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Special education services for students with disabilities experiencing houselessness: a systematic literature review

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Abstract

This systematic literature review aims to provide a comprehensive picture of the research which documents experiences of school-aged students with disabilities who are houseless in the public education system in the U.S. I use cultural-historical activity theory (CHAT) as a theoretical framework to identify contradictions within and between activity systems (i.e., schools, shelters, families, etc.), all ostensibly committed in supporting these students. According to the National Center for Homeless Education (2020), students with disabilities accounted for 18% of all houseless students in 2020, a 15% increase from the previous school year. While many studies have addressed issues faced by students who are houseless, to our knowledge none have examined the ways in which disability factors into these experiences, especially as students navigate the complexities of being both houseless and disabled. This synthesis has implications for how schools and educators serve students at the intersections of disability and houselessness.

Keywords: students with disabilities; houselessness; special education; cultural-historical activity theory; U.S. public education system

Introduction

Studies show that children and youth are among the most vulnerable populations experiencing housing instability (Collins et al., 2018; Hagan & McCarthy, 2005; Sullivan-Walker et al., 2017). According to the National Center for Homeless Education (NCHE, 2020), students with disabilities accounted for 18% of all students experiencing houselessness in 2020, a 15% increase from the previous school year. Previous systematic reviews have focused on the adverse social, emotional, physical, and cognitive outcomes of houselessness in students (Bassuk et al., 2014; Buckner, 2008; Rybski & Israel, 2019). Existing studies exploring houselessness and children with disabilities primarily center examining federal laws and policies safeguarding educational rights (Gargiulo, 2006; Sullivan-walker et al., 2017; Walter-Thomas et al., 1996). Despite research indicating a higher risk of houselessness among students with disabilities compared to their non-disabled peers (Bock et al., 2023; Rubenstein, 2022), there remains a systemic invisibility regarding the specific intersections of disability and homelessness within educational research (Collins et al., 2018).

Previous systematic reviews on children in houseless circumstances and their educational experiences in schools focus on factors associated with housing instability on academic performance and behavioral outcomes. For example, Manfra (2019) found that young children in houselessness circumstances experienced struggles in school readiness skills and academic achievement compared to their housed peers. Similarly, Gultekin et al. (2020) demonstrated that students experiencing houselessness face increased risks of poor physical, mental, and behavioral health risks, which are associated with low academic performance, social behaviors, and bullying within school environments. None of the previous literature reviews addressed students with disabilities experiencing houselessness, leaving their unique challenges in schools largely unrecognized.

Despite the rising number of students experiencing houselessness who also have disabilities, educators and researchers do not often consider the complexities and urgency of the issues these students confront (Sullivan-Walker et al., 2017). For example, little is known about their accesses to special education services, the impact of housing instability on educational and relevant service delivery, and the best practices and barriers in serving students with disabilities experiencing houselessness in public schools. Understanding the systemic challenges faced by these students and their educators and families can help better serve this unique but underexplored student population. In addition, this examination would help future researchers identify a clear research agenda to develop effective strategies to support students with disabilities experiencing houselessness.

This systematic literature review aims to examine the existing research on school-aged students with disabilities who are experiencing houselessness. I use cultural-historical activity theory (CHAT) as a theoretical framework to identify contradictions within and between activity systems—such as schools, shelters, and families—which are groups of people consistently working toward the shared goal of providing timely special education services to students with disabilities experiencing houselessness. According to CHAT, systemic contradictions represent structural tensions, dilemmas, and conflicts that have been historically and culturally compounded, emerging within and among activity systems with a shared object (Engeström, 2009; Sannino & Engeström, 2018). Drawing

upon CHAT, ultimately, this study addresses the following research question: What do the contractions/tensions among activity systems that seek to support students with disabilities experiencing houselessness reveal about the nature of services offered?

The McKinney-Vento Act and the Education for Homeless Children and Youth Program

The Stewart B. McKinney Homeless Assistance Act (The McKinney-Vento Act) was signed into law in 1987 to ensure the immediate school enrollment of students with unstable housing (NCHE, 2021a). This Act was amended in 1990 to remove any enrollment barriers and provide support for students experiencing houselessness to achieve academic success (NCHE, 2021a). In 2001, the McKinney-Vento Act was reauthorized alongside the No Child Left Behind (NCLB) Act, mandating all school districts to appoint a local liaison. Additionally, it required all State Education Agencies (SEAs) and Local Education Agencies (LEAs) to report the number of homeless students to the U.S. Department of Education (NCHE, 2021a; Sulkowski & Joyce-Beaulieu, 2014). Under the McKinney-Vento Act, the Education for Homeless Children and Youth (EHCY) program has served students experiencing houselessness and remains the only federal legislation that directly addresses the education of such students. The services under the EHCY grant can include preschool education, special education, English Language Learners (ELLs) program, after-school care, and vocational education at the discretion of each state (Walter-Thomas et al., 1996).

The Subtitle VII-B of the McKinney-Vento Homeless Assistance Act defines houselessness as the lack of a stable nighttime residence, living in inadequate temporary accommodations such as emergency shelters, public spaces, or substandard housing, or experiencing migratory circumstances (42 U.S.C. § 11431 et seq.). In this paper, I conceptualize houselessness not as isolated individual issues tied solely to unstable housing but as a byproduct of historically and culturally rooted contradictions associated with race/ethnicity, socioeconomic status, disability within the context of a society characterized by racialized, ableist, neoliberal capitalist ideologies such as racialized housing policies and a history of redlining and segregation (Blasi, 1994). Therefore, it is critical to situate houselessness as a historically, sociologically, and culturally situated issue that calls for a thorough investigation within and between activity systems which aim to support this population. In addition, although the term ‘homelessness’ is used in the official legal and policy documents, I intentionally use ‘houselessness’ to acknowledge that this condition refers to temporary circumstances without physical housing. The sense of home means beyond physical space where people draw strengths and rest with families and friends (Kidd & Evans, 2011). It includes community, social connections, and memories with loved ones (Zakharova, 2022). In this sense, while some people may find challenges in securing a stable physical house, everyone has a home (Zakharova, 2022). Therefore, I deliberately use ‘houseless’ and ‘houselessness’ to move away from the deficit-oriented societal bias and towards an asset-based understanding of individuals experiencing temporary housing instability.

Conceptual Framework

This study used cultural historical activity theory (CHAT) as a framework to understand the systemic contractions among multiple systems that support students with disabilities experiencing homelessness. The foundational principle of CHAT is that the human mind is situated within activities as individuals engage with the world through shared cultural artifacts, signs, and tools (Sannino & Engeström, 2018). This theory shifts the focus from the internal processes within individuals to the interactions among human beings, objects, and the tools they employ as they engage in proactively transforming the conditions under which activities take place (Smardon, 2009). Thus, our understanding of issues, such as persistent inequities in society, become manifest through actions within collective activities in which individuals actively engage in the world, utilizing their cultural artifacts (Sannino & Engeström, 2018). For instance, the rise in the number of individuals facing unstable housing can be attributed to systemic barriers, such as inadequate funding for supported housing. This issue is elucidated by examining tools like city budgets, which allow for the tracking of how funding is allocated by actors such as policymakers. Drawing upon this foundational premise, individuals' activities are explained within the bounds of their cultural milieu and what they value, which create and utilize cultural artifacts (Engeström, 2001). All forms of human activities are goal-oriented and socially mediated, rather than being reducible to mere behaviors that occur within a social context (Engeström, 1987; Engeström, 2001). Meaning that, activity systems like schools have a goal of ensuring students meet academic outcomes, but these outcomes are shaped by curriculum and teaching, and other factors that are unique to each socio historical and political context. Briefly, CHAT takes an activity system - such as family, school, shelter, community - as the unit of analysis to explore how social actors engage in culturally mediated collective activities (Engeström & Sannino, 2010). Figure 1 illustrates the core components of an activity system, subject (e.g., special education teachers, parents, students, caseworkers, and community service providers), object (e.g., timely and appropriate special education and equitable learning opportunities for students with disabilities experiencing homelessness), mediating artifacts (e.g., deficit ideology, societal bias), rules (e.g., special education laws, housing policies), division of labor (e.g., school staff, social service providers, teachers, caseworkers), and the community (e.g., policymakers, advocates, neighboring school districts, and NGOs; Engeström, 2016).

CHAT is instrumental in addressing long-standing inequities and fostering equity within educational research, offering a cultural-historical lens to understand human actions in their everyday, material contexts, as it has evolved to address collective needs (Roth, 2006). Historicity is another foundational principle in CHAT, indicating that any motivated and object-oriented action is rooted in a cultural-historical context (Oers, 2002). By emphasizing historicity embedded in every human activity, CHAT asserts that understanding of the historicity within activities is associated with exclusion or inclusion of certain individuals or groups (Sannino & Engeström, 2018). For example, understanding historicity of traditional practices of teachers in special education services and service providers in the shelter system, as well as historical and cultural context of experiencing homelessness of students with disabilities can help identify those who have been historically marginalized and excluded from the social service networks and communities. Furthermore, CHAT empowers researchers to not only identify the root causes of historically and culturally accumulated inequities, but also to engage in activism that proactively changes the conditions sustaining these activities (Roth et al., 2009).

Without historical and contextual understanding, traditional educational research aimed at addressing educational inequities has often failed to critically analyze and foster emancipatory, context-specific changes. Instead, it has resorted to applying technical solutions that are decontextualized, generalized, uncritical, and reductionist rather than embracing complexity as a source for change (Artiles, 2010; Lee, 2011). In contrast, CHAT empowers individuals within an activity system to view themselves as agents of change with the power to transform activity systems in which they are engaged (Lee, 2011). In this sense, CHAT proves invaluable in dealing with complex and persistent inequities within education systems (Jaworski & Potari, 2009).

The activity system interacts with other systems resulting in tensions and contradictions within and between each system (Engeström & Sannino, 2021). Tensions surface when the object of the activity is complex and requires collaborative efforts across multiple systems at multiple levels - schools, locals, and national - as exemplified by the supports provided to students at the intersection of disability and houselessness. The interactions across participating activity systems are critical components of the CHAT framework as contradictions are historically generated and manifest as a form of tension or dilemma (Sannino & Engeström, 2018). CHAT considers contradictions as foundational elements and sources of vitality for tracing its historicity, thereby unveiling historically accumulated yet often invisible forms of intersectional oppressions among activity systems. In addition, contradictions also serve as sources for transformative change and open the 'third space' (Gutierrez et al., 1995) where taken-for-granted hegemony, knowledge, and practices are challenged, negotiated, and opened up possibility for broader societal discussion through authentic dialogue (Forgasz, 2018). By leveraging contradictions as a source of energy, CHAT generates possibilities for seemingly independent and self-sufficient systems to intersect across boundaries, overcome fragmentation, and envision collective solutions for problem-solving. Ultimately, CHAT generates possibilities for an emancipatory, better life through collaboration, reflecting a fundamental methodological stance since its inception (Engeström, 1999; Engeström, 2001; Sannino & Engeström, 2018). CHAT has been effectively applied to address complex social issues like a lack of stable housing, as exemplified by the work of Sannino (2018). In this research, Sannino developed supportive strategies for individuals experiencing houselessness by leveraging the power of collective learning and agency formation within the framework of the Housing First policy. This method seeks to confront and reshape societal perceptions and deficits associated with unstable housing, fostering a future-oriented environment involving non-traditional stakeholders such as Housing First clients, frontline workers, government and local authorities, social workers, healthcare providers, NGOs, civil society actors, and local communities and neighbors from various activity systems. Although educating students with disabilities who are experiencing houselessness inextricably necessitates a multidisciplinary collaborative approach, from identifying root causes to developing solutions, there has been limited research initiative that builds upon CHAT to take on this challenge.

In this systematic literature review, I use CHAT to examine the tensions that occur within and between the public education system, shelter system, family system, and other social service activity systems. Ultimately, this study proposes to uncover historically and culturally accumulated but rarely addressed contradictions in providing timely and meaningful special education services to students with disabilities experiencing houselessness within and across the activity systems.

Methods

For this systematic literature review, I conducted systematic searches in five electronic databases: APA PsycInfo, Education Source, Education Resources Information Center (ERIC), MEDLINE, and CINAHL Plus with Full Text. The publication year was not restricted so that the results could capture the trend of academic discourses on students with disabilities experiencing houselessness over time and glean as much data as possible to fully address the research question. I used the terms ((disability*) or (disabilities*) or (disabled*) or (special needs*)) and ((homelessness*) or (houseless*) or (unstably housed*) or (unhoused*)) and ((education*) or (school*) or (learning*) or (teaching*) or (classroom*) or (education system*) or (student*)). Given the limited attention to students with disabilities experiencing houselessness and the fact that most available publications predominantly focus on analyzing relevant laws and policies associated with access to special education services, I included all types of studies, not just empirical ones. In addition, the literature included where students with disabilities experiencing houselessness were indirectly addressed as one of the subgroups, or where participation in special education was analyzed as one of the control variables, despite a limited focus and interpretation on these aspects. Doctoral dissertations as well as peer-reviewed articles in academic journals were included if it was relevant to the topic of students with disabilities with unstable housing. A total of 655 peer-reviewed academic articles and 34 dissertations were found. After removing the duplicated results, the abstracts of the resulting 517 were reviewed to identify studies for inclusion using the following inclusion criteria:

1. The population should be school-aged (from K to K-12 grade) students with disabilities who are experiencing houselessness, and pre-or in-service special education teachers who work with those students in public schools.
2. Studies must be published in English in a peer-reviewed academic journal or be a doctoral dissertation.
3. Studies can either be empirical (quantitative, qualitative, mixed methods) or conceptual studies.
4. Studies must be conducted in the United States.

After the screening process, a total of 23 studies (10 conceptual studies and 13 empirical studies) were identified for this synthesis review. Figure 2 shows the article search and screening process using the PRISMA framework.

Analytic Coding

I first summarized the descriptive characteristics of the studies to ascertain the topography of the previous studies. The characteristics included publication year, the field of study, type of literature, research design, research method, and sample size. Then I divided studies based on the type of literature.

Then I conducted thematic coding. First, I repeatedly reviewed conceptual studies line by line. Second, I conducted pattern coding and categorized the codes (Miles et al., 2014). Third, I identified the potential themes consistently emerging across the conceptual studies (See Table 1). Next, I analyzed the empirical studies and summarized the major findings, limitations, and discussion as shown in Table 2. Several studies primarily focused on the general student population experiencing houselessness, consequently offering limited insights into the detailed information about students with disabilities with unstable housing. Given the limited data available on this specific population, even partial information—such as the proportion of students with disabilities experiencing houselessness within the houseless student population or among all students, as well as data on academic achievement and behavioral outcomes—can significantly enhance our understanding of students with disabilities experiencing houselessness. Thus, studies were included if they incorporated variables related to enrollment in special education programs or the status of having an Individualized Education Program (IEP), and those that included students with disabilities experiencing houselessness as one of the subgroups or control variables were used in this systematic literature review. By comparing the findings from empirical studies and the codes derived from conceptual studies, I identified the following themes: Bureaucratic Challenges, Fragmented Legislation and Policies, Contradictions in Family-School Collaboration, and the Pathologization of Disability, each pointing to significant unmet needs in special education services.

Researcher Positionality

Researchers' identities, ontological and epistemological orientation inform how they perceive and analyze the data (Corlett & Mavin, 2018). Here, my research positionality, as an able-bodied, first-generation immigrant scholar, is deeply influenced by my identity and my commitment to exploring and addressing the intersections of dis/ability with other marginalized identities. With a focus on challenging systemic invisibility and the compounded marginalization at the nexus of special education and multiple systems—including the juvenile justice system, child welfare system, and housing service system—my work seeks to illuminate and mitigate the complex challenges faced by these communities. Currently, I am engaged in a project aimed at understanding the post-high school experiences of transition-age youths with disabilities facing unstable housing. This project not only seeks to uncover the nuanced realities of these youths but also to establish collaborative research-practice partnerships between schools and communities. The ultimate goal is to foster environments that support the well-being and future success of these individuals, demonstrating a commitment to bridging research with actionable change.

Results

The purpose of this systematic literature review is to examine contradictions/tensions among activity systems that seek to support students with disabilities experiencing houselessness reveal about the nature of services offered in the existing literature. Systemic contradictions are historically and culturally accumulated

structural tensions, dilemmas, and conflicts that manifest within and between activity systems that share a common object (Engeström, 2009; Sannino & Engeström, 2018). In this section, I outline the historically accumulated systemic contradictions within the systems designed to assist students with disabilities experiencing houselessness, highlighting how they inform our understanding of the special education services provided to this population.

Bureaucratic, Fragmented Legislation and Policies

The primary systemic contradiction occurred among the special education system, shelter system, and social welfare system in relation to the ways in which current laws and policies were taken up and practiced. Despite the interconnected nature of these activity systems, which necessitates significant collaboration, such effort did not occur due to the inherent complexity of addressing these students' needs. The laws and policies intended to provide clarity and support instead contributed to confusion, as they were fragmented across discrete systems. This fragmentation failed to recognize the interdependent nature of the activity systems.

Many studies mainly focused on the limitations of the McKinney-Vento Act (Chow et al., 2015; Stone & Uretsky, 2016; Walter-Thomas et al. 1996; Wilder et al., 2003). For example, Stone and Uretsky (2016) used 2,618 students' data in 111 schools across elementary, middle, and high schools in a large urban district in California and examined the school factors associated with the academic achievement of students experiencing houselessness. The analysis found that since the McKinney-Vento Act only specified the school enrollment and transportation, each school applied it with variations and the level of available resources in schools was a key contextual factor in student achievement.

The voluntary application process of the McKinney-Vento Act Education for Homeless Children and Youth (EHCY) grant was also cited (Walter-Thomas et al., 1996; Wilder et al., 2003). Walter-Thomas et al. (1996) focused on the fact that there was no penalty for lack of compliance with the McKinney-Vento Act. Wilder et al. (2003) also noted the school districts' low application rates for McKinney-Vento grants which were only 3% in 1995, were vastly insufficient to comply with the legal mandate.

Furthermore, substantial disparities persisted between policy formulations and their actual compliance at the district level (Gargiulo, 2006; Sullivan-Walker et al., 2017; Wilder et al., 2003). Wilder et al. (2003) discussed delayed records transfer between schools as a major systemic challenge for students with a high transient nature to access special education services. Sullivan-Walker et al. (2017) also cited students' incomplete records and missing paperwork hindered special education evaluation and identification. The McKinney-Vento Act mandates the immediate enrollment of students who are experiencing houselessness regardless of documents normally required for admission. However, this federal mandate was often disregarded, and several schools kept their enrollment policies requiring residency documents, immunization records, and guardianship requirements (Gargiulo, 2006).

Once students successfully enrolled in schools, lengthy referral and evaluation

procedures created another obstacle in accessing special education services (May et al., 1994; Sulkowski & Joyce-Beaulieu, 2014; Russell & Williams, 1988; Zima & Forness, 1987). May et al. (1994) asserted that the time-consuming referral procedure made many students who might have been eligible for special education cross over to different schools in the middle of the process. Zima and Forness (1987) also found that a lengthy IEP timeline for evaluation and placement prohibited homeless children from meeting their educational needs under federal law. Multi-Tiered System of Supports (MTSS), which was originally developed to detect students who might need special education services and provide early intervention, inadvertently prevented adequate assessment of students experiencing houselessness due to the months of intervention periods coupled with students' poor attendance (Sulkowski & Joyce-Beaulieu, 2014).

Lastly, despite efforts to safeguard the educational rights of students experiencing houselessness and students with disabilities, each legislative measure only addressed a fraction of the multifaceted needs that students with disabilities experiencing houselessness may have (Gargiulo, 2006; Williams & DeSander, 1999). It often resulted in inconsistency and conflict with one another (Williams & DeSander, 1999), leaving students at the intersection of houselessness and disability overlooked (Gargiulo, 2006). For instance, the parental permission requirement for record transfer between schools was explicit under the IDEA, but it was not clear under the McKinney-Vento Act. On the other hand, the McKinney-Vento Act strongly emphasized the timely access and transfer of records for students within 30 days, but the IDEA requirement for student record transfer did not specify the timeline and often caused delays in record transfer (Williams & DeSander, 1999).

Contradictions at the Intersection of the Family-School Collaboration

Another prominent systemic contradiction arose from the intersection of the family activity system and the public education activity system where neither was prepared for educating students with disabilities experiencing houselessness. Parents in houselessness frequently encountered challenges in actively participating in their children's education due to the severe adversity they faced under unstable housing and the lack of access to information about available support services (Gargiulo, 2006; Russell & Williams, 1988; Zima et al., 1994). Simultaneously, teachers' deficit-oriented perspectives shaped the way teachers responded to students, exacerbating the existing systemic contradiction between school and family activity systems. For example, Wilder and Obiakor (2003) discussed how teachers' low expectations exacerbated the negative attitudes of students experiencing houselessness toward education and hindered their full participation in school. Sullivan-Walker (2017) also pointed out that teachers tended to only focus on the limitations and needs of students experiencing houselessness, not their resilience and strengths.

Across the studies, houseless students with disabilities were described as the most vulnerable population in schools, generally "at the bottom of the social strata in the public schools" (Wilder et al., 2003, p. 9). Studies have also found that students with disabilities are the subgroup most susceptible to academic failure among those experiencing houselessness (Cowen, 2017; Cutili et al., 2013; Stone & Uretsky, 2016; Tobin, 2016). Stone and Uretsky (2016) examined the academic behaviors of the McKinney-Vento-identified youth in a large urban district in California. The results demonstrated that

students experiencing houselessness who received special education services were more absent and more often suspended from school at a significant level ($p < .001$) than those without disabilities (Stone & Uretsky, 2016). Also, they showed the lowest academic achievement in both reading and math with a 3.91 times higher risk of performing below average in reading and 3.10 times in math compared to students experiencing houselessness without disabilities (Stone & Uretsky, 2016). Patterns of lowest initial achievement in standardized math and reading tests were consistent for other studies (Cowen, 2017; Cutili et al., 2013; Tobin, 2016). This achievement disparity began in 3rd grade, the earliest year taking standardized achievement tests (Cutili et al., 2013), and was significant after controlling demographic variables (Cowen, 2017).

Garcia et al. (2018) investigated the associations between multiple social welfare systems (special education, housing service, behavioral and mental health service, juvenile justice system) utilization and the risk of dropout. The result found that special education system involvement exhibited a 26.7% risk of dropout, but three or more system involvements had a 51.2% risk of dropping out. While the study did not detail the interaction between special education services and various systems, its findings suggest that students with disabilities are at greater risk of falling behind due to their involvement in multiple systems. This involvement could impede their access to timely and appropriate special education services within public education systems.

Furthermore, insufficient resources and professional development training addressing housing-related issues (Chow et al., 2015; May et al., 1994; Russell & Williams, 1988; Sullivan-Walker et al., 2017) led teachers to encounter challenges in identifying and educating students with disabilities who are experiencing houselessness. Chow et al. (2015) conducted semi-structured interviews with elementary school teachers who worked at schools designated for families in houselessness. Findings highlighted that there was little guidance about teachers' roles and responsibilities in the McKinney-Vento Act and limited training for teachers who work with students experiencing houselessness. Over half of the teachers who were interviewed did not receive any training about working with students with disabilities experiencing houselessness and this was associated with them feeling overwhelmed and stressed when they encountered these students (Chow et al., 2015). Without enough resources and professional development opportunities, teachers were confused about whether their academic difficulties were caused by their unstable housing or limited learning opportunities, which further exacerbated the marginalization experienced by students experiencing houselessness within the school system (Sulkowski & Joyce-Beaulieu, 2014; Sullivan-Walker et al., 2017).

With an increasing number of students experiencing houselessness, special educators, and general educators are more likely to encounter students with unstable housing in their classrooms (Sullivan-Walker et al., 2017). However, studies indicated that a limited number of teacher training programs was a barrier (May et al., 1994; Russell & Williams, 1988). Unstable housing issues were rarely addressed in special education teacher education programs at both undergraduate and graduate levels compared to other current social problems (May et al., 1994).

Pathologization of Disability and Unmet Needs for Special Education Services

Lastly, prominent systemic contradictions occurred between the special education system and the shelter system, where both systems pathologized disabilities as a medical issue, not as social, cultural, and historical artifacts. Disability status was assigned based on a medical perspective that primarily focused on diagnosis (Sulkowski & Joyce-Beaulieu, 2014; Sullivan-Walker, 2017; Sullivan-Walker et al., 2017). For example, studies found that focusing on the medical understanding of disability ignored environmental and social factors from the criteria for emotional disturbance (ED) and learning disability (LD) which exacerbated the marginalization of students experiencing houselessness by foreclosing opportunities to receive and appropriate special education services (Sulkowski & Joyce-Beaulieu, 2014; Walter-Thomas et al., 1996). As a result, students experiencing houselessness who can benefit from special education services were under-identified for special education (Sulkowski & Joyce-Beaulieu, 2014; Wilder et al., 2003; Zima et al., 1997).

For example, Zima and Forness (1987) randomly selected 22 emergency family shelters in Los Angeles County and found that 58% of elementary school students experiencing houselessness are qualified for special education with their mental health issues or learning difficulties. Among them, only 23% of students received a special education evaluation. Similarly, Wilder et al. (2003) examined the needs and eligibility of special education services among sheltered children and found that only one in four eligible houseless students actually benefited from receiving special education services. Losinski et al. (2013) also pointed out that their under-identification for special education services resulted in high dropout rates. Sulkowski and Joyce-Beaulieu (2014) concluded that students with disabilities in houselessness experienced academic and social-emotional issues in schools, but they were overlooked for adequate special education evaluation, intervention, and services. On the other hand, several studies reported an overrepresentation of students with disabilities among students experiencing houselessness compared to the overall student population, with the percentage of such students ranging from 3% to 19% (Cowen, 2017; Cutuli et al., 2013; Tobin, 2016).

In terms of the relationship between disability identification and unstable housing, two studies (Bock et al., 2023; Rubenstein, 2022) found that students with disabilities had a higher risk of experiencing houselessness compared to those without disabilities. For instance, Rubenstein et al. (2021) found that students with disabilities were at 1.5 higher risk of experiencing houselessness compared to students without disabilities in Massachusetts. Extending Rubenstein et al.'s (2021) research, Bock et al. (2023) also reported similar findings in seven Northeastern and Mid-Atlantic states.

On the contrary, several studies associated houseless students' disabilities with adverse outcomes stemming from their unhoused status, thereby pathologizing both unstable housing status and disabilities (Losinski et al., 2013; May et al., 1994; Rahman et al., 2015; Walter-Thomas et al., 1996; Zima et al., 1994). For instance, Zima et al. (1994) highlighted the elevated risk of disabilities among houseless students, attributing this to the harsh conditions of street and shelter living, as well as a lack of parental awareness about developmental issues. Among the children identified with at least one emotional or academic problem—constituting 78% of the sample—only one-third of the parents were aware of the issue. Similarly, May et al. (1994) argued that children experiencing

houselessness often qualify for special education services due to the adverse effects of their living situations. Walter-Thomas et al. (1996) also viewed the disabilities of houseless children as a natural consequence of their precarious living conditions, further exacerbating the challenges associated with unstable housing. More recent studies have consistently demonstrated disabilities as outcomes of unstable housing conditions. Rahman et al. (2015) underscored that students experiencing housing instability exhibit significant higher rates of learning disabilities and emotional behavioral issues compared to their housed counterparts. However, this association between unstable housing and disabilities while important, reveals a critical oversight in the literature. Namely, there is a tendency to resolve the complex tension of intersecting needs—such as the educational, emotional, and environmental support for these students—by attributing blame to the students and their families' housing status. This approach pathologizes disabilities linked to precarious living environments and, paradoxically, results in the exclusion of students experiencing houselessness from special education assessments and related services.

Discussion and Implications

This study offers to my knowledge the first systematic literature review on school-aged students with disabilities in unstable housing in the U.S. public education system. By using CHAT as a theoretical framework, the current study situated the multifaceted but persistently unmet needs of students with disabilities experiencing houselessness as byproducts of historically, culturally, and socio-politically accumulated contradictions in our society. Furthermore, this study challenges the dominant discourse that unfairly blames students by pathologizing disabilities and poverty. In other words, the findings illustrate how deeply ingrained ableism, capitalism, and bureaucratic policies mediate public education systems, legislations, and deficit-oriented epistemologies toward houseless students with disabilities, thereby exacerbating their marginalization within society.

Among the selected studies, the findings regarding the complex relationship between disability and houselessness were inconsistent. However, all identified studies agreed that students with disabilities who were experiencing houselessness faced multiple challenges, yet their unique needs remained unmet in schools. This situation arose because the public education system was imbued with ableist and capitalistic ideologies that pathologize both disability and homelessness as issues to be remedied. Consequently, students with disabilities experiencing houselessness were described as the most marginalized population in schools, often found “at the bottom of the social strata in public schools” (Wilder et al., 2003; p. 9). Despite these narratives, adequate support was not consistently provided, and instead, such descriptions were used to pathologize students.

In the face of stigmatization experienced in schools, students experiencing houselessness perceived school as a relatively safe and stable environment with supportive adults and peers (Sullivan-Walker et al., 2017). This perception is especially significant for students with disabilities in houselessness, as attending school itself became an effective solution to receive timely educational services, given their limited access to individualized special education programs (Zima & Forness, 1987). However, teachers

often held a deficit-oriented perspective toward students with disabilities experiencing houselessness, resulting in the ostracization and marginalization of these students in schools (Wilder et al., 2003). This highlights the significance of incorporating the topic of unstable housing issue and related strategies into pre-service teacher education programs and professional development training for in-service teachers. By adopting a strength-based approach, teachers can not only provide timely special education services but also promote socially and culturally meaningful learning for students with disabilities experiencing houselessness.

In addition, it is crucial not to rely solely on teachers' individual fragmented efforts for the successful education of students with disabilities experiencing houselessness. Addressing the critical challenges that require multi-level efforts across various activity systems necessitates collaborative efforts to overcome systemic contradictions and develop solutions. The systemic contradictions drawn from the findings call for open the 'third space' (Gutierrez et al., 1995) where the seemingly independent and self-sufficient systems (public education system, housing service providers, shelters, families experiencing housing instability, other social service providers, etc.) can envision ways in which to better serve houseless students with disabilities (Engeström, 2001; Engeström & Sannino, 2021).

Existing fragmented and bureaucratic policies have consistently resulted in unmet needs for students with disabilities experiencing houselessness, particularly in receiving timely and appropriate special education services. To ensure timely special education services for highly mobile students, it is crucial to modify and accommodate their situations during the disability assessment process through collaboration and coordination between family and school activity systems. These modifications can include expedited disability referral and assessment procedures, interim IEPs for students with disabilities experiencing houselessness, and flexibility in terms of time and location when working with parents to facilitate their participation in schools.

Above all, collaborative efforts among schools, families, and community service providers are necessary to leverage the contradictions as a source for developing locally meaningful solutions that eradicate the historically and culturally rooted problems in fragmented activity systems. For example, schools can take an active role in facilitating the collaboration that traverses the boundaries of activity systems by inviting various stakeholders (i.e., school counselor, school social worker, child welfare workers, juvenile justice personnel, and the local homeless liaison), who are all involved in providing services to students with disabilities in houselessness, to participate in the IEP meetings. Additionally, building collaborative relationships can help in identifying students who are missing from schools while they are on the streets or involved in other systems (i.e., juvenile justice system, hospital, social welfare system, etc.). Schools can also establish a crucial post-secondary transition support team within the community, which is essential for providing the necessary special education and other services that may otherwise be overlooked outside the public education system after graduation.

Lastly, at the policy level, the McKinney-Vento Act EHCY program is the one and only legislation that safeguards the educational rights of houseless students. However, it is important to note that the EHCY program is not mandatory under the law and that federal funding is awarded based on voluntary applications. Walter-Thomas et al. (1996) pointed

out the low EHCY funding application rate was associated with the no penalty for noncompliance. After more than two decades, the McKinney-Vento Act EHCY program remains a voluntary application by states based on their needs for serving students experiencing houselessness without any penalty for not implementing the program. As a consequence, although the application rate has increased due to the influx of students in houselessness over the years, it remains low, not exceeding a quarter (23%) according to the most updated statistics (NCHE, 2021b). This means that many students' unique needs are not identified by schools, and they are also inadequately served by both educational institutions and social services. Thus, the application procedure and conditions should be reconsidered to assure all students who might be eligible for the EHCY program benefit from this grant.

In addition, while the legislation regarding the EHCY grant can be utilized to support special education services for students experiencing houselessness, the majority of these funds focus on school enrollment support. Notably, this legislation does not explicitly address the educational rights or specific available services of the students with disabilities who are experiencing housing instability (Gargiulo, 2006). As each piece of legislation, such as IDEA and McKinney-Vento Act, addresses a segment of the complex needs students may have, it often results in inconsistency and conflict with one another (Williams & DeSander, 1999). Therefore, the coordination of the EHCY programs entitled by the McKinney-Vento Act and the special education services under IDEA becomes imperative to meet the compounded needs of homeless students with disabilities at the intersection of special education services and housing services. It is necessary to reimagine legislation and policy to establish a coherent and comprehensive safety net without holes for students at the intersection of housing instability and disabilities.

Conclusion

Students with disabilities are rapidly increasing and the largest subgroup among students experiencing houselessness enrolled in public schools (NCHE, 2020). Without political, social, or economic power, they have been excluded from the decision-making process that directly impacts their lives (Rahman et al., 2015). Over two decades after the start of this discussion, their voices still remain neglected in schools, policies, and academic discourses. The findings from this study shed light on the critical role of schooling for students with disabilities experiencing houselessness. With limited resources to combat multifaceted challenges, the school was the only safe and stable environment with supportive teachers and peers for most students with disabilities experiencing housing instability (Sullivan-Walker et al., 2017). By leveraging the contradictions that have surfaced in the findings as sources of change, this paper provides possibilities for opening the 'third space' (Gutierrez et al., 1995) that facilitates collective actions transcending the boundaries of activity systems to reimagine support systems in providing timely special education services for students with disabilities experiencing houselessness. With social actors willing to transcend boundaries and engage in authentic dialogue, systemic contradictions can potentially be transformed into sources that enable these actors to become agents of change. This collaborative activism facilitates the creation of an emancipatory activity system for students facing multiple marginalization and sets the foundation for a more inclusive and equitable educational environment for all students.

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Figure 1
The activity system

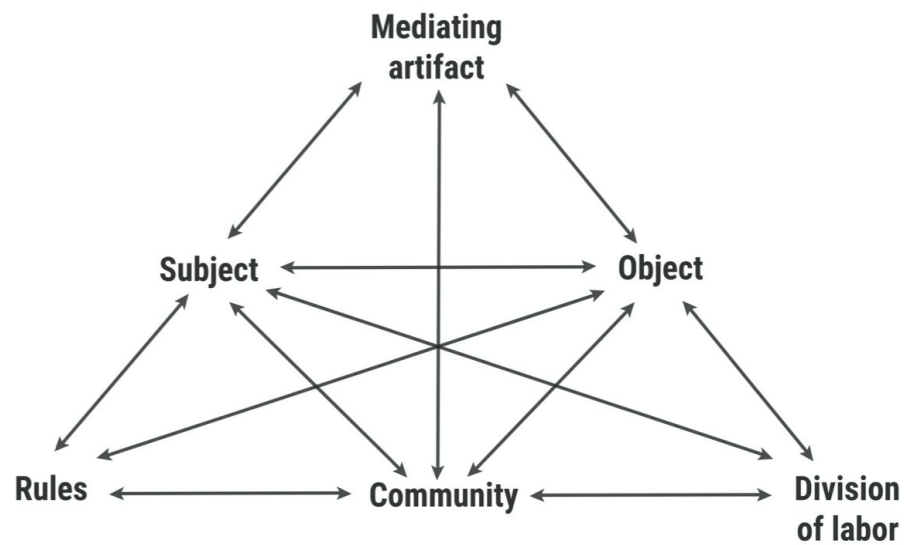
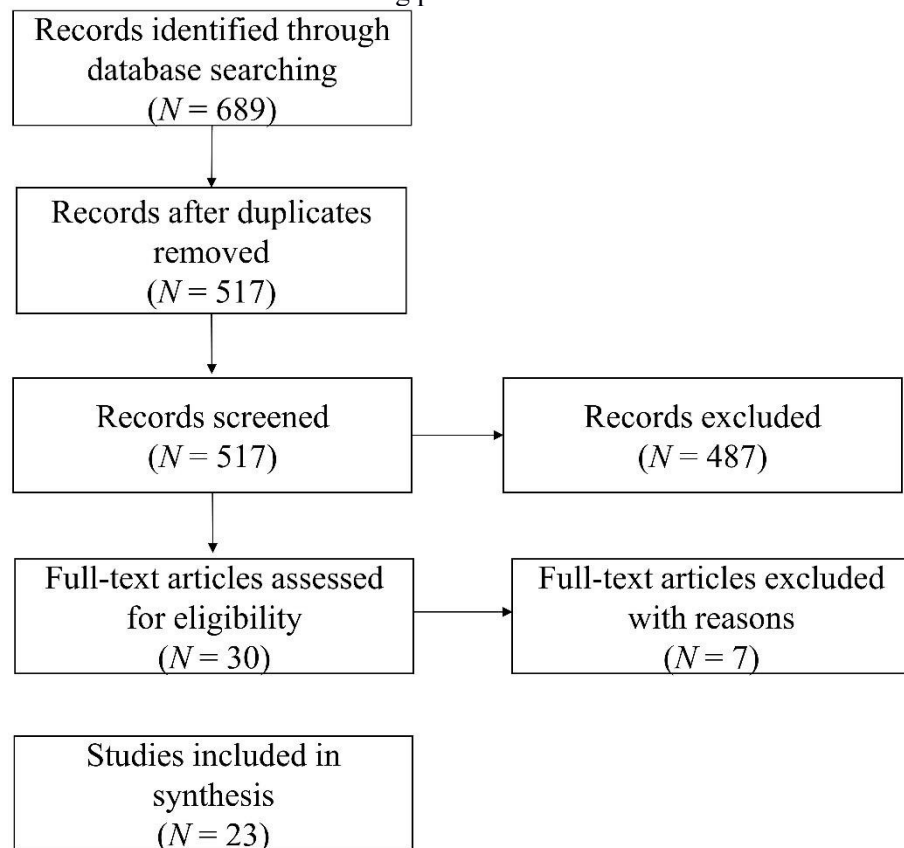


Figure 2

The article searches and screening process



Note. This figure is derived from: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

Table 1. Summary of students with disabilities experiencing homelessness and schooling in previous conceptual research

Author(s), Year	Objectives	Representation of homeless students with disabilities	Contradictions/Tensions
Russell & Williams (1988)	To discuss the current problems and potential solutions to educate homeless students with disabilities.	<ul style="list-style-type: none"> - Homeless children and their disabilities are discussed associated with postnatal and early childhood environments. - Learning disabilities were the largest category homeless students fall into. 	<ul style="list-style-type: none"> - Difficulties in finding homeless students with disabilities, transient students, families' limited access to information, limited number of teacher training programs, the absence of any advocate, parents' limited interest in their child's education, lengthy special education evaluation procedure.
Walter-Thomas et al. (1996)	To highlight the unique needs of students with disabilities in homelessness and federal laws to serve them, and to suggest promising practices	<ul style="list-style-type: none"> - For homeless students, disabilities are discussed as a predictable negative reaction for their living situation, and also as a factor that compounds the challenges, they already have due to homelessness. 	<ul style="list-style-type: none"> - No penalty for noncompliance of McKinney-Vento Act programs. Voluntary application for the McKinney-Vento EHCY, Difficulty in distinguishing the effect of homeless from those of a disabling condition, limited disability criteria.
Williams & DeSander (1999)	To review the federal laws and policies to identify conflicts that create legislative barriers to access education for homeless and other special needs students.	<ul style="list-style-type: none"> - Homeless students with disabilities are excluded from the support systems due to the conflicts among legislations that were designed to address a particular segment of the group of students and not coordinated for students with multiple system involvements. 	<ul style="list-style-type: none"> - Laws intended to protect vulnerable students focused on a particular group of the student, conflicting each other when serving students with multiple needs, limited guidance to coordinate existing statutes and policies, different funding availability and allocation (McKinney-Vento Act: distributed to the school districts, IDEA, Title 1: distributed to students who meet requirements).
Wilder & Obiakor (2003)	To describe the socioeconomic dissonance between teachers and students with disabilities in	<ul style="list-style-type: none"> - Homeless students with disabilities and their parents face multiple challenges in school enrollment without immunization records, special education records, and constantly adjusting to a new school. 	<ul style="list-style-type: none"> - Aggression, violence, other persistent antisocial behavior, substance abuse, sexual activity, teen pregnancy, gang membership, at-risk peer associations, negative attitudes toward education and toward acculturation into school

	homelessness and provide useful teaching practices to reduce risks and build resiliency of those students.	<ul style="list-style-type: none"> - Despite extremely difficult personal challenges, many homeless students with disabilities succeed in school. - Teachers' low expectation towards homeless students with disabilities might be associated with educational failure. 	culture.
Wilder et al. (2003)	To discuss the needs of homeless students with disabilities, and to suggest strategies for school personnel to effectively support those students.	<ul style="list-style-type: none"> - Homeless students with disabilities are the most vulnerable at-risk population in schools. - Homeless students benefit from evaluation for special education services, but less are assessed and only one in four homeless students receive special education. - Homeless students with disabilities' unique and extensive needs in physical, social, emotional, and academic development are too often overlooked and unmet. - Homeless students with disabilities are generally at the bottom of the social strata in the public schools. 	<ul style="list-style-type: none"> - School districts' low application for McKinney-Vento grants (3% in 1995), social isolation and ostracization by peers, Teachers' low expectation, locating special education records from previous school, expediting the assessment and placement before moving to another school.
Gargiulo (2006)	To review the educational rights of children with disabilities in homelessness and provide suggestions for early childhood programs.	<ul style="list-style-type: none"> - Homeless students' disabilities are discussed as consequences of homelessness. - Many children who are homeless also exhibit resilience in academic performance and not all experience academic failure or receive special education. - Homeless students with disabilities are not mentioned with positive outcomes or resilience. 	<ul style="list-style-type: none"> - School enrollment policies requiring residency requirement, immunization records, guardianship requirements, disregard for federal mandate, parents' lack of knowledge about child's educational rights and law.
Losinski et al. (2013)	To describe the legislative efforts to address the education of homeless children with disabilities and provide suggestions in educational practices.	<ul style="list-style-type: none"> - Homeless students' disabilities are discussed associated with adverse effects of homelessness, having higher risk of emotional disturbances, and learning disabilities than housed peers. - Homeless students with disabilities are under identified for special education services and at high risks of dropout rates. - Due to insufficient data collection, it is hard to get an accurate number of children with disabilities who are homeless and need special education. 	<ul style="list-style-type: none"> - Absence of needed special education services, frequent absenteeism, high rates of grade retention, under identification of needed special education services, high level of stigma and social oppression from peers, lack of coping skills, insufficient communication among parents, social service agencies, and LEAs.

<p>Sulkowski & Joyce-Beaulieu (2014)</p>	<p>To provide school community members with practical information and suggestions to support homeless youth with/without disabilities.</p>	<p>- Homeless students with disabilities experience academic and social-emotional problems in their success in school, but do not receive adequate evaluation, intervention, or services.</p>	<p>- Delayed records transfers and special education programming, exclusionary evaluation criteria for LD and ED (lack of learning opportunities, social maladjustment vs. disabilities), transitions across schools, low attendance, long period of intervention of MTSS.</p>
<p>Rahman et al. (2015)</p>	<p>To examine the historical trajectory of U.S. federal policies that address homeless youth with/without disabilities' needs and education.</p>	<p>- Homeless students with disabilities are mentioned with relevant federal laws to protect their educational rights. - Homeless students with disabilities are discussed as a consequence of homelessness (twice the rate of learning disabilities, three times the rate of emotional behavioral problems compared to their house peers).</p>	<p>- No data available whether school-aged homeless youth enrolled in school or not, the Department of Education only counts homeless students who are already in the public schools, services available only up to age 22 for students who are IDEA eligible, if not, 21 is the maximum age limit for receiving special education service, absence of consistent definition of "homeless youth" and age range across 27 different federal entities that administer programs for homeless individual, limited EHCY funds compared to the high number of homeless students, family separation due to a lack of family shelters.</p>
<p>Sullivan-Walker et al. (2017)</p>	<p>To provide practical suggestions to support students with disabilities experiencing homelessness at federal, community, and educator level.</p>	<p>- Homeless students with disabilities have been overlooked in research on homeless children and education.</p>	<p>- Incomplete records, missing paperwork, chronic absenteeism that hinders special education evaluation and identification, ambiguous cause of students' difficulties (disability vs. lack of learning opportunities).</p>

Table 2. Summary of students with disabilities experiencing homelessness and schooling in previous empirical research

Author(s), Year	Design, Sample	Objectives	Dataset, level	Type of analysis	Outcome measures (IV, DV, CV) *	Contradictions/Tensions
Zima & Forness (1987)	Mixed method, N*=287 (118 parents, 169 students)	To describe the special educational needs of sheltered homeless children who are eligible for special education evaluation.	The results of standardized measures of depression, behavioral problems, receptive vocabulary, and reading, 1:1 parents' interview, from 18 emergency family homeless shelters in Los Angeles County in 1991.	Descriptive	IV=Disability type, DV=Lifetime special education evaluation or placement, mental health counseling and treatment past 12 months, routine health care past 6 months, sick or injury care past 6 months	<ul style="list-style-type: none"> - The majority of sheltered homeless children with disabilities have high risks of disabilities, but their needs for special education are unmet. - 58% of elementary school students experiencing homelessness qualified for special education for mental health issues or learning problems. - 23% of students with signs of disabilities received a special education evaluation for placement. - 4 times higher risk of behavioral disorder, 3 times to have signs of a learning disorder, 8 times for mental retardation compared to general housed children.

Tobin (2016)	Quantitative, N*= N/A	To compare academic achievement between homeless students and house low-socioeconomic status elementary school students.	Standardized achievement language arts and mathematics scores from 3rd to 5th grades, from 2007-2009, Education department of a large Northeastern city.	Multiple regression	IV=Homeless, DV= Standardized test scores in language arts and mathematics. CV= Race/ethnicity, participation in the federal free lunch program, special education participation.	<ul style="list-style-type: none"> - Participation in special education for homeless students was higher than the overall citywide participation (14.02% vs. 11.92%). - Math: The average score of homeless students was 8.19 (<.001) compared to the citywide score. Homeless students with disabilities were 13.07 below than average (<.001). - Language arts: The average score of homeless students was 6.39 (<.001) compared to the citywide score. Homeless students with disabilities were 12.07 below than average (<.001).
Zima et al. (1994)	Quantitative, N*= 169	To estimate specific emotional, behavioral, and academic problems among sheltered homeless children and to identify their needs for special education services.	The results of standardized measures of depression, behavioral problems, receptive vocabulary, and reading, from 18 emergency family homeless shelters in Los Angeles County in 1991.	Linear and logistic regression	IV=Period of homelessness, sex, school enrollment, race/ethnicity, mental health and general healthcare history, DV=Perceptive vocabulary delay, reading delay, depression, behavioral problem.	<ul style="list-style-type: none"> - 47% scored at or below the 10% percentile in receptive vocabulary, 39% had a severe delay in reading. -37% met the cutoff point for depression and required a psychiatric evaluation. - 28% were at the borderline for a serious behavioral problem. - The amount of time homelessness or number of residences did not predict child depression or behavioral problems.
May et al. (1994)	Quantitative, N*=604	To examine special education teacher	Self-developed questionnaire, randomly	Descriptive	Coursework contents on teen sexuality/homelessness/d	<ul style="list-style-type: none"> - Less than 25% of the programs addressed all four areas (teen sexuality, homelessness, drug abuse, HIV/AIDS).

		<p>preparation programs related to students with special needs including homelessness, drug abuse, HIV/AIDS, teen sexuality.</p>	<p>selected 604 special education teacher programs in the U.S.</p>		<p>rug abuse/HIV/AIDS, course characteristics (required/elective), hours of class time covering the course, department offering the course.</p>	<p>- Only one-third of the special education teacher program covered homelessness topics in the coursework. - Homelessness was the least frequently covered in special education teacher preparation programs.</p>
<p>Cutuli et al. (2013)</p>	<p>Quantitative, N*=1,120 (Reading), 1,129 (Math)</p>	<p>To examine and compare academic achievement scores among homeless students, students receiving free or reduced meals, general students.</p>	<p>Standardized achievement reading and math test scores from 3rd to 8th grades, from 2005-2010, Minneapolis public school district.</p>	<p>Linear mixed modeling</p>	<p>IV: Homelessness CV: ELL status, sex, eligible for special education, race/ethnicity, free or reduced meals DV: Standardized math and reading achievement scores</p>	<p>- Overrepresentation of homeless students qualified for special education services (30%) compared to the overall population (11%). - Math: American Indian (t=-2.80), African American (t=-4.63), and Asian (t=-4.70) students had lower math achievement at intercept than White students. Students receiving special education had significantly lowest initial level of achievement (t= -12.48). - Reading: African American students (t=-2.88) and Asian students (t=-4.78) had lower reading achievement at intercept than White students. Students receiving special education had significantly lowest initial level of achievement (t= -18.17), and students with poorer attendance (t=2.62) had lower initial levels of reading achievement.</p>
<p>Chow et al. (2015)</p>	<p>Qualitative, N*=28</p>	<p>To examine elementary school teachers' experiences</p>	<p>Self-developed open-ended interview questions and</p>	<p>Phenomenological analysis, decentralized</p>	<p>Teachers' awareness and perceptions of students and families in homelessness, teachers'</p>	<p>-Teachers fostered peer relationships and developed supportive relationships with students.</p>

<p>Stone & Uretsky (2016)</p>	<p>Quantitative, N*= 2,618</p>	<p>working with homeless students with/without disabilities. To estimate the extent to which school factors contribute to students with/with disabilities' attendance, suspensions, behaviors, and academic outcomes.</p>	<p>the responses, public schools for family homeless shelters in southern California from 2011 to 2012. Standardized achievement reading and math test scores from K to 12th, from 2007-2011, a large urban district in California.</p>	<p>transcription method Multilevel models</p>	<p>instruction methods, challenges, professional development, or training experiences. - IV=Special education participation, English language learner, sex, race/ethnicity, grade, DV= Standardized test scores in Reading and Math, days absent, times suspended, missing test scores.</p>	<p>- There is little guidance about teachers' roles and responsibilities in the EHCY Program, limited training and professional development opportunities were given for teachers. - Homeless students with disabilities often move to other schools in the middle of the assessment and developing individual education plan process and result in repeating the same procedure at the next school. - Reading: The average score of students who participated in special education was 28.72 lower than students without disabilities and showed a 3.91 odd ratio for performing below basic. - Math: The average score of students who participated in special education was 29.19 lower than students without disabilities and showed a 3.10 odd ratio for performing below basic. - Students with disabilities were more likely to be absent and suspended at a significant level (<.001). -Absenteeism and the frequency of suspensions were associated with lower academic achievement outcomes.</p>
<p>Tobin (2016)</p>	<p>Quantitative, N*= N/A</p>	<p>To compare academic achievement between homeless students and house low-</p>	<p>Standardized achievement language arts and mathematics scores from 3rd to 5th grades,</p>	<p>Multiple regression</p>	<p>IV=Homeless, DV= Standardized test scores in language arts and mathematics. CV= Race/ethnicity, participation in the</p>	<p>- Participation in special education for homeless students was higher than the overall citywide participation (14.02% vs. 11.92%). - Math: The average score of homeless students was 8.19 (<.001) compared to the citywide score. Homeless students with disabilities were</p>

Cowen (2017)	Quantitative, N*=18,147	To provide systematic profile of homeless students in Michigan by examining achievement differences between homeless and non-homeless students	from 2007-2009, Education department of a large Northeastern city. Michigan educational assessment program test scores, from 3rd to 9th, 2010-2013, Michigan Department of Education administrative panel of data.	Hierarchical linear regression	federal free lunch program, special education participation. IV=Homelessness, race/ethnicity, sex, free or reduced lunch, limited English proficiency, special needs, urban/rural. DV= Standardized test scores in math and reading.	13.07 below than average (<.001). - Language arts: The average score of homeless students was 6.39 (<.001) compared to the citywide score. Homeless students with disabilities were 12.07 below than average (<.001). - Homeless students with disabilities were overrepresented than housed students with disabilities (16.31% vs. 10.47%), and students of color were overrepresented in the homeless group (African American: 24.31 vs. 17.78, Hispanic: 11.69 vs. 6.01). - Math: Regression-adjusted achievement differences were 0.068 (<.01) below for homeless status alone, but 0.173 (<.01) for special education needs, 0.163 (<.01) for African American, 0.126 (<.01) for free or reduced lunch. - Reading: Regression-adjusted achievement differences were 0.072 (<.01) below for homeless status alone, but 0.276 (<.01) for special education needs, 0.199 (<.01) for African American, 0.177 (<.01) for free or reduced lunch.
Sullivan-Walker (2017)	Qualitative, N*=6	To investigate existing school and district level supports for teachers of students with disabilities experiencing homelessness.	Self-developed open-ended interview questions and the results data from 6 participants (2 school counselor, 1 district homeless	Case study	Work history, prior position, professional background, responsibilities, self-esteem, familiarity with homeless education, experience serving students with disabilities in homelessness, relationship with	- Minimal collaboration among teachers and homeless education personnel, and other school professionals existed. - The vertical structure in school and teacher's deficit-based perspectives towards homeless students by focusing on the needs, not the strengths identified as challenges. - Teachers were not sure about the cause of

<p>Garcia et al. (2018)</p>	<p>Quantitative, N*=51,687</p>	<p>To investigate the associations between single- and multiple-system utilization and risk for dropping out of school among youth.</p>	<p>liaison, 1 principal, 1 EC teacher, 1 student support specialist)</p> <p>Student database from 4th to 9th, 2001-2006, Philadelphia school district level.</p>	<p>Logistic regression</p>	<p>collaborators (liaison, school staff), existing supports, opinion on the current supports.</p> <p>IV= Special education services, Department of Behavioral Health and Intellectual Disability Services (inpatient psychiatric hospital services, behavioral health rehabilitation services), Department of Human Services (Delinquency), OSH (Office of Supportive Housing) service participation.</p> <p>DV= At risk status for dropping out (absent for at least 20% of the school year), Near dropout status (absent for at least 50% of the school year).</p>	<p>students' academic difficulties without sufficient previous records (disability vs. homelessness).</p> <ul style="list-style-type: none"> - Most professional development opportunities were given to the homeless education personnel or homeless liaison personnel, and rarely shared with special educators. - At risk for dropping out: Sole special education system use was 26.7% with odd ratio 3.08, did not specify dual system involvement between special education system and OSH, but three or more systems involvement had 51.2% of risk for dropping out with odd ratio 7.5. - Near dropout status: Sole special education system use represents 30.4% of risk with 1.87 odd ratio, but involvement in three or more systems had 40% of risk with 7.13 odd ratio. - African American students had the highest risk of drop out (70%) and were more likely to be involved in any or multiple (2-3) systems compared to White students.
<p>Rubenstein (2022)</p>	<p>Quantitative, N*=962,297</p>	<p>To describe the relationship between homelessness and disability among school-aged students receiving public education</p>	<p>2018-2019 U.S. Department of Education Homeless student enrolled data and the Massachusetts Department of</p>	<p>Descriptive analysis</p>	<ul style="list-style-type: none"> - Calculated percentage of students with and without disabilities experiencing homelessness at the state, county, and district level. - Calculated risk of homelessness of students 	<ul style="list-style-type: none"> - 3.5% of students with disabilities experienced homelessness compared to 2.4% of students without disabilities (relative risk 1.50, 95% CI: 1.47, 1.53). - 223 of 407 districts (54.8%) had less than three students with disabilities in homelessness. - In all counties, students with disabilities had greater prevalence of experiencing homelessness

Bock et al. (2023)	Quantitative, N*=5,510,704	in Massachusetts. To quantify homeless students with disabilities in Connecticut, Washington, DC, Delaware, Massachusetts, Maine, New Jersey, New York, and Rhode Island.	Education school enrolment data. 2019-2020 U.S. Department of Education Homeless student enrolled data and the State Department of Education.	Descriptive analysis	with disabilities compared to students without disabilities. - Calculated percentage of students with and without disabilities experiencing homelessness at the state level. - Calculated risk of homelessness of students with disabilities compared to students without disabilities.	from 21.6% to 35.6% by county and 24.8% by Massachusetts. - On average across 7 states, 4.7% of students with disabilities experienced homelessness compared to 3.0% of students without disabilities (relative risk 1.58, 95% CI: 1.57, 1.59). - In the 2019 to 2020 school year, homelessness decreased for both students with and without disabilities, however, the risk ratio was greater with 16.7% relative increase compared to the 2018-2019 school year.
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**Note.* Sample *N* indicates the total number of homeless students with disabilities. In case homeless students with disabilities are one of subgroups in the study, only this group was calculated for the total number of samples in the table.