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Unpacking the Academic Interventions for Improving the Academic Skills of Black Girls with Disabilities: A Scoping Review

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Abstract

Most research on Black girls seem to have focused more on their behaviors (Morris, 2007), when compared to their White peers. It is even worse for Black Girls with Disabilities (BGDs) who have continued to be academically marginalized at the intersection of race, gender, and disability. Given the long history of special education research on improving the academic achievement of students with disabilities and the sustained representation of Black children receiving special education services across United States’ K-12 schools (Skiba et al., 2005), it becomes critical to systematically scope the academic interventions that have been used to improve the academic skills of BGDs. Using the Preferred Reporting Items for Systematic Reviews and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR) checklist (Tricco et al., 2018) and Askey and O’Malley’s (2005) framework, the authors found nine academic interventions that were used to improve the academic skills of BGDs across the 15 studies. Repeated reading interventions (RRIs) delivered through computer assisted instruction (CAI) were shown as an effective intervention at improving the academic skills of BGDs. With a narrative synthesis, themes on current gaps across the studies reviewed are discussed in addition to the systemic reasons why greater attention is needed on evidence-based practices that specifically address improving the academic skills of BGDs. Limitations and recommendations for future research are also discussed.

Keywords: academic skills, Black girls with disabilities, interventions, intersectionality, scoping review
Over the years, the usual normative view of females has mostly revolved around discrimination, and as a shadow of the male gender (McPherson, 2020). The normative idea of Black feminine gender has continued to receive less attention in research (Carter Andrews et al., 2019). Given the complexity that surrounds race-based construction, the narrative of Black girls has been muted and normalized along whiteness (Carter Andrews et al., 2019), where White femininity continues to be held as the standard for evaluating their academic skills and behaviors (Anamma et al., 2016). This situation then becomes more worrisome when the socially constructed issue of disability gets introduced into the loop (Artiles, 2013; Boskovich et al., 2019).

In educational spaces, Black girls with disabilities (BGDs) are an invisible population due to the marginalization of their intersecting identities (e.g., race, gender, disability). Even though current research on racial disparities stated that Black children with disabilities often receive dissimilar disciplinary measures and different attitudes from their educators when compared to their age level White peers in schools (Blanchett, 2006), the intersecting identities of BGDs can exacerbate the impact of disproportionality due to the overlapping oppression experienced through their marginalized identities (Whitney, 2019). This combined with the erasure experienced by Black girls in the larger society has caused young girls to either mask their needs in school or causes educators to not address their multiple intersectional identities through instruction and intervention.

National Assessment for Education Progress (NAEP) presented a disaggregated data (by race, gender, and disability) on the achievements of Black and White students in reading and math skills, indicating a great concern as Black girls perform consistently lower in academic skills compared to White girls or other girls of color (NAEP, 2018; Young, 2019). At fourth and eighth grades, Black students scored 25 and 32 points, 26 and 28 points lower than their White counterparts in math and reading assessments, respectively (NAEP, 2018). More specifically, NAEP (2018) reported that by eight-grade, only 16% of Black girls were proficient in math. Newman et al. (2011) also stated that Black students with disabilities perform at lower rates than their White peers with disabilities. Yet, the academic needs of
BGDs are understudied, with educators spending more time socially correcting their behaviors (Young et al., 2017).

Even though BGDs face unique challenges as learners in their educational pursuit because of their marginalized identities, yet educators and administrators alike almost focus exclusively on their behaviors and character building over their academic development (Morris, 2007). For these girls, the interplay of their identities has continuously led to them being held to lower expectations by their teachers when compared to their White counterparts (Morris & Perry, 2017). This interplay may lead to the omission of intersectional approach in implementing the needed interventions for improving the academic skills for BGDs.

**Intersectionality and Disability Critical Race Theory (DisCrit)**

This review rested on the shoulders of the tenets of DisCrit, a theory that was explored through the lens of intersectionality. Intersectionality considers people’s overlapping identities and experiences in order to understand the complexity of the prejudices they face (Boston, 2017; Crenshaw, 1989; 1991). Intersectionality emphasizes how distinct social identities such as race, disability status, and gender are interdependent of each other (Annamma et al., 2016). Historically, disability studies (DS) literature has not given much attention to the experiences of Black students. In response to this elusiveness in literature, Annamma et al. (2013) introduced DisCrit as a theoretical framework that combines both critical race theory (CRT) and DS with the aim of addressing the single-analytical view of students’ multiple identities.

DisCrit focusses on the interdependent and mutually intersecting multiple identities of Black students with disabilities (Annamma, 2019). DisCrit scholars succinctly explained the need to focus on all areas of students’ multiple identities in order to pull down the wall of educational inequities that may impact BGDs (Annamma et al., 2018). The perpetual negation of other identity markers of Black girls (e.g., disability) and their academic needs by researchers is worrisome and needs to be addressed. There is a need to explore the theoretical influences of intersectionality and DisCrit in understanding the needs, and the intersecting oppressions BGDs face.
Purpose

Given that previous research on the experiences of Black girls (Muhammad & Haddix, 2016; Neal-Jackson, 2018; Pinder & Blackwell, 2014) is gaining more visibility in literature, there is still a paucity of research around the learning experiences and the implementation of academic interventions with multiply marginalized girls (BGDs). With little attention given to a concerning issue as this, this may mislead researchers and educators to believing that BGDs are not struggling academically as much as their White peers. The implication of relying on this false assumption, is that educators and practitioners alike run the risk of inaccurate identification and placement of Black girls for special education. There are probabilities that the unique academic needs of BGDs will be met if comprehensive evidence based academic interventions are implemented hence, this study aimed at scoping the academic interventions that have be used to improve the academic skills of BGDs (see Table 1 for definition of terms used in this study).

Research Questions

In order to systematically scope the research that has focused on the academic skills of BGDs, this review asked these questions: (1) what are the academic interventions that have been used to improve the academic skills of BGDs within K-12 schools; and (2) what academic skills were targeted?

Method

Design

This study employed a scoping review to examine the academic interventions that have been used to improve the academic skills of BGDs. This review is a growing approach in the field of education (Walsh et al., 2019), designed to map issues, synthesize findings from a body of literature in order to identify gaps in research, and also answer broad research questions on emerging and complex topics in the literature prior to conducting a systematic review (Munn et al., 2018; Sucharew & Macaluso, 2019) hence, the reason authors selected a scoping review.

This study was guided by Arksey and O’Malley’s (2005) five stage (identifying the research question; identifying relevant studies; selecting studies; charting the data; and collating, summarizing and
reporting the results) framework for undertaking a scoping review, and the 20 important items from the PRISMA-ScR checklist (Tricco et al., 2018).

**Identifying Relevant Studies**

**Search Strategy**

To identify relevant studies, an electronic search of eight EBSCOHost databases (APA PsycARTICLES, APA PsycINFO, APA PsycTests, Academic Search Elite, CINAHL, Education Resources Information Centre (ERIC), Medline, and Teacher Reference Center) was conducted in August 2020. The search included the use of Boolean operators (i.e., AND, OR) and the truncated versions of major terms (i.e., academic skills, intervention, Black girls, and disability) formed the search stings that were plugged into Duquesne University Gumberg Library’s electronic database. Due to the dearth of research in this area of study, no specific publication date limit was specified for this search (see Table 2). Following the electronic search, the reference section of each included article was hand searched. Forward searches were conducted using the cited by function on Google Scholar. In addition, authors hand searched three practitioner journals (*Multiple Voices for Ethnically Diverse Exceptional Learners, Learning Disabilities: A Contemporary Journal, Learning Disabilities Quarterly*) for possible articles that met the inclusion criteria that may have been missed from the electronic search.

**Selecting Studies**

The search produced 198 without duplicates. A three-step process was used to screen articles. First stage was a title and abstract review, which produced 65 articles. After further method screening, 50 articles were excluded because they failed to meet all inclusionary criteria. Fifteen studies were screened for full text, eight studies met the eligibility criteria. Second stage was a backward and forward reference searching of the eight articles found from the initial screen, this produced four more articles. The final search process of three practitioner journals produced three more studies. In total, authors included 15 studies for content analysis (see Figure 1).

**Eligibility Criteria**
Articles that met the following criteria were included in the review: (1) published in a peer-reviewed journal and reported in English language; (2) included at least one participant that self-identified as a Black or African American girl with disabilities or at risk in U.S. K-12 schools; (3) adopted a design that separately report participants’ results; and (4) implemented an academic intervention that targeted at least one academic skill. Articles were excluded if they were literature reviews, dissertation, and if participants’ identities were not specified.

**Charting the Data**

Fifteen articles were coded on the following descriptors: (1) article characteristics (e.g., author, publication date, journal of publication); (2) participants demographics (e.g., gender, age, race, grade, disability or at risk, and school’s geographical setting); (3) methodological factors (e.g., study design, treatment fidelity, social validity, interobserver assessment, generalization); and (4) intervention details (e.g., type, targeted academic skills, setting, implementer, findings).

**Results**

**Collating, Summarizing, and Reporting Results**

A total of 15 articles met all inclusion criteria. Results were collated, summarized, and reported based on participants’ demographics, targeted academic skills, types of academic intervention, and the emerging themes across studies.

**Participants’ Demographics**

A total of 80 Black students were included across the 15 studies, out of which the results of 36 BGDs and those at risk were singled out and reported. This is in line with Graham’s et al. (2019) study who reviewed/reanalyzed the writing interventions implemented with African American boys by pulling out/reporting the results for boys only from five previous studies conducted on both African American boys and girls. All participants identified as Black or African American girls (33 African Americans and three Somali Americans) girls. All girls were within kindergarten and ninth grade, reading and/or writing at one or two levels below their grades.
Of the 36 Black girls in this study, six had been identified for either or both high- and low-incidence disabilities (e.g., orthopedic impairment speech language impairment, specific learning disorder, attention deficit hyperactivity disorder). The remaining 30 Black girls were identified to be at risk for academic (reading and/or writing) failure by either their educators or based on their low performances in district wide tests or benchmark assessments.

**Targeted Academic Skills**

All 15 studies targeted literacy skills and implemented interventions that focused on reading and writing skills. Specifically, three studies (FitPatrick & McKeown, 2020; Saddler, 2006; Saddler et al., 2004) targeted writing (informational citing text-based evidence, story planning and writing), one study (Morton & Araujo, 2014) targeted both reading and writing, while 11 studies targeted reading. Of these, seven studies (Barber et al., 2018; Bennett et al., 2017; Cartledge et al., 2015; Council et al., 2016; Gibson et al., 2011, 2014; Telesman et al., 2019) targeted oral reading fluency (ORF) and comprehension, four studies targeted early reading skills: phonemic awareness (Alber-Morgan et al., 2016), phonics (Noltemeyer et al., 2019), sight words recognition (Cullen et al., 2013), and narrative retelling (Brown et al., 2014).

**Intervention Types**

Across the 15 studies, nine interventions were implemented to improve the academic skills of BGDs and those at risk. They include narrative retelling (NR) and self-monitoring (SM), reading relevant and culturally engaging stories (RRACES), critical literacy approach (CLA), flashcard drill and practice, Kurzweil 3000, read naturally software edition (RNSE), self-regulated strategy development (SRSD), word box, and culturally and nonculturally relevant (CR/NCR) passages. Six of the nine interventions were delivered through computer assisted instruction (CAI), three were delivered through direct instruction, while some studies utilized both methods. These interventions are categorized and discussed below.

**Multicomponent Reading Intervention (MRI).** Afacan et al. (2018) described reading interventions as multicomponent if they taught instructions related to or targeted at least two of the five
(phonemic awareness, phonics, fluency, comprehension, and vocabulary) components of reading. Ten studies implemented interventions that were packaged to target at least two or more components of reading.

**Repeated Reading Interventions (RRIs).** Studies implemented reading-focused interventions (RRACES, RNSE, and CR materials). Six studies (Barber et al., 2018; Bennett et al., 2017; Council et al., 2016; Gibson et al., 2011, 2014; Telesman et al., 2019) utilized RRIs paired with culturally relevant passages to improve girls’ ORF and comprehension. Even though these studies employed multiple features in implementing RRI however, they were all consistent with setting reading goals and the use of CAI which incorporated human voice for modeling fluent readings.

**Writing-focused interventions.** Four studies implemented writing focused interventions (CLA, SRSD+TONES) interventions. The implementation of SRSD increased Black girls’ planning time and total words written. In addition to the self-regulation and goal setting skills SRSD teaches, positive self-talk statements were introduced to BGDs during intervention in FitPatrick and McKeown’s (2020) study. Morton and Araujo's (2014) study utilized CLA which improve her writing skills and also provided her the opportunity to engage in critical literacy conversations which allowed her to make appropriate personal connections between the texts and her cultural experiences.

**Early Reading Interventions (ERIs).** Four studies implemented early reading interventions as supplemental instruction, aimed at improving participants’ early literacy skills. They were either packaged interventions of NR+SM (Brown et al., 2014) or stand-alone interventions: word box (Alber-Morgan et al., 2016), Kurzweil 3000 (Cullen et al., 2013), flashcard drill and practice (Noltemeyer et al., 2019), which improved the word retelling and recognition skills of BGDs. Recorderpro app and Kurzweil 3000 software were used to teach sight words (Cullen et al., 2013) and narrative retelling (Brown et al., 2014) skills to BGDs which provided opportunity for continuous feedback and self-monitoring.

**Computer Assisted Instruction (CAI).** To provide errorless teaching, increase girls’ learning engagement and independence, six interventions utilized CAI as a vehicle for instructional delivery across
nine studies (Barber et al., 2018; Bennett et al., 2017; Brown et al., 2014; Cartledge et al., 2015; Council et al., 2016; Cullen et al., 2013; Gibson et al., 2011, 2014; Telesman et al., 2019).

**Discussion**

This scoping review highlights the academic interventions that have been used to improve the academic skills of BGDs within K-12 schools. From findings, critical gaps in literature in the areas of targeted academic skills, academic interventions, evidence of intersectional analysis, and scholarly neglect of BGDs in research are discussed below in line with the underpinning complex systemic issues across selected studies.

**Overlooked Identities and Academic Needs of BGDs**

Given the relatively few studies found, this scoping review confirmed the persistent neglect of the academic needs of BGDs in special education research. In addressing the academic needs of BGDs across the studies reviewed, only two interventions (CLA and RRACES) from two studies specifically targeted BGDs alone, while others only gave attention to BGDs’ academics when they aligned with Black boys. Considering that BGDs identify with three minority groups which may continually subject them to oppression (Annamma, 2014), ignoring or conflating their academic needs with others that share a common gender or racial identity further reduces their visible in academic spaces. The inherent disenabling forces within educational spaces continues this persistent marginalization of BGDs (Annamma et al., 2019). This was evident in the neglect of the academic needs of three Black girls (Grace, Hazel, and Skylar) in Council et al. (2016). Even though their academic records had revealed that they were falling behind and struggling with reading, their school neither provided them with any tier two or supplementary reading interventions, nor did they formally monitor their reading progress. This implies that even with empirical evidence and systems in place for remediation (e.g., response to intervention), BGDs may remain invisible in the very spaces where they should be receiving support.

The impact of invisibility can stretch beyond skill development. Many girls who identify as Shelby did in Morton and Araujo’s (2014) study mask their academic needs and challenges in school. However, creating the occasion for identity to be infused in academic content can serve as an evidence-
based practice that can reverse this phenomenon. When Shelby was able to experience critical literacy conversations into her reading and writing sessions, she could make personal connections to the texts and conversations that centered around race, injustices against African Americans, and poverty. This then increased her retention and confidence. Above all, her writing performance improved with better written vocabularies, sentence constructions and spacing. The point here is that, because the interventions implemented were not kept separate from Shelby’s multiple identities and experiences, her learning improved.

Lack of deeper analysis of BGDs.

Across studies reviewed, the design and implementation of academic interventions lacked deeper analysis into the role of race and gender in the academics of BGDs. Most of the interventions were implemented by researchers as discrete packages and in total neglect of the multiple identities of BGDs. Their focus was mostly on one of the girls’ identity (i.e., disabilities). Without proper analysis, educators and practitioners alike are left to assume how the multiple identities (race, gender, exceptionalities) of BGDs coalesce as a mediating variable in the implementation of academic intervention. More so, across most studies reviewed, BGDs were described from a deficit-based perspective, with the use of abled descriptive words such as “uncooperative”, “defiant”, “refusal to read”, and “easily distracted”. Above all, blaming the victim strategy (Gracia & Ortiz, 2013) can best be used to describe the representation of BGDs across some of the studies reviewed. This is an error DisCrit scholars warned researchers and educators against (Annamma & Morrison, 2018b; Annamma et al., 2019).

Understudied Academic Skills

Given that previous studies and national report cards emphasized that Black girls consistently perform below their White peers in reading, math, and science (NAEP, 2015), yet none of the 15 studies reviewed targeted math and/or science skills for BGDs. This may continue to amplify the inequities that surround the invisibility and underrepresentation of BGDs in key school programs such as science, technology, engineering, and mathematics (STEM) related fields. The question that comes to mind here are: does it mean that these Black girls do not need support in these academic skills, or could it be that
they are viewed as less important academic skills for BGDs? This is a gap researchers have advocated to be filled in our educational spaces (Collins et al., 2020; Joseph et al., 2017).

Writing is an important tool of liberation and expression of one’s interests, that may provide BGDs the opportunity to explore and articulate their experiences and identities (Wun, 2016). However, this review revealed that only three studies targeted the writing skills of BGDs. It is also important for researchers and practitioners alike to note that writing interventions that distances itself from the historical, sociocultural, and intersectional identities of BGDs may lose its relevance and generalizability effects (Whitney, 2019), thereby placing BGDs at a disadvantaged position where they lose their voices in the writings that may help them challenge the injustices and inequities around them.

**Re-examining Culturally Responsive Interventions and BGDs’ Experiences**

Repeated reading intervention (paired with CR passages) was found to be most prevalent at improving the literacy skills of BGDs. Even though, they were designed to be culturally sensitive and responsive to the unique needs of BGDs however, in some of the studies, BGDs had difficulties decoding names of characters (e.g., “LaKisha” and “Jamal”) in the CR passages because they were unfamiliar. This reflects a mismatch between the interventions and BGDs’ unique experiences. Thereby, not reflecting their interests and needs in the interventions that were designed to cater for them. This call to question if these interventions truly reflect the values, languages, and experiences, of BGDs, or more specifically what mattered to these multiply marginalized girls in our K-12 schools.

**Conclusion**

This scoping review revealed literacy as most targeted skills for BGDs and those at risk across K-8 grades. Repeated reading intervention (paired with CR passages) delivered through CAI was the most prevalent intervention implemented to improve the academic skills BGDs. However, this review further shows a scarcity of research on academic interventions implemented to improve the academic skills of BGDs. There also was a lack of deeper analysis into the social identities of BGDs and no evidence of intersectionality across included studies. It is important to note that without the implementation of culturally relevant evidence-based academic interventions targeted to improve the academic skills of
BGDs, these girls may lack the opportunity to engage in rigorous and transformative academic skills, which may potentially lock them out of higher education and great post school opportunities.

**Limitation**

Due to our eligibility criteria, grey literatures (e.g., book chapters, dissertations, conference proceedings) were excluded, which may have led to the omission of potentially relevant studies that target the academic skills of BGDs. Also, the methodological quality of the selected studies in this review was not assessed. Given the PRISMA-ScR checklist in completing a scoping review, a Mixed Methods Appraisal Tool (MMAT) designed for the appraisal stage in order to determine if the studies included followed proper methodological approach (Hong et al., 2018), would have been useful to critically appraise the methodological qualities of the studies included. Finally, the generalizability of the findings from the studies reviewed to broader population of other BGDs may be limited because the studies had small sample sizes.

**Recommendations**

This scoping review emphasizes the need for educators to provide early academic interventions to BGDs as a way to reduce the persistent problem of overrepresentation of Black students in special education. It is also pertinent that there are increased trainings for educators on cultural responsiveness. It is important that they prioritize cultural self-reflectiveness in their practice. As stated previously, there is a paucity of literature focusing on the academic skills and the intersectional identities of BGDs. Further research should prioritize the intersectional needs of BGDs while designing and implementing academic interventions in order to achieve positive outcomes.
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Articles included in review are marked with asterisks.


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