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Black immigrant women in the United States: Social determinants of health and data harmonization

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Abstract: The Black immigrant population in the U.S. has grown significantly, from 800,000 in 1980 to 4.6 million in 2019, now representing one in ten Black individuals. Despite this growth, Black immigrant women remain understudied, particularly regarding chronic conditions such as HIV/AIDS and cancer. This paper synthesizes research on the health experiences of Black immigrant women in the U.S. living with these conditions. A systematic search across five databases yielded 2,150 articles. However, inconsistencies in the conceptual and operational definitions of key variables—particularly race, ethnicity, gender, and duration of U.S. residency—prompted a revised focus on harmonization of these constructs. A second full-text review of articles resulted in 19 studies included for final analysis. Of these, 11 articles were qualitative, seven quantitative, and one used a mixed methods approach. Thirteen articles focused on HIV/AIDS, five on cancer, and one on general health. Race was often unexamined, conflated with ethnicity, or inferred through birthplace. This review underscores significant gaps in knowledge on Black immigrant women's health. Better conceptual clarity and focused research are essential to understanding how social determinants shape chronic disease outcomes in this growing population.

Keywords: Black Immigrant Women, Social Determinants of Health (SDOH), Data Harmonization, Conceptualization of race and ethnicity; Cancer; HIV/AIDS

The population of Black immigrants in the United States has grown significantly from 800,000 in 1980 to 4.6 million in 2019 (Tamir, 2022). One in ten Black people in the U.S. is an immigrant (Tamir & Anderson, 2022). These immigrants represent a racialized population in the United States, a nation with a history of racialized disparities in population health (Du Bois, 1899; Rogers et al., 2017; Singh & Jemal, 2017). Health research has shown that historically, African Americans are at high risk for chronic health conditions, including heart disease, stroke, cancer, and HIV/AIDS (Guha et al., 2021; Noonan et al., 2016; Office of Minority Health,

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2024). Several studies have indicated that Black immigrants have better health outcomes relative to their African American (native-born) counterparts and these differences tend to be larger compared to other groups of foreign and native-born populations in the U.S. (Hummer et al., 1999; Singh et al., 2013; Singh et al., 2018; Singh & Hiatt, 2006; Singh & Miller, 2004). Other studies have reported an "immigrant health paradox" whereby immigrants, despite their low socioeconomic status, tend to have better health than their native-born counterparts for some chronic health conditions (Hamilton et al., 2019; Markides & Coreil, 1986; Palarino, 2021; Read et al., 2005). It is important to note that the length of time or duration of residence in the United States is also an important predictor of health status (Commodore-Mensah et al., 2015; Goel et al., 2004; Juárez et al., 2022; Nkimbeng et al., 2022).

Despite the literature showing that immigrants generally have better health than their native-born counterparts, there is some consensus that immigrants with certain social characteristics, such as undocumented status and racialization, are more likely to have the worst health (Asad & Clair, 2018; Bacong & Menjivar, 2021; Novak et al., 2017). Additionally, Black immigrants, and women in particular, may be exposed to different determinants of health compared to their African American counterparts, requiring a more detailed investigation of the social determinants of health (SDOH) related to potential differences. These structural inequities have implications for how to understand service delivery in these communities.

Social Determinants of Health

SDOH represent the conditions in people's environments that affect their lives, from birth to death, in terms of how they live, learn, work, play, worship, and age (World Health Organization, 2021). SDOH can be separated into five domains: economic stability, social context and community, education access and quality, health care access and quality, and the built environment (Healthy People 2030, n.d.). Examples of SDOH include safe housing, experiences of discrimination, access to quality education and employment opportunities, food security, access to health care services, health behaviors, work conditions, income, the presence of environmental pollutants, and language and literacy skills (Healthy People 2030, n.d.; World Health Organization, 2024). SDOH have increasingly been identified as critical factors associated with chronic health conditions and drive the burden of these diseases, such as HIV (De Jesus & Williams, 2018; Menza et al., 2021; Sprague & Simon, 2014) and cancer (Kurani et al., 2020; Pinheiro et al., 2020).

Additionally, health-harming social conditions do not occur randomly but are related to historical inequalities connected to different groups' race and ethnicity (Goings et al., 2023; Laster Pirtle, 2020). While race is not a determinant of health, the racism and oppression associated with discrimination create micro, mezzo, and macro-level conditions that "assign human value, privileges, and opportunities based on race" (Ramsoondar et al., 2023, p. 594). Racism is experienced through interpersonal interactions with healthcare providers, which is further amplified systematically through policies and institutional practices that affect the quality and access to healthcare (Leyland et al., 2016; McKenzie, 2017). Therefore, race and ethnicity are important social status variables determining potential exposure to social determinants that elevate the risk for chronic health conditions (Marmot & Bell, 2012).

While there is extensive literature on the influence SDOH have on immigrant health, there is a lack of evidence on the role of SDOH among Black female immigrants with HIV or cancer. To synthesize the literature and address potential gaps, a scoping review was initiated to describe the state of the literature regarding these high-risk chronic health conditions among Black immigrant women in the United States. However, scoping review processes revealed a lack of common measures and inadequate disaggregation to evaluate literature findings, creating a shift in scoping review foci. Additionally, heart disease, one of the three chronic health conditions that was originally included in the study was dropped because none of the studies identified for review included cardiovascular disease among Black immigrant women. Hence, the researchers decided to instead examine the reporting procedures on social and demographic factors such as race and ethnicity in research articles examining Black immigrant women experiencing cancer and HIV that include potential social determinants of health. Understanding the way data is collected and the gaps in those collection research processes is vital to improving the health services available to this marginalized group of women.

Data Harmonization

Data harmonization involves "reconciling various types, levels, and sources of data in formats that are compatible and comparable, and thus useful for better decision-making" (Zeb et al., 2021, p. 360). Methodological and theoretical differences in research studies can drive how variables are conceptually and operationally defined, contributing to a lack of harmonization (Fortier et al., 2017). Harmonization can occur retrospectively or prospectively. Retrospective data harmonization involves examining past data collection efforts to identify common data elements, which often examine data syntax (e.g., the technical format of the data), structure (e.g., how data are presented), and semantics (e.g., the terminology used to describe a variable; Cheng et al., 2024). Demographics and variables of clinical focus require harmonization to more adequately compare findings within and between populations of interest to advance health research.

Race has been described as an indistinct construct that is not sufficiently standardized or accurately operationalized (Ioannidis et al., 2021). Despite being acknowledged as socially constructed, it has served as a necessary tool for understanding the health experiences of underserved populations (Bengoa et al., 2021). Therefore, the terminology and word choice associated with race and ethnicity are important. Race refers to the categorization of people based on shared physical traits common among people with shared ancestry, while ethnicity is defined as shared culture associated with similarities in language, food, values, beliefs, and identity (Huynh, 2025; American Psychological Association, 2024). Bengoa and colleagues (2021) observe that problems with harmonization occur with race when insufficient consideration is given to how race is incorporated into data collection (e.g., how subgroup information is organized). Moreover, they note that few studies report on the country of origin, which fails to acknowledge the importance of the intersection of immigration status. Technical advancements have increased the quantity and speed with which data is collected and reported, resulting in the unprecedented proliferation of available information (Demchenko et al., 2012; Ruggles, 2006). However, race and ethnicity have been operationalized in ways that obscure the understanding of the health needs of different racial and ethnic groups. Harmonizing data associated with race and ethnicity is necessary to disaggregate data and sufficiently identify specific groups' needs related to health and the social determinants to which they are exposed.

The lack of consistency in which researchers follow standardized approaches to collecting data has resulted in difficulties combining data across collection efforts or comparing findings across studies (Cheng et al., 2024). Data harmonization represents a concerted effort by health researchers and providers to use common data elements to measure and report health and health-related information (National Institute on Drug Abuse, 2024). While significant progress has been made toward employing common data elements, bodies of literature predating harmonization are still used to address the emerging needs of different populations.

Data collected from Black immigrants, particularly women, originate in diverse data collection efforts, ranging from small-scale studies conducted by individual researchers to large-scale nationally representative studies conducted by multiple governmental agencies. Race, ethnicity, and gender are socially constructed variables that play an important role in analyzing social determinants of health but vary in how they are collected (Bengoa et al., 2021).

These differences in reporting obscure the association between social determinants and chronic health conditions because findings cannot be adequately aggregated (e.g., in systematic and scoping reviews) to inform future research, policy, or practice. This variation in data collection and reporting also ignores the importance of intersection among different social identities, the ways in which different forms of inequality operate together and their impact on health outcomes.

Despite these reported differences, issues of data harmonization exist in the literature examining chronic conditions among Black immigrant women that impede researchers' ability to aggregate and interpret findings. For example, articles reporting race often collapse the category with ethnicity or nationality, distinguishing some participants of color based on race and others by ethnicity despite shared racial ancestry. To the researchers’ knowledge, no concerted efforts have been made to identify the various issues with operationalizing race in studies examining cancer and HIV among Black immigrant women. Standardized practices in harmonizing data collection associated with race across health studies allow for a clearer interpretation of study findings to the populations and subpopulations of interest.

HIV and Cancer among Black Immigrant Women

HIV and cancer are significant chronic health conditions that are responsible for substantial impairment and mortality in the U.S. (Becker et al., 2021). SDOH have increasingly been identified as critical factors associated with chronic health conditions, such as HIV acquisition and care (Boomer, 2024; Greenwood et al., 2021), and cancer outcomes and treatment (Tseng et al., 2022). Black immigrant women have been understudied, underrepresented, and underreported in health research (Commodore-Mensah et al., 2015), including studies that explore the influence of social determinants on their experiences with health and disease. While some information about Black immigrant women is available, a substantial portion of that data is gathered from existing registry data, where data is not directly gathered from patients. When data is not collected directly from members of the group under study, it is more likely to be incomplete or inaccurate, leading to potential gaps and biases in understanding their health outcomes (Boyd et al., 2023; Krumholz, 2009). This structural inequity has major implications for service delivery and the outcomes in women’s lives. Because Black immigrant women living with HIV/AIDS and cancer have multiple identities, including marginalized gender, race, ethnicity, language barriers, immigration status, and stigmatized disease, it is particularly important to have conceptual and operational harmonization to properly compare and summarize study results to make effective policy recommendations.

Immigrants in general, and Black female immigrants in particular, may not have access to screening and treatment because of their immigration status (Fang & Ragin, 2020; Tsui et al., 2007). HIV incidence among Black immigrants is high, but the exact number is unknown because of the lack of disaggregated HIV data by race and place of birth (Ojikutu et al., 2018). Using Centers for Disease Control data, Johnson and colleagues (2010) observed differences in the transmission of HIV between U.S.-born and foreign-born Black men and women. Similarities have been observed among some types of cancer. For example, using vital statistics from California, Florida, Minnesota, and New York, Pinheiro and colleagues (2020) found that African immigrants differed from U.S.-born African Americans in cancer mortality rates. Moreover, the authors noted that distinctions were observed between African immigrant groups, with Afro-Caribbean groups experiencing higher cancer mortality compared to those of African nativity. Additionally, they found that Black immigrant women had lower cancer mortality than native-born Americans for environmental-driven cancers such as lung, colorectal, and breast cancers. Lastly, they reported lower rates of cervical cancer, a disease with high prevalence among women in Africa, compared to U.S.-born Black women.

Collectively, the risks and prevalence of chronic health conditions among Black immigrants, and women in particular, vary considerably and require a more detailed investigation. However, a lack of proper operationalization of important variables such as race, gender, and immigration status hinders adequate analysis of the ways that the different factors intersect to shape opportunities or lack of for these people and their quality of life. As reported by Hankivsky & Christoffersen (2008), it is important to gain inclusive knowledge of systemic factors that impact the lives of underserved groups and consequently the health of different population groups at various social locations.

Immigration Status

Immigration itself is a powerful social determinant of health because structural, political, and economic factors create social inequalities that become push factors in one's decision to migrate (Castañeda et al., 2015). Once migrated to the U.S., immigrants are less likely to have health insurance coverage (Alarcon, 2022) and lack access to healthcare. Hamilton and Hagos (2020) reported that the duration of stay has significant adverse effects on Black and Hispanic immigrants relative to their Asian and White counterparts. Researchers surmise that immigrants often bring cultural values and behaviors that promote health (e.g., no smoking and healthier diets), which begin to attenuate with acculturation (Abraído-Lanza et al., 2005; Brown et al., 2018; Castañeda et al., 2015), increasing the risk for chronic illness and poorer health. It is important to note that the length of stay or duration of residence in the U.S. is also an important predictor of health status (Commodore-Mensah et al., 2015; Goel et al., 2004; Juárez et al., 2022; Nkimbeng et al., 2022). Also, immigrants generally experience interacting institutional conditions and practices in transit and in host countries, which create stressors that negatively affect their health (Chen et al., 2022). Historically, racism has interacted with factors such as nationality, migrant status, and gender among racialized immigrant populations leading to physical and mental health challenges (Adewoye et al., 2025; Bacong & Menjivar, 2021; Rocha-Jimenez et al., 2025).

This study was guided by the research question: How are race, ethnicity, gender, and length of stay conceptualized and operationalized in research articles examining Black immigrant women experiencing cancer and HIV that include potential social determinants of health? The findings describe key intersecting factors on health such as race and ethnicity, gender, and length of time in the United States in research articles examining Black immigrant women experiencing cancer and HIV that include potential social determinants of health. Identifying limitations in reporting these factors and recommendations for harmonization can help in identifying the pathways between social determinants of health and cancer and HIV among Black immigrant women. A better understanding of these pathways will lead to more comprehensive research that can inform more equitable and culturally appropriate treatments for Black immigrant women.

Methods

Search Strategy

A university librarian designed and conducted the literature search according to established best practices (Kugley et al., 2017). Five bibliographic databases were searched to identify published studies related to the social determinants of health of Black immigrant women with cancer and HIV. The search strategy was first designed in Medline and then translated to other databases, including Web of Science, SocINDEX, Social Science Premium databases via Proquest, Ageline, and PubMed. See Appendix 1 for the Medline Keyword search terms.

Two steps were used. First, a scoping review was conducted following the JBI framework (Peters et al., 2020) and the PRISMA-ScR guidelines (Page et al., 2021). Two reviewers independently screened the articles, and conflicts were resolved through a discussion of the research team at each step of the selection process. The database searches were conducted on October 9, 2023, and then re-run on March 1, 2024. All records were exported as RIS files and uploaded into Covidence, where all article deduplicating, title and abstract, and full-text screening occurred. Second, the team went back and added in articles that had been excluded because these article's variables had not clearly separated a) Black women and men, and b) foreign-born vs American-born. This modification addressed the data harmonization of race and ethnicity in the sample population. The pivot was to explore how race, ethnicity, gender, and duration of time in the United States were defined. The new search results were added to Covidence and deduplicated against the original results, screened, and extracted with the rest of the screened articles.

Selection of Studies

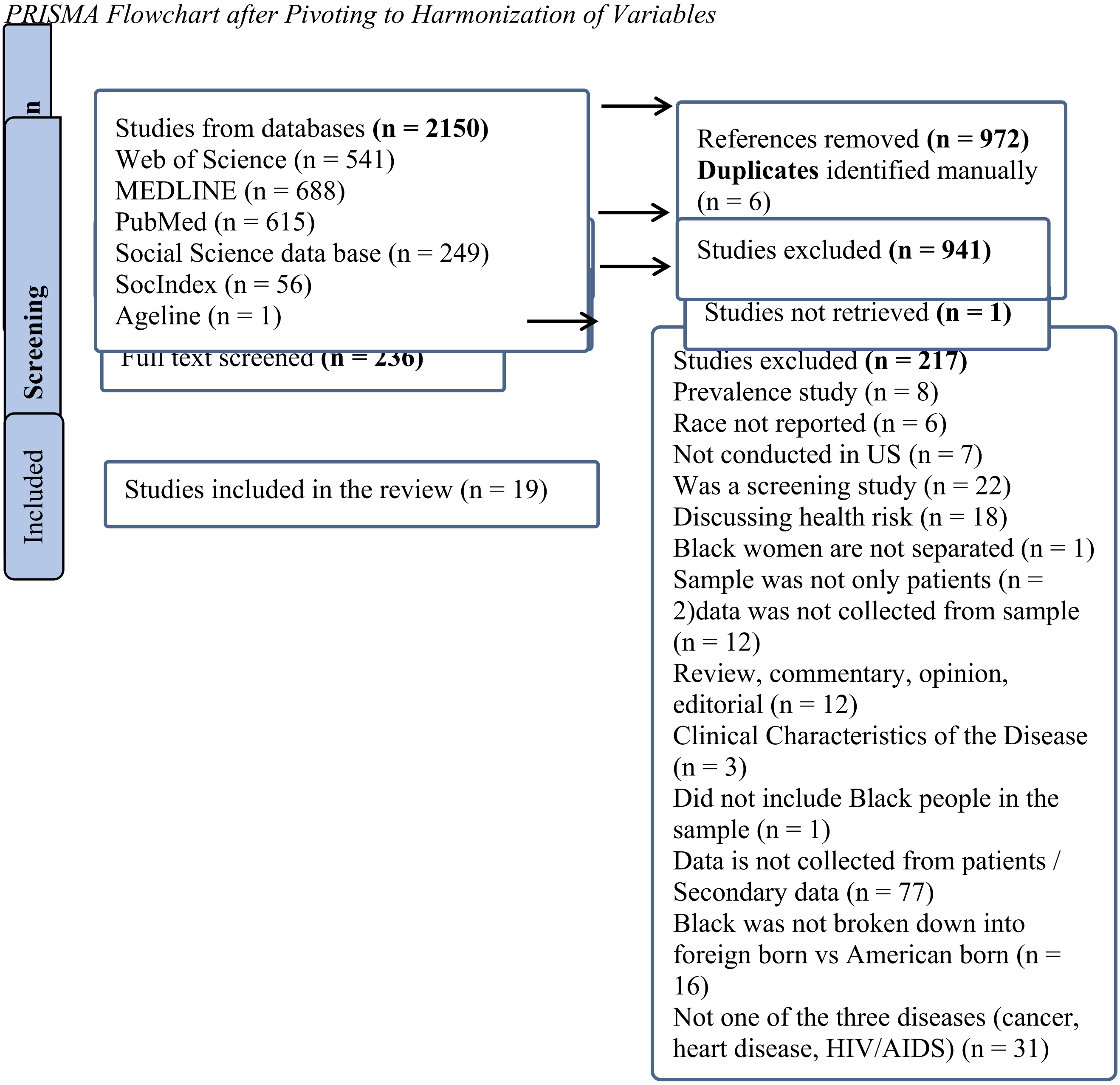
The inclusion criteria were that articles had to be published in English in peer-reviewed journals, the data included Black women and differentiated Black women from non-Black women who were immigrants to the United States, and who experienced one of the health conditions of interest (cancer or HIV). For the full-text review, consideration of one or more social determinants of health, as defined by the US Department of Health and Human Services' Office of Disease Prevention and Health Promotion and the Healthy People 2030 initiative (n.d.), was added as an inclusion criterion. No publication date limiter was applied.

The searches of the databases produced 2,150 records, and after duplicates were removed, there were 1,178 articles. In the title and abstract screening, 941 were excluded. Of the 237 remaining articles, one could not be retrieved, and 220 articles were excluded during the full-text screening, leaving 17 for extraction.

The team reviewed the data extracted from these 17 articles and determined that very few could answer the research question. Given the concerns about how key variables were conceptualized and operationalized differently across the articles, the authors, in keeping with the iterative process of a scoping review, decided to modify the scoping review. They went back and added in articles that had been excluded because the variables in these articles did not clearly separate a) Black women and men, and b) foreign-born vs American-born to address data harmonization of race, ethnicity, and place of birth in the sample population. The pivot was to explore how race, ethnicity, gender, and duration of time in the United States were defined. This yielded a total of 39 articles for a full-text review. The full-text review resulted in a total of 19 articles (See Figure 1). The data extracted from these 19 articles included the sample size, the percentage of foreign-born, the percentage of Black foreign-born, and the percentage of foreign-born Black women. Also extracted were both the conceptualization and operationalization of race, ethnicity, gender and length of time in the U.S. among study participants.

Figure 1

PRISMA Flowchart after Pivoting to Harmonization of Variables



Positionality

The research team included a Black, African-born cisgender woman; an Iranian-born, cisgender woman; an Indian-born Malayali man; a third generation US-born Latinx cisgender man; and three white US-born cisgender women. The intersectionality of identities and diversity of experiences of the research team provided a range of perspectives and valuable nuance in the search criteria selection, data extraction, and analysis of this study.

Results

Table 1 presents the study design, and information about the sample, including sample size, gender, proportion foreign born and Black foreign born from studies examining HIV and cancer among Black immigrant women. To better understand the factors related to researchers' conceptualization and operationalizations in these areas, it was essential to review the basic characteristics of each study, including its focus, methodology, and populations of interest. The majority of studies exploring, or inclusive of, Black immigrant women's experiences with HIV and cancer were qualitative (n = 11) (Blinder et al., 2012; Cernasev et al., 2020; Fabt et al., 2024; Foley, 2005; Kenya et al., 2015; Kerani et al., 2022; Koku et al., 2010; Nevin et al., 2018; Ojikutu et al., 2018; Quach et al., 2012; Remien et al., 2015; Ross et al., 2019), followed by quantitative studies (n = 7) (Adedimeji et al., 2020; Carlisle, 2012; Costas-Muniz et al., 2016; Garland et al., 2007; McRoy et al., 2022; Shariff-Marco et al., 2023; Sorvillo et al., 1999) and a single mixed method study (Pivnick et al., 2010).

Sample sizes ranged from 3 to 22,554, with smaller sample sizes associated with qualitatively focused studies. The sample sizes of qualitative studies ranged from 3 to 179 (Blinder et al., 2012 ; Cernasev et al., 2020 ; Foley, 2005 ; Kenya et al., 2015 ; Kerani et al., 2022; Koku et al.,2010 ;; Nevin et al., 2018; Ojikutu et al.2018 ;8; Quach et al., 2012; Remien et al2015 ;15; Ross et al., 2019). The sample sizes of quantitative studies ranged from 82 to 22,554 (Adedimeji et al., 2020 ; Carlisle, 2012 ; Costas-Muniz et al., 2016 ; Garland et al., 2007; McRoy et al., 2022 ; Shariff-Marco et al., 2023 ; Sorvillo et al., 1999). The single mixed-method study had 55 participants (Pivnick et al., 2010). As might be expected, the samples gathered for qualitative research were more specific, focusing on women reporting nativity in Africa or the Caribbean Islands who were diagnosed with a specific chronic health condition (e.g., HIV) (Cernasev et al., 2020). Conversely, quantitative studies including Black immigrant women often included other populations (e.g., African Americans, Asian immigrants, and Latinos) to address broader population trends (Blinder et al., 2012; Cernasev et al., 2020; Quach et al., 2012).

None of the studies identified for review specifically examined cardiovascular disease among Black immigrant women. Hence, cardiovascular disease was dropped out of the study. Of the qualitative studies, nine, along with the mixed method study (Pivnick et al., 2010), focused on HIV (Cernasev et al., 2020; Foley, 2005; Kenya et al., 2015; Kerani et al., 2022; Koku et al., 2010; Nevin et al., 2018; Ojikutu et al., 2018; Remien et al., 2015; Ross et al., 2019), two focused on cancer (Blinder et al., 2012; Quach et al., 2012). Of the quantitative studies, three examined HIV/AIDS (Adedimeji et al., 2020; Garland et al., 2007; Sorvillo et al., 1999), three examined cancer (Costas-Muniz et al., 2016; McRoy et al, 2022; Shariff-Marco et al., 2023) and one focused broadly on chronic health conditions (Carlisle, 2012). The quantitative studies were mostly cross-sectional (n = 4) (Carlisle, 2012; Costas-Muniz et al., 2016; Garland et al., 2007; McRoy et al., 2022), followed by prospective cohort studies (n = 2) (Adedimeji et al., 2020; Shariff-Marco et al., 2023), and a single longitudinal study (Sorvillo et al., 1999). Additionally, three studies did not clearly specify the gender of participants (Cernasev et al., 2020; Nevin et al., 2018; Remien et al., 2015) and three studies used Black foreign-born participants for their studies (Koku et al., 2010; McRoy et al., 2022; Quach et al., 2012).

Table 1
Summary of methodological details of the studies

	Disease Studied	Sample Size	Sample Information		
Qualitative Study			Gender	Foreign Born	Black Foreign Born
Blinder et al. (2012)	Cancer	23	Female=100%	60.8%	Not reported
Cernasev et al. (2020)	HIV	14	Not reported	100%	Not reported
Foley. (2005)	HIV/AIDS	3	Female=100%	100%	Not reported
Kenya et al. (2015)	HIV	21	Female=100%	100%	Not reported
Kerani et al. (2022)	HIV	179	Female=63%	100%	Not reported
Koku et al. (2009)	HIV/AIDS	17	Female= 65% Male=35%	100%	100%
Ojikutu et al. (2018)	HIV	45	Female=100%	100%	Not reported
Quach et al. (2012)	Cancer	60	Female=100%	51.7%	100%
Remien et al. (2015)	HIV	80	Not reported	Not reported	Not reported
Ross et al. (2019)	HIV	14	Female=100%	100%	Not reported
Quantitative Study					
Adedimeji et al. (2020)	HIV	3626	Female=100%	17.3%;	Not reported
Carlisle, (2012)	Chronic Health conditions	4988	Female=100%	71.8%	Not reported
Costas-Muniz et al. (2016)	Cancer	1098	Female=61.7%, Men=38.3%	75.6%	Not reported
Garland et al. (2007)	HIV	82	Female=27% Male=72% Transgender = 1%	69%	Not reported
McRoy et al. (2022)	Cancer	22,554	Female =51.6%	31.13%	8.1%
Nevin et al. (2018)	HIV	20	Female: 65% Male: 35%	100%	Not reported
Shariff-Marco et al. (2023)	Cancer	3991	Female: 100%	14.3%	Not reported
Sorvillo et al. (1999)	AIDS	339	Not reported	41%	Not reported
Mixed Method Study					
Pivnick et al. (2010)	HIV	55	Female=100%	100%	Not reported

How studies define and operationalize race, gender, etc. was a barrier to data harmonization. Conceptual and operational definitions of race, ethnicity, gender, and length of time in the U.S. were examined across all studies. Table 2 provides the conceptual and operational definitions (if specified) of these variables in the articles that were analyzed. Broadly, race was not explicitly conceptualized, despite often being incorporated in the inclusion criteria and using literature referencing racial disparities between Black immigrant women and other groups in the articles. Race was only specifically conceptualized in two articles (Blinder et al., 2012; Carlisle, 2012).

Table 2
Conceptual and Operational Definitions of Variables

Authors	Conceptualization of			Operationalization of				Results of
	Race	Ethnicity	Gender	Race	Ethnicity	Gender	Length of stay in US	Length of stay
Adedimeji et al. (2020)	Not included	Self-reported country of birth	All women	White (Hispanic and non-Hispanic together), Black (Hispanic and non-Hispanic together), or other (who mostly self-identified as Hispanic but not white or black)	Africa, Caribbean, Latin America, USA, USA Territory, or other	All women	Not included	Not included
Blinder et al. (2012)	Self-identify as African American, African-Caribbean, Chinese, Filipina, Latina, or non-Latina White	Collapsed with race	All women	African American, African-Caribbean, Chinese, Filipina, Latina, or non-Latina White	Collapsed with race	All women	Not included	Not included
Carlisle, (2012)	Region of birth	Not included	Male and Female	Asian American, Latino American, and Afro-Caribbean American.	Not included	Male and Female	Years in the US	Not included

Table 2
Continued

Cernasev et al. (2020)	Not included	Not included	Not included	Not included	Not included	Not included	Not included	Not included
Costas-Muniz et al. (2016)	Not included	African American born in USA, Afro-Caribbean immigrant, African immigrant, Black Latino immigrant	Not included	Self-reported as Black or Latino	Place of birth	Male and Female	Years in mainland < 5 years 6-20 years >20 years	< 5 years Latinos: 98 Blacks: 102 6–20 years Latinos=163 Blacks=91 > 20 years: Latinos: 59 Blacks: 98
Foley, (2005)	Not included	Not included	Not included	Not included	Not included	Not included	Not included	Not included
Garland et al. (2007)	Not included	Not included	Not included	African American, Latino, White, and Other	Country of birth	Male Female Transgender Male and Female	Not included	Not included
Kenya et al. (2015)	Not included	Not included	Not included	Not included	Self-reported as Haitian	Self-reported female	Not included	(90%) Living in US for more than 5 years
Kerani et al. (2022)	Not included	Not included	Not included	Not included	Not included	Men and Women	Year of immigration to U.S. 1980–1989; 1990–1999; 2000–2009; 2010–2016	The median number of years in the US was 8 years (range: 2 months-33 years)
Koku et al. (2009)	Not included	Not included	Not included	Not included	Not included	Male and female	Not included	"Most of the study participants stated they have been in the US for about ten years
McRoy et al. (2022)	Not included	Not included	Not included	Non-Hispanic White; non-Hispanic Black; Mexican American, other Hispanic; Asian; another race/ethnicity group	Collapsed with race	Male and female	Not included	Not included

Table 2
Continued

Nevin et al. (2018)	Not included	Not included	Not included	Not included	Not included	Male and Female	Number of years in the US	Median (Range): 11.9 (0.08-27.61) years
Ojikutu et al. (2018)	Not included	Not included	Not included	Not included	Not included	All female	Not included	Mean duration in the US: 10 years
Pivnick et al. (2010)	Not included	Country of origin	Not included	Not included	Jamaican, Trinidad and Tobago, Guyanese, US Virgin Islander, Other	Male and Female	Years in US	Mean years: 17.5 (12.1) 19.4 (12.5) 18.7 (12.3)
Quash et al., (2012)	Not included	Not included	Not included	Collapsed with ethnicity	Chinese - Cantonese Speaking, Chinese-Mandarin Speaking, Japanese, Asian-Filipina, Asian Indian, Vietnamese, African American, Non-Hispanic White, Latina	All Female	Not included	Not included
Remien et al. (2015)	Not included	African immigrant	Not included	Not included	Not included	Not included	Not included	Not included
Ross et al. (2019)	Not included	Not included	Not included	Not included	Born in West, East, or Central Africa	Male and Female	Not included	Median years since immigration: IQR 14 (1–20); Range 1 month to 20 years
Shariff-Marco et al. (2023)	Not included	Not included	Not included	Collapsed with Ethnicity	Non-Hispanic Black, non-Hispanic White, Asian American/Pacific Islander (AAPI), American Indian/Alaska Native	All women	Not Included	Not included

Table 2
Continued

Sorvillo et al. (1999)	Not included	Not included	Not included	White, Black, US-born Latinos, Foreign-born Latinos, Asian/other	Collapsed with race	Male and Female	Not included	Not included

This lack of conceptual undergirding created operational variation. For example, in some cases, race and ethnicity were often consolidated into a single category (i.e., race/ethnicity) to conduct analyses (e.g., compare groups) or report information. Conversely, nativity (e.g., born in Africa) or continent/region (e.g., West Africa) rather than race, were used as proxies for race and ethnicity in two studies (Garland et al., 2007; Ross et al., 2019). Lastly, the methods of collecting the information were often unclear. Four studies relied on self-report (Adedimeji et al., 2020; Blinder et al., 2012; Costas-Muniz et al., 2016; Kenya et al., 2015); others used available administrative data to identify participants' eligibility to be recruited, while others lacked information on how demographic variables were collected.

Not having a uniform operationalized definition or conceptualization of these factors is detrimental to the original purpose of this paper because race and ethnicity are not the same concepts and should not be used interchangeably; ethnic groups may have people of different racial categories. Ethnicity refers to shared culture associated with similarities in language, food, values, beliefs, and identity (American Psychological Association, 2024) and in the case of Hispanic or Latino, Latina or Latinx people in the U.S., there are many people among this group who are considered non-White. Further, the social construction of race and ethnicity has led to differential treatments creating health disparities and difficult social and economic mobility among some non-White Americans (Bailey et al., 2021). Additionally, race has been a powerful social construct that has negatively affected the lived experiences of many non-white population groups, intersecting with other social characteristics such as migration status, to impact health (Adewoye et al., 2025; Bacong & Menjivar, 2021; Rocha-Jimenez et al, 2025). Furthermore, using place of birth for race or ethnicity is also problematic since people born in the same place may come from different racial and ethnic groups. This is especially true for people who migrated from Africa. Africa has over 50 countries and people originating from the same country tend to belong to different ethnic groups with specific culture and language. The lack of harmonized operationalized definitions or conceptualization in these studies limited the researchers' ability to make meaning of the studies' results more broadly.

Similarly, gender and length of time in the U.S. were also not conceptualized in useful ways in the studies reviewed. Some studies used the terms men and women (n=4); others used male and female (n=11); one included male, female, and transgendered male or female; and three did not report gender at all. However, the tendency to dichotomize gender resulted in more uniform categories (i.e., male or female) compared to race and ethnicity. The methods for gathering information about gender varied, with some collecting information through self-report and others using researchers' observations (e.g., approached participants), or existing administrative data. If length of time in the U.S. was measured (n = 8) (Costas-Muniz et al., 2016; Kenya et al., 2015; Kerani et al., 2022; Koku et al., 2010; Nevin et al., 2018; Ojikutu et al., 2018; Pivnick et al., 2010; Ross et al., 2019), it was usually reported as the number of years residing in the United States. Most of the studies collecting these data were qualitative or mixed methods (n = 7) (Kenya et al., 2015; Kerani et al., 2022; Koku et al., 2010; Nevin et al., 2018; Ojikutu et al., 2018; Pivnick et al., 2010; Ross et al., 2019). The two quantitative studies with length of time were very specific to the study's purpose (e.g., dichotomous length of time in a particular county) and did not align with typical length of time measures (Carlisle, 2012; Costas-Muniz et al., 2016). Length of time in the United States has been reported to impact health conditions in different ways (Alcántara et al., 2017). For instance, Gonzalez-Guarda and others (2021), reported a negative relationship between length of time and health status for Latino immigrants. Palarino (2021) found that Black immigrants' health did not deteriorate any differently than their non-Black counterparts. Hence, to gain a better understanding of how length of time affects health, studies should clearly and consistently define length of time in meaningful ways.

Overall, variables used to identify studies describing the HIV and cancer experiences of Black immigrant women lacked the needed conceptual and operational harmonization to compare and summarize study findings. They neglect the complex intersection among these variables and their impacts on health and lived experiences of Black immigrant women. Research has historically neglected marginalized identities leading to gaps in the knowledge base for many communities. This is exacerbated when an individual or community shares multiple stigmatized identities. Crenshaw (1989) coined the term intersectionality to describe the co-existence of multiple identities that have been marginalized or stigmatized. This concept has fundamentally changed the ways many researchers examine identity. "Intersectionality is not simply about multiple identities; it is a critical paradigm that resists oppressive norms by shedding light on the who, what, and how of our science – who is included, what is studied, and how research is conducted" (Moffitt et al., 2023, p. 289).

In fact, the ambiguity in the operationalization of the different variables is a detriment to the understanding of ways that these identities intersect with health conditions such as cancer and HIV, as well as the understanding of the complexity of social locations and their impacts on health outcomes (Young, 2020).

Discussion

Findings from this review demonstrate the need for harmonization of data to understand chronic health conditions among Black immigrant women. Given the historical lack of inclusion of Black immigrant women in health research (Commodore-Mensah et al., 2015), it is particularly important to note that this review showed that race was often not conceptualized at all, was combined with ethnicity, or assumed place of birth (Africa or Caribbean) to indicate race proxy. This is not a new practice; in fact, historically, this has been the case with individuals of Hispanic ethnicity. For example, one study used surnames to identify whether participants were Hispanic or not (Lee et al., 1976). However, research can be strengthened if scholars begin to clearly define and separate ethnicity from race since these are two different concepts with different live experiences for racialized population groups such as foreign-born Black women. Also, other identities such as gender and place of birth cannot be overlooked in health research since these factors do intersect with health (Bacong & Menjivar, 2021; Awoniyi & Jokotagba, 2025).

What started as a scoping review turned into a harmonization study due to the lack of clear and scientifically sound conceptualization with regard to race. Groups including African American, Black, African-born, and Caribbean-born have been lumped into one category (Omoniyi, 2025). This makes assumptions that all African-born and Caribbean-born individuals are Black. This also does not allow for operationalizing race in meaningful ways to study differences in these distinct populations when examining cancer and HIV among immigrant women. Additionally, we were not able to discern if Black immigrant women with cancer or HIV experience the immigrant health paradox (Hamilton, et al., 2019; Markides & Coreil, 1986; Palarino, 2021; Read et al., 2005; Greig, 2024). Without data that has been operationalized in a meaningful way, structural inequalities cannot be accurately assessed regarding Black immigrant women's healthcare.

Further, gender was not conceptualized in a way that allowed for an analysis of the spectrum of possibilities. The advances in understanding of gender identity requires that both gender identity and sex at birth data be collected, carefully separated, and not collapsed into one category. Finally, length of time in the U.S. was not conceptualized in a way that allowed for harmonization of data. Without a way to compare the data, the length of time in the US variable becomes meaningless, for example trying to compare years in country vs. weeks in a specific county. Rigorous data harmonization is a methodological tool that can offer valuable changes to the understanding of Black immigrant women's health, and in turn the services they are provided. As health researchers and policymakers continue to examine the intersection of migration on health, strategic efforts should be made to unambiguously define and operationalize important concepts of race, ethnicity, gender, years of migration. place of birth, etc. All these factors have historical and structural implications on health.

Limitations and Conclusions

A major limitation is that the results from this study are not generalizable. However, what this review does provide is a view into what is missing in the research, and how the methodological choices of researchers are limiting the data necessary to serve marginalized communities including Black immigrant women.

There is a real need for research to address the gaps in the knowledge base regarding high-risk chronic health conditions including cancer and HIV among Black immigrant women. This review clarified the lack of common measures and inadequate disaggregation necessary to organize the understanding of the state of the literature. In fact, this review could not fulfill its original research intent as a scoping review because of the lack of harmonized data. The research question shifted, and instead the researchers highlighted the various ways that these variables are conceptualized and operationalized, lending further support to the call for data harmonization for race, gender, and length of time in the United States.

Another limitation is that this review yielded only 19 articles, and most of them were HIV-focused. Given this limited number, it is difficult to conclude that this is an absolute field-wide issue. However, it does indicate that there are limits to what is known in the literature for this population.

Future research is needed to fill in the gaps of knowledge surrounding at-risk populations for chronic diseases including African Americans, potential keys to success in preventing chronic diseases from immigrant populations, and important nuances for quality-of-life studies including SDOH. However, these important data cannot be captured until changes are made in the conceptualization of race, gender, and length of stay. The recommendations of this review are that harmonization of data can help in identifying the pathways between SDOH and cancer, and HIV among Black immigrant women.

Specifically, race should be clearly operationalized separate from ethnicity, and place of birth should not be used as a proxy for race. Race should be self-reported, not observed or assumed by the researcher or anyone else. Further, gender should be self-reported and not collected in a binary category. The variable for length of time immigrants has been in the U.S. should be clearly operationalized to include country length of stay. Researchers might also consider including time of leaving country of origin; often immigrants spend time in another country before arriving in their destination. This time in transit should be considered especially when examining chronic disease and SDOH.

In sum, these recommended standardized practices to harmonize data collection associated with race, gender, and length of stay across health studies will allow for a clearer interpretation of study findings to the populations and subpopulations of interest, which will help in identifying the pathways between social determinants of health and cancer and HIV among Black immigrant women that are clearly needed in the health knowledge base. Using a framework of intersectionality to make methodological changes in the way data is collected will produce clearer research that can parse out the changes need to address long standing structural inequities and contribute to a better understanding of how to improve service delivery in these communities.

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Karlynn BrintzenhofeSzoc and Sarah Moore contributed to the conceptualization, methodology, formal analysis, investigation, and writing of the manuscript. Adrian Archuleta, Ami Moore, Sadaf Sedaghatshoar, and Shameem Varikkodan contributed to the formal analysis, investigation, and writing of the manuscript. Jennifer Rowe conducted the data curation and contributed to the writing of the manuscript.

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Notes on Contributors

Dr. BrintzenhofeSzoc's research centers on the experiences of individuals and families affected by cancer and chronic, life-limiting illnesses. She applies the Bio Psycho Social Spiritual Sexual Cultural (BPSSSC) framework to examine how social, cultural, and structural factors shape health outcomes and quality of life. Her scholarship includes work on oncology social work practice, financial toxicity among older adults with cancer, and an evidence-based intervention with Black female cancer survivors. She collaborates with social work students on scoping reviews addressing sexual health, fertility, and myths and misconceptions about cancer among diverse populations.

Dr. Sarah Moore is an Associate Professor of Social Work whose research focuses on global social work practice and education. Her research encompasses refugee and immigrant populations, survivors of torture, the Ethiopian immigrant community and HIV/AIDS, as well as global social work providers and educators. She uses qualitative methodologies, with a particular interest in Community-Based Participatory Action Research (CBPR). Dr. Moore was a Fulbright-Hays Seminar Abroad award recipient in 2022 to Norway and in 2024 to Colombia.

Dr. Archuleta's research focuses on the social and psychological determinants of acculturation and acculturative stress, and how these factors relate to well-being among immigrants, refugees, and later-generation ethnocultural groups. More specifically, Dr. Archuleta's work explores how cultural change and social and psychological well-being (e.g., social connectedness and social capital) contribute to the stress and psychological distress experienced by Latinx people across various social contexts. Some of Dr. Archuleta's more recent work examines the egocentric social networks of Latinx people to better understand experiences with acculturation, negative social exchange, and physical and mental health outcomes.

Dr. Ami Moore's current research interests center around racial and ethnic disparities in different areas such as clinical trial participation, obesity, disabilities, and mental health. She also conducts health services research looking at determinants of support for government obesity intervention programs and factors that influence long term care funding schemes.

Sadaf Sedaghatshoar is a doctoral candidate at the Kent School of Social Work and Family Science at the University of Louisville, with a background in clinical psychology. Her research focuses on cancer survivorship, fertility preservation decision-making, and psychosocial oncology, with an emphasis on patient-centered care and shared decision-making. Her work also examines behavioral and psychosocial factors related to HIV research and HIV prevention.

Shameem Varikkodan is a trained psycho-oncology professional with 10 years of clinical experience supporting cancer patients and families. He holds an M.Phil. in Psycho-Oncology from Cancer Institute (WIA) and is pursuing a Ph.D. in Social Work at the Raymond A. Kent School of Social Work and Family Science, University of Louisville. His work spans psycho-oncology, tobacco cessation, research, education, and advocacy. His research interests include cancer prevention, myths and misinformation, intergenerational communication, health-seeking behavior, palliative and end-of-life care, quality improvement, implementation research, and evidence-based psychosocial interventions in cancer care.

Jennifer Rowe is a librarian at the University of North Texas. As a subject librarian for ten years, she has focused on supporting faculty and student research in the social sciences, including evidence synthesis research. Her research on the association between engagement with the library and student success has been published in College & Research Libraries and Performance Measurement and Metrics journals.

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Appendix 1

Keyword Search used for Medline via EBSCOhost

S1	AB (immigrant OR migrant OR refugee OR foreign born OR asylum seeker) OR TI (immigrant OR migrant OR refugee OR foreign born OR asylum seeker) OR MH (emigrants and immigrants OR refugees)
S2	AB (women OR female OR woman) OR TI (women OR female OR woman) OR (MH female)
S3	AB (Afro OR Caribbean OR Black OR African OR African descent) OR TI (Afro OR Caribbean OR Black OR African OR African descent) OR MH (Black or African American OR Black people OR African people+)
S4	MH (heart diseases OR cardiovascular diseases OR HIV OR neoplasms OR medical oncology) OR AB (cardiovascular OR “heart disease*” OR cancer OR oncology OR HIV OR AIDS) OR TI (cardiovascular OR “heart disease*” OR cancer OR oncology OR HIV OR AIDS)
S5	AB (“social determinant* of health” OR SDOH OR SDH OR “social risk factor*”) OR TI (“social determinant* of health” OR SDOH OR SDH OR “social risk factor*”) OR MH (Risk factors OR social determinants of health) OR AB (“health disparit*” OR “health inequit*” OR “health literacy” OR “health communication” OR “health education” OR “health knowledge” OR “health information” OR “health insurance” OR prescription N3 access OR “health care access” OR telehealth N3 access OR uninsured OR underinsured OR “preventative care” OR “health screening” OR “evidence based care” OR “birth control” OR prevention OR “substance use treatment” OR “health status” OR “health determinants” OR disease OR “chronic illness” OR “quality of care”) OR TI (“health disparit*” OR “health inequit*” OR “health literacy” OR “health communication” OR “health education” OR “health knowledge” OR “health information” OR “health insurance” OR prescription N3 access OR “health care access” OR telehealth N3 access OR uninsured OR underinsured OR “preventative care” OR “health screening” OR “evidence based care” OR “birth control” OR prevention OR “substance use treatment” OR “health status” OR “health determinants” OR disease OR “chronic illness” OR “quality of care”) OR MH (health services accessibility OR health literacy OR preventative health services OR quality of health care OR chronic disease OR evidence-based practice OR medically uninsured OR health status disparities OR insurance, health OR access to primary care) OR AB (education N3 access OR education N3 quality OR “job opportunit*” OR “economic stab*” OR employment OR poverty OR income) OR TI (education N3 access OR education N3 quality OR “job opportunit*” OR “economic stab*” OR employment OR poverty OR income) OR MH (educational status OR education OR employment OR poverty areas OR income OR poverty OR economic stability) OR AB (housing OR “housing secur*” OR neighborhood OR “built environment” OR “environmental health” OR transportation N3 access OR “air pollution” OR “clean air” OR “water pollution” OR “clean water” OR “physical activity” OR +exercise) OR TI (housing OR “housing secur*” OR neighborhood OR “built environment” OR “environmental health” OR transportation N3 access OR “air pollution” OR “clean air” OR “water pollution” OR “clean water” OR “physical activity” OR exercise) OR MH (neighborhood characteristics OR social environment OR home environment OR housing quality OR environmental pollution OR air pollution OR water pollution OR exercise) OR AB (food N3 access OR “food secur*” OR “food secure*” OR hunger OR “nutritious food” OR nutrition OR healthy N3 eating OR healthy N3 food OR “food desert”) OR TI (food N3 access OR “food secur*” OR “food secure*” OR hunger OR “nutritious food” OR nutrition OR healthy N3 eating OR healthy N3 food OR “food desert”) OR MH (food deserts OR access to healthy foods OR food insecurity OR food security OR Diet, Healthy OR fast foods OR healthy lifestyle) OR AB (“social support” OR “social inclusion” OR marginaliz* OR discriminat* OR stigma OR barrier OR racis* OR “social engagement” OR “family engagement” OR “civic engagement” OR “community support”) OR TI (“social support” OR “social inclusion” OR marginaliz* OR

	discriminat* OR stigma OR barrier OR racis* OR “social engagement” OR “family engagement” OR “civic engagement” OR “community support”) OR MH (social participation OR social inclusion OR social support OR psychosocial support systems OR family support OR community support OR social integration OR social stigma OR social cohesion OR social discrimination OR social marginalization OR racism OR systemic racism)
S6	(S1 AND S2 AND S3 AND S4) AND (S5)
	Limit to English
	Limit to peer-reviewed