlain, Kasari, & Rotheram-Fuller, 2007), and many perform poorly in school (Mayes & Calhoun, 2003). In adulthood, most adults on the autism spectrum continue to be socially isolated (Bishop-Fitzpatrick, Mazefsky, & Eack, 2017; Howlin & Magiati, 2017), and the vast majority struggle to sustain competitive employment (Bishop-Fitzpatrick et al., 2016; Taylor, Henninger, & Mailick, 2015). Adults on the autism spectrum are also frequently excluded from full participation in their communities and may be particularly isolated when others are not accepting of their behaviors and interests (Sosnowy, Silverman, Shattuck, & Garfield, 2018). In old age, individuals on the autism spectrum may experience further social isolation after parents die and support roles shift to siblings or the social welfare system (Piven & Rabins, 2011).

Although individuals on the autism spectrum experience social injustice throughout life, they also bring neurodiversity to society that enriches the communities in which they live (Jaarsma & Welin, 2012). Some of society's most important "change makers" include individuals speculated to be on the autism spectrum (e.g., Albert Einstein, Thomas Jefferson, Amadeus Mozart). Further, people on the autism spectrum play important roles in advocacy for others on the autism spectrum. Individual advocates such as Temple Grandin and John Elder Robison, as well as organizations such as the Autistic Self-Advocacy Network, staunchly support greater understanding, acceptance, and inclusion of people on the autism spectrum (Grandin, 1995; Ne'eman, 2010; Robison, 2018).

Like all people, individuals on the autism spectrum live lives that are inherently valuable and offer diverse strengths to society. For instance, many people on the autism spectrum excel in tasks that require systematic thinking and repetition (Baron-Cohen et al., 1999). Some authors maintain that those on the spectrum may have skills and learning advantages in our computer-based culture (Blume, 1997); thus, hiring them may give businesses a competitive advantage because of their technology-related skills

(Austin & Pisano, 2017; Vogus & Taylor, 2018). Qualitative research with the families of people on the autism spectrum also highlight the many ways in which people on the spectrum enrich their lives, including providing a source of happiness and inspiration (Timmons et al., 2017). However, these strengths may be unrecognized by society, given the deficits-based representation of people on the autism spectrum in print and television news media (Jones & Harwood, 2009; Kang, 2013; O Malley-Keighran & Coleman, 2014; Wolbring & Mosig, 2017), which may lead to decreased social opportunities that further social isolation.

Some individuals on the autism spectrum view research geared at finding a cure as perpetuating discrimination against people on the autism spectrum (Kenny et al., 2016; Pellicano, Dinsmore, & Charman, 2014). Similarly, many people on the autism spectrum view interventions as discriminatory if the interventions focus on changing the individual behavior of people on the autism spectrum rather than changing society (Kenny et al., 2016; Pellicano et al., 2014). Indeed, the vast majority of current evidence-based interventions and services for ASD throughout the life course—including applied behavior analysis, cognitive behavioral therapies, and many vocational training programs—attempt to change the behavior of individuals on the spectrum to better help them function in society (Bishop-Fitzpatrick, Minshew, & Eack, 2013; Odom, Boyd, Hall, & Hume, 2010; Odom, Collet-Klingenberg, Rogers, & Hatton, 2010; Shattuck et al., 2012), rather than inform society to better include and accommodate people on the autism spectrum. Interventions generally focus on individual-level functioning (Bishop-Fitzpatrick et al., 2013; Odom, Boyd et al., 2010; Odom, Collet-Klingenberg et al., 2010; Shattuck et al., 2012), but do not increase society's acceptance of people on the autism spectrum. This may lead to decreased social opportunities (Pellicano et al., 2014). Interventions that aim to change social systems and that can be effectively implemented in the community have the potential to help increase social inclusion of people on the spectrum. However, the current lack of systems-level, community-relevant interventions represents a substantial gap in the literature that needs to be urgently addressed (Bishop-Fitzpatrick et al., 2013; Pellicano et al., 2014; Warner, Parr, & Cusack, 2018).

People on the autism spectrum also experience economic injustice. Studies have found that throughout life, people on the autism spectrum and their families experience increased financial burden and poverty compared to children with other developmental disabilities or other special healthcare needs (Buescher, Cidav, Knapp, & Mandell, 2014; Cidav, Marcus, & Mandell, 2012; Parish, Rose, & Swaine, 2010). Families of children on the autism spectrum are additionally more likely to have disruptions in childcare that impact parental employment, compared to families of typically developing children or children at high risk of developmental delays (Montes & Halterman, 2008). The increased financial burden of ASD accounts for both

the costs of treatment and for lost productivity for people on the autism spectrum and their parents (Ganz, 2007). Current cost estimates of ASD do not account for the possibility of increased healthcare costs in old age that may result from higher prevalence of physical health problems in midlife and beyond (Bishop-Fitzpatrick et al., 2018; Piven & Rabins, 2011).

Racial and ethnic disparities

Epidemiological research demonstrates that those on the autism spectrum are culturally diverse and represent all socioeconomic strata. Although research identifies racial and socioeconomic inequalities in ASD, there is mixed evidence for these inequalities depending on the specific focus of each study. In a comprehensive review of studies conducted between 1990 and 2012 on disparities in age of ASD diagnosis, Daniels and Mandell (2014) found that White and higher socioeconomic status children received earlier ASD diagnoses. They also found geographic variation in the age of ASD diagnosis, suggesting that local resources and policies around early diagnosis affect the availability of services. This is important because, if diagnosis of ASD is delayed, children on the spectrum miss opportunities for treatment during critical periods of early development. Other research suggests that African American and Latino children are diagnosed later, receive fewer specialty services, and have higher unmet services needs than White children (Ennis-Cole, Durodoye, & Harris, 2013; Magaña, Lopez, Aguinaga, & Morton, 2013; Mandell, Listerud, Levy, & Pinto-Martin, 2002) even though parents from racial/ethnic minority groups and White parents suspect developmental problems in their children at the same age (Magaña et al., 2013). Additionally, even higher socioeconomic status Latino children receive fewer ASD-related specialty services than White children (Magaña, Parish, & Son, 2016). However, when investigating the time lag between ASD diagnosis, waitlist enrollment, and onset of treatment in a public Medicaid program, Yingling et al., (2018) found that race, ethnicity, and neighborhood poverty did not predict the time lag, suggesting that racial and neighborhood-level socioeconomic inequalities may have a greater influence on timing of diagnostic services than treatment services. These mixed findings indicate that further research should seek to understand the nuances and mechanisms behind racial and socioeconomic inequalities in ASD diagnosis and treatment.

Beyond disparities in access to diagnostic and treatment services for ASD, emerging research suggests that individuals on the autism spectrum experience similar or greater physical health problems compared to the general population in almost all areas throughout adulthood (Bishop-Fitzpatrick et al., 2018; Croen et al., 2015). Research also finds a 20–36 year decreased life expectancy in people on the autism spectrum compared to the general

population (Guan & Li, 2017; Hirvikoski et al., 2016). Although research has not explicitly examined the association between racial and socioeconomic disparities and health outcomes in individuals on the autism spectrum (Bishop-Fitzpatrick & Kind, 2017), children on the autism spectrum from racially and/or socioeconomically disadvantaged groups have poorer access to general medical services than children on the autism spectrum who are not from disadvantaged groups (Magaña, Parish, Rose, Timberlake, & Swaine, 2012; Magaña, Parish, & Son, 2015; Parish, Magaña, Rose, Timberlake, & Swaine, 2012). Yet, there are substantial gaps in research aimed at fully characterizing these associations and their mechanisms.

Taken together, this information suggests that people on the autism spectrum are a decidedly vulnerable population who experience substantial social and economic injustice. These social and economic disparities are likely even greater for those individuals on the autism spectrum who are also marginalized because of their race, ethnicity, or socioeconomic status. Given that people on the autism spectrum, and particularly people on the autism spectrum from disadvantaged groups, are a vulnerable population that experiences social and economic injustice, the National Association of Social Workers Code of Ethics ethically obligates social workers to “challenge social injustice” (National Association of Social Workers, 2017) in partnership with people on the autism spectrum and their families. In the next section, we argue, following ethical principles outlined in the Code of Ethics, that social work practitioners and researchers must “pursue social change, particularly with and on behalf of” people on the autism spectrum in a manner that “respect[s] the inherent dignity and worth of the person” on the autism spectrum (NASW, 2017).

The role of social work

Social workers are trained to examine the social and ecological systems that drive social and economic injustice and utilize interventions that can be delivered effectively in communities. Social work values are expressed within our Code of Ethics, which outlines our commitment to social justice and our reliance on person-centered and systems-level thinking. Although other professions share these values, it is the integration of these frameworks that distinguishes our approach to solving social problems from that of other professions. Brekke (2012) argues that social workers seek to understand and foster change in the dynamic factors that contribute to marginalization and disenfranchisement, and to study a range of multi-systemic interventions that can improve well-being. Importantly, social work researchers embrace complexity and do not seek to isolate single variables or constructs for study. Social work researchers instead grounds inquiry in the complex biopsychosocial and person-in-environment perspectives that drive the science of social work. Moreover, the ability to

synthesize across complex systems distinguishes social work research from research conducted within other disciplinary paradigms.

Social work research related to ASD reflects our Code of Ethics and methodological and theoretical frameworks. Social work researchers have made key contributions to autism research, including: (1) the consequences of ASD on individuals and families (e.g., Greenberg, Seltzer, Hong, & Orsmond, 2006; Seltzer et al., 2011; Smith, Greenberg, & Mailick, 2014; Taylor et al., 2015; Woodman, Smith, Greenberg, & Mailick, 2015; see additional research from the Lifespan Family Research Program at the University of Wisconsin-Madison); (2) the financial burden of ASD (Parish & Cloud, 2006; Parish et al., 2010); (3) the use of evidence-based practices to support parents of young children on the autism spectrum (Dababnah & Parish, 2016a, 2016b); (4) the role of social workers in screening young children for ASD (Dababnah, Parish, Turner-Brown, & Hooper, 2011); (5) racial and ethnic disparities (Bishop-Fitzpatrick & Kind, 2017; Lopez, 2014; Magaña et al., 2012); (6) the impact of key life course transitions (Taylor & Seltzer, 2010); (7) health and quality of life in middle-aged and older adults with autism (Bishop-Fitzpatrick et al., 2016, 2018); (8) interventions for adults on the autism spectrum (Eack et al., 2013, 2018; Smith et al., 2015; Smith, Greenberg et al., 2014); and (9) culturally informed and community-inclusive research on interventions for multicultural parents of children with ASD (Magaña, Lopez, De Sayu, & Miranda, 2014; Magaña, Lopez, & Machalicek, 2017).

Five themes unify this social work research related to ASD: (1) addressing trends in the broader field of autism research from a social work lens; (2) examining factors that lead to marginalization and disenfranchisement from a life course perspective; (3) focusing on family systems, and not just individuals on the autism spectrum; (4) highlighting the needs of groups of individuals on the autism spectrum who are more vulnerable, particularly during key life course transitions; and (5) developing and testing scalable interventions that help address the consequences of ASD for individuals on the autism spectrum and their families.

However, there are many more opportunities for social work researchers, educators, and practitioners to work together to purposefully, systematically, and collectively address the biggest challenges facing people on the autism spectrum, their families, and their communities. Specifically, there are significant gaps in the literature in the following two key areas that are relevant to social work research: (1) identifying the causes and consequences of marginalization and disenfranchisement in individuals on the autism spectrum; and (2) developing evidence-based, community-relevant interventions for individuals on the autism spectrum throughout the life course. To address these gaps, social work researchers and practitioners focused on ASD can learn from successful, broad-scale initiatives from related populations.

Social workers have identified and used research-practice partnerships to address several related social problems. For example, after social work researchers identified university-agency partnerships as a strategy for improving recruitment and retention of child welfare staff (Cyphers, 2001), the Title IV-E Child Welfare Training Program created university-agency partnerships to prepare new social workers for the rigors of child welfare practice. In another example, social workers developed Assertive Community Treatment (ACT), a “hospital without walls,” in order to reduce homelessness and re-hospitalization in at-risk individuals with severe and persistent mental illness (Stein & Test, 1980). Social workers also played a central role in establishing an evidence base for ACT, which now enables millions of individuals with severe and persistent mental illness to live in their communities (DeLuca, Moser, & Bond, 2008). Notably, changes in social work education accompanied these initiatives, a strategy that will be necessary to increase the workforce of social workers trained to work with individuals on the autism spectrum.

Increasing workforce capacity is important given that a 2010 study of Master of Social Work (MSW) course content on developmental disabilities within the top 50 schools of social work found that only 18% offered coursework on developmental disabilities, and 6% offered an MSW concentration on developmental disabilities (Laws, Parish, Scheyett, & Egan, 2010). A more recent study found that only 6% of MSW courses within the top 25 schools of social work had disability (including physical, psychiatric, developmental, and learning disabilities) content listed within the course description (Bean & Krcek, 2012). Neither study examined whether MSW students have specific exposure to ASD within their MSW courses. Taken together, this information indicates that MSW-trained social workers have limited exposure to developmental disability or ASD-specific coursework within their graduate training programs.

Charting a course for the future

The AASWSW Grand Challenges initiative created an opportunity for the social work research community to coalesce around goals that, if accomplished, will reduce social and economic injustice and improve human lives. People on the autism spectrum experience substantial social and economic injustices and health disparities. However, the field has limited evidence-based, community-relevant, and systems-level interventions to alleviate the inequalities experienced by people on the autism spectrum. Thus, social work researchers can use the AASWSW Grand Challenges Initiative to join around a set of ambitious, yet achievable, goals to support people on the autism spectrum and their families. Our Grand Challenge to the social work research community is to eliminate the social and economic injustices experienced by

people on the autism spectrum. We believe more research is needed to detect and understand disparities and their consequences before we can effectively intervene to reduce disparities at the individual and systems levels.

We outline three long-term goals (Table 1) that we believe will move the profession closer to eliminating social and economic injustice in people on the autism spectrum. We argue that the common goal of social work research focused on ASD is to determine the causes and consequences of marginalization and disenfranchisement in ASD at multiple levels (Long-Term Goal #1) and to develop and test community-relevant interventions geared at eliminating social and economic injustice for individuals on the autism spectrum (Long-Term Goal #2). It will also be necessary to increase the capacity of the social work profession to best support research, practice, and advocacy aimed at reaching these goals (Long-Term Goal #3).

Table 1. Short- and long-term goals.

| |
|--|
| <i>Long-Term Goal #1:</i> Identify the causes and consequences of social and economic injustice in individuals on the autism spectrum |
| <i>Short-Term Goals:</i> <ol style="list-style-type: none">1. Conduct research that investigates health disparities in individuals on the autism spectrum and their families across the full life course.2. Increase representation of marginalized and disenfranchised groups in social work research focused on individuals on the autism spectrum and their families.3. Include individuals on the autism spectrum and their family members on research teams.4. Create a workgroup that harnesses social work research methodologies to identify the causes and consequences of marginalization in individuals on the autism spectrum and their families. |
| <i>Long-Term Goal #2:</i> Develop evidence-based, community-relevant interventions for individuals on the autism spectrum throughout the life course |
| <i>Short-Term Goals:</i> <ol style="list-style-type: none">1. Focus social work research on the development of interdisciplinary interventions that can feasibly improve quality of life and community functioning for diverse groups of individuals on the autism spectrum and their families, particularly at the systems level.2. Partner with community-based organizations to adapt and implement current evidence-based interventions within real-world, community settings.3. Create an autism intervention consortium comprised of interdisciplinary researchers and practitioners, as well as individuals on the autism spectrum and their family members. |
| <i>Long-Term Goal #3:</i> Increase the capacity of the social work profession to best support people on the autism spectrum through practice, research, and advocacy |
| <i>Short-Term Goals:</i> <ol style="list-style-type: none">1. Hire faculty within schools of social work whose research focuses on autism spectrum disorder.2. Develop and offer courses on developmental disabilities, including autism spectrum disorder, within BSW and MSW programs.3. Create a mentoring network for social work PhD students focused on autism spectrum disorder.4. Offer continuing education programs on practice and advocacy with people on the autism spectrum for practicing social workers.5. Facilitate participation of social work students in existing, interdisciplinary, disability and autism-specific training programs.6. Develop community partnerships with agencies that serve individuals on the autism spectrum. |

Research conducted that seeks to accomplish these goals should harness the strengths of social work's biopsychosocial and person-in-environment perspectives to synthesize ideas across complex systems, and to bring this crucial perspective to interdisciplinary teams. Importantly, social work research addresses social injustice among the most vulnerable groups of people. People on the autism spectrum, and particularly those individuals who also experience marginalization related to their race, religion, culture, gender identity, or socioeconomic status, are especially vulnerable throughout their life course. Social work practitioners and researchers have a central role in identifying these vulnerable groups to effectively confront social injustice. Finally, we need to provide substantive training on ASD within social work education programs to train future social work practitioners and researchers to address social injustice among individuals on the spectrum. Just as social work courses emphasize the intersection of race and ethnicity across the curriculum, we argue that social work coursework should consider the intersection of disability across the curriculum, as well as in classes dedicated to developmental disabilities generally, and ASD specifically.

Conclusion

Our essay highlights the many contributions of social work research to knowledge about and treatment for ASD. Although mechanisms and solutions are currently unclear, much of the research conducted to date emphasizes that people on the autism spectrum experience a great deal of social and economic injustice throughout their lives. We argue herein that social workers are both equipped and professionally mandated to engage in research and practice that will promote full and meaningful inclusion in society, as well as social and economic justice, for individuals on the autism spectrum. We cannot accomplish this mission without training a workforce prepared to respond to the unique strengths and needs of individuals on the spectrum. The unifying goals for the profession set forth by this essay have the power to use the social work profession's unique perspectives and methodologies to reduce disparities and injustice for people on the autism spectrum and their families.

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