



The Role of Acculturation and Social Capital in Access to Health Care: A Meta-study on Hispanics in the US

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Abstract

A meta-study of 83 articles published from 1981 to 2016 was conducted on Hispanics access to health care in the US. Few of these studies have included acculturation and even fewer the role of social capital as important factors that impact health-care access for this population. Among those that do include these two factors, there is confusion as to how they are defined and operationalized. Acculturation and social capital could serve to overcome some of the structural barriers in place that manifest stronger among Hispanics who are relatively newcomers to a healthcare system that is highly complex to navigate. The majority of studies included in this systematic review of the literature are in public health journals, which do not focus on sociological aspects as much. This study exposes the need to expand the worldviews used in the literature in order to enrich our understanding of access to health care for Hispanics.

Keywords Hispanics · Latinos · Access to health care · Acculturation · Social capital

Introduction

Access to health care is defined as “the degree to which people are able to obtain appropriate care from the healthcare system in a timely manner” [1, p. 411]. For the past half century healthcare access for Hispanics¹ has been problematic. Hispanics represent the largest group (based on Census classifications) recurrently showing the lowest access to health care in the country, as measured by several studies that quantify rates of uninsured and percentages who lack a primary care physician [2–7]. About 45% of the total uninsured are

Latinx. Within groups, Latinx consistently show the highest rates of uninsured (29%) when compared to non-Hispanic-whites (11%), blacks (19%), or Asians (15%) [8, 9].

Several factors—such as income, ethnicity and lack of insurance—that impact healthcare access for Hispanics have been measured through the years [3, 5, 8–17]. Acculturation and social capital, have also been explored, but to a lesser degree. In this paper we apply a meta-study to identify studies in the last 35 years that have explored or measured acculturation and social capital as factors that influence access to health care for this population. The goal is to first expose if and how other scholars have studied the impact of such on Hispanics’ access to health care in the US. As a result, we hope to illustrate the need for more research that can better conceptualize and measure these two factors. We believe these two factors can enhance access when we consider the complexity of the American healthcare system and the fact that a significant portion of Hispanics are foreign-born (about 34%) [18].

The current healthcare crisis, in which Latinx represent the largest group negatively affected, can be summarized

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¹ In this paper we use the term Hispanic and Latinx interchangeably to refer to the population in the US that self-classify themselves as immigrants or descendants of immigrants from Latin American countries, mostly those that have been colonized by Spain. We recognize these terms are context based (i.e. they vary in their definition in other parts of the world).

Table 1 Healthcare spending comparisons among developed countries

| Country | Healthcare spending as % of GDP (2013) | Total healthcare spending per capita (2013) | Total tax money spent per capita (2013) | Total out of pocket spent per capita (2013) | Percentage not covered by insurance (2011) (%) |
|----------------|--|---|---|---|--|
| United States | 17.1 (1st) | \$9086 (1st) | \$4197 (3rd) | \$1074 (2nd) | 15.7 |
| France | 11.6 (2nd) | \$4361 | \$3247 | \$277 | |
| Sweden | 11.5 (3rd) | \$5153 | \$4126 | \$726 | |
| Germany | 11.2 | \$4920 | \$3677 | \$649 | |
| Netherlands | 11.1 | \$5131 | \$4495 (2nd) | \$270 | |
| Switzerland | 11.1 | \$6325 (2nd) | \$4178 | \$1630 (1st) | |
| Denmark | 11.1 | \$4847 | \$3841 | \$625 | |
| New Zealand | 11.0 | \$3855 | \$2656 | \$420 | |
| Canada | 10.7 | \$4569 | \$3074 | \$623 | |
| Japan | 10.2 | \$3713 | \$2695 | \$503 | 1.5 |
| Norway | 9.4 | \$6170 (3rd) | \$4981 (1st) | \$855 (3rd) | |
| Australia | 9.4 | \$4115 | \$2614 | \$771 | |
| United Kingdom | 8.8 | \$3364 | \$2802 | \$321 | |
| OECD median | | \$3661 | \$2598 | \$625 | |

Elaborated by authors from various sources cited in text

through facts that position the US as the country with the most expensive, most complex and most inefficient healthcare system in the developed world (Table 1) [19, 20]. The US is also the country that leaves the most people uncovered [21, 22]. When we account for the percentage of GDP spent on health care, the US spends on average about 17% of its GDP. Looking at the per capita amount spent on health care, the US ranks first (\$9086). In terms of tax money spent on health care (mainly Medicaid and Medicare), the US lines third highest (\$4197/per capita) even though it is the only wealthy country with no universal access. Further, the amount spent on a per capita basis by the government on Medicaid and Medicare, does not include the \$250 billion in subsidies spent on employment sponsored insurance. Even more striking is when we compare the percentage of the population covered by the government, 34% in the US, to the UK, for which all residents are covered at one of the lowest rates of tax money spent on a per capita basis (\$2802). These comparisons accentuate the relevance of Hispanics being placed as the largest group lacking access to health care in a country that finds itself behind others in a global context. Thus, the lack of acculturation to such a complex system and the low levels of social capital possessing the proper resources to access the system are important to understand.

Background

The most widely used measures of Hispanics' healthcare access are insurance status, having a primary care provider, and having had a visit to a doctor's office in the last year [2, 4, 5, 8, 9, 11, 16, 23–31]. As the results from the

meta-study will later illustrate, among the main aspects identified as impacting access to healthcare for Latinx are income, ethnicity, citizenship and immigration status, gender, age, geographical location, education, and types of jobs. These issues are however highly interconnected. For instance, having lower levels of education are tied to the types of jobs Latinx can access, which in turn impact their income. The median income of Latinx is lower (by \$18,000) than the median income of non-Hispanic whites [32]. Latinx with undocumented status are usually of lower educational levels and therefore access jobs that pay less and generally don't offer employer-based insurance [12, 27, 33, 34]. Geographical locations in the south and southwest are tied to populations with higher rates of uninsured, but that likewise concentrate the highest proportions of Latinx [32].

Acculturation has been measured by some studies as a factor that impacts healthcare access for Hispanics [4, 11, 35–38]. Similarly, social capital appears in some papers, although much less so than acculturation, but almost no study uses the term [13, 39–42]. Nonetheless, as this meta-study will illustrate, there are several inconsistencies in how these two variables are termed, defined and measured. The study done by Maxwell et al. [41] analyzing the state of Massachusetts case, on which the ACA was modeled, shows that simply enrolling more Hispanics in healthcare insurance alone will not guarantee better access for this population. Hence, we believe these two variables deserve more attention, although not to replace the analyses that found other factors significant, but rather to complement.

We rely on Berry's [43, p. 698] definition of acculturation focusing on what he refers to as the individual level:

“Acculturation is the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members. At the group level, it involves changes in social structures and institutions and in cultural practices. At the individual level, it involves changes in a person’s behavioral repertoire. These cultural and psychological changes come about through a long-term process, sometimes taking years, sometimes generations, and sometimes centuries. Acculturation is a process of cultural and psychological changes that involve various forms of mutual accommodation, leading to some longer-term psychological and sociocultural adaptations between both groups.”

We proceed under the assumption that the process of acquiring stocks of cultural capital that pertain specifically to the American healthcare system characterizes the process of acculturating to such. Consequently, the process of acculturating to the healthcare system links to the term health literacy. Yet, due to the different types of skills and knowledge needed to navigate the complex healthcare system, it is important to address literacy with respect to *accessing healthcare services* separate from the capacity to address one’s own health. Understanding how to navigate the healthcare system is then what we refer to as being acculturated or having the proper capabilities to access health care. Although acculturation to the healthcare system is necessary for anyone to access it, it must be noted that for Hispanics, among whom the majority are immigrants or descendants of recent immigrants, acculturation is more relevant than those who have been established in the US for several generations.

Balcazar et al. [4] find that being acculturated to the healthcare system goes beyond just being fluent in English and having insurance. Dembe et al. [44] prove that difficulties in healthcare navigation is an obstacle for Hispanics, but community navigators have been able to diminish such barriers. Durden and Dean [35] show that even after accounting for immigration status and sociodemographic factors, disparities in health insurance status persist. Nonetheless, Echeverria and Carrasquillo [36] demonstrate that educating people about the importance of preventive medicine can change some of Latinx’s cultural views toward health care. These studies have proven that acculturation is an important factor.

The concept of social capital is closely tied to acculturation when it comes to accessing resources. We rely on Fukuyama’s [45, p. 2] definition of social capital:

“social capital is an instantiated informal norm that promotes cooperation between two or more individuals.”

There are now three commonly acknowledged types of social capital in the social sciences literature: bonding social capital, bridging social capital and linking social capital [46]. The three forms are based on the following foundations [46, p. 6]:

- “Bonds: links to people based on a sense of common identity (“people like us”)—such as family, close friends and people who share our culture or ethnicity.
- Bridges: links that stretch beyond a shared sense of identity, for example to distant friends, colleagues and associates.
- Linkages: links to people or groups further up or lower down the social ladder.”

The general review on social capital leads us to infer that the three types of social capital can all act as enablers to access healthcare [47–55]. However, in the case of immigrants (mainly those of 1st, 2nd or 3rd generation) the answer may be that it depends on how integrated (i.e. acculturated) their networks of social capital are to the healthcare system. For instance, if most of the family members with whom a Mexican immigrant interacts with are residing in Mexico, then bonding social capital, although useful for other types of support, is useless to access health care in the US.

Documet and Sharma [13] find that *informal arrangements* that are based on social networks seem to be very useful in helping Latinx navigate the complex healthcare system. Wilkin and Ball-Rokeach [42] demonstrate how Latinx who are better connected to other people who understand the system have better access regardless of having insurance or a regular source of care. Three identified studies find that bridging forms of social capital tend to enhance access for this group [41, 56, 57]. Katz et al. [40] go deeper by analyzing differences between Hispanics of different socioeconomic status. They identify that better access to bridging social capital is found to better connect Latinx of higher socioeconomic status to healthcare resources which are not available to those of lower levels. Studies are therefore demonstrating the importance of social capital, but even more so, the importance to differentiate by type.

In this paper, the three forms of social capital will be analyzed further in conjunction with acculturation. We pose that these two variables need to be included more systematically in the literature that focuses on Hispanics’ healthcare access. We believe these two socio-cultural factors are important when we consider the complexity of the American healthcare system and the fact that a large portion of Latinx are relatively newcomers to such a system. Newcomers include not just current immigrants, but also those born in the US whose predecessors would be considered recent immigrants. As Balcazar et al. [4] illustrate, assimilation to the healthcare

system may take place over several generations. Thus, acculturation and social capital could serve to overcome some of the structural barriers in place. We believe this meta-study can help expose the need to improve the inclusion of these two variables in the literature on healthcare access for Hispanics. Moreover, by identifying the gaps in the literature, we aim to offer guidance on further research needed to help strengthen public policy recommendations.

Methods

Methodology

The methodology involves a meta-study that seeks to identify which and how studies have included the factors of acculturation and social capital as meaningful variables that impact access to health care for Hispanics. Quantitative, qualitative, literature reviews and mixed-methods studies are included. We first identify what variables have been mainly classified as relevant (i.e. explored in non-quantitative articles or measured in quantitative studies) and if acculturation and social capital have been included among such factors. We also analyze how acculturation and social capital have been defined and measured. The data extraction is done through coding of collected studies which are portrayed in tables that illustrate frequencies and percentages. The methodology applied can be considered a typical vote counting approach in meta-analyses [58, 59]. This study was reviewed and approved by the Institutional Review Board (IRB) at University of Missouri as part of a broader project involving a survey study on Hispanics' access to healthcare in the state of Missouri.

Selection of Studies

Four databases were used. *Pais International*, was selected due to its emphasis on contemporary social, economic and political issues on public policy in the social sciences. The selected search phrase included: "hispanics AND access to healthcare." Different phrases such as, "Hispanics health disparities", "Hispanics socioeconomic disparities in health", "racial and ethnic disparities in health care", "Hispanics healthcare disparities," and "disparities in healthcare by ethnicity" returned a different set of titles, with the exception of "Latinos AND access to healthcare," which returned nearly the same list as the selected one. After browsing through the different set of titles the selected phrase was clearly giving the most extensive and relevant results, providing a total of 94 articles.

Academic Search Complete, *Scopus*, and *Google Scholar* were the other three databases used due to their interdisciplinary coverage. Two keyword phrases were selected: "hispanics access to healthcare" and "latinos access to healthcare". *Academic Search Complete* initially provided 35 articles, which was the longest list among all keywords tried. *Scopus* gave 3003 results, which were narrowed down to 913 by limiting the search to the social sciences, and further narrowed to a total of 372 by requesting to include only studies in the US. *Google Scholar* provided a total of 93,400 articles when using the search phrase "hispanics access to healthcare." Titles were browsed and the search was initially cut at 500 when results start to focus more on specific diseases and general health and less on access to health care. When using the search phrase "Latinos access to healthcare" *Google Scholar* came up with 41,700 results. Titles were browsed and then cut at 200 when results start to focus more on specific diseases and health overall and less on access to health care. Many of the articles that resulted from the two keywords' phrases in *Google Scholar* were duplicates.

The first round of selection came from reading the abstracts from the 94 articles obtained from *Pais International*, 35 articles obtained from *Academic Search Complete*, 372 results from *Scopus*, and 700 from *Google Scholar*. The final selection from this first round gave a total of 40 articles published between 1981 and 2016. From those 40 articles, 25 more articles were selected from their list of references after browsing through all titles and reviewing abstracts. The third and final round of searching involved an additional selection process of articles from the list of references in those 25 articles attained in the second round. A final count of 85 articles were selected after three rounds using a combination of keyword searches and selection from relevant references. Two articles were eliminated after full-text review, leaving the final count included in this meta-study at 83 (Table 6).

Multiple sets of keywords were not used in the selection for three reasons. First, when using the two selected phrases, the lists obtained under each database were extensive and inclusive. Second, when trying out other combinations of search terms, there were too many repetitive titles showing up in the various lists. Hence, these two phrases seemed to provide a solid way to obtain the broadest range of sources. Third, the additional selections made after reviewing the references of included studies provided a good complement to the initial search mechanism. One way to feel confident about the mechanisms used was the presence of repetitive sources encountered in this stage also increased our confidence about the overall literature search procedures.

Data Extraction

Articles with any type of analysis on issues that impact Latinx's access to health care in the US were included. The first step involved identifying main factors included in the 83 studies and further separating those that covered acculturation and social capital (Tables 2, 3 and 4).

Among those that included acculturation and social capital, studies were further classified as specifically measuring the two concepts (labeled "YES" in Tables 2 and 3) or as only alluding to them (labeled "ALLUDED" in Tables 2 and 3). In some of these studies, the terms acculturation and social capital were not used, but other terms were identified as fitting into the definition of or being linked to the two concepts. Terms identified as being tied to acculturation include: cultural barriers [25]; community health navigators [44]; cultural practices [60]; educational efforts on preventive health [17]; cultural beliefs [61]; cultural and linguistic differences [61]; health literacy [39]; navigating an unfamiliar care system [41]; cultural factors [37, 41]; health education services [62] and; cultural competency [63].

Terms identified as representing social capital in the literature include: informal arrangements [13]; social support (45, 69); health educational programs conducted by community groups [17]; social networks [6, 57]; networks [12]; interpersonal networks [12]; sense of community [12]; informal health communication ecology [40]; community-based organizations [41]; social integration [64]; patient navigators [56]; community health workers [56]; social health capital [57]; social support networks [65]; and integrated storytelling network [42].

Results

Four variables were identified in the literature as recurrent: ethnicity, Mexican ancestry or nativity, having insurance, and citizenship/immigration status (Table 4). In addition, the following appear often either as independent or control variables in quantitative studies or are discussed as relevant in non-quantitative studies:

- Age (16 studies): younger generation (ages 18-24) usually have lower access than older ones.
- Gender (14 studies): females tend to have better access than men.
- Marital status (10 studies): people who are married (and with children) tend to have better access than those who are single.

- Income (36 studies): households with lower income (still above federal poverty level, but low) and those in poverty have lower access than those of upper income.
- Education (24 studies): people with lower education levels in general have lower access when compared to those with higher levels.
- Geographic location (14 studies): there is a higher concentration of households with lower access in states located in the South and West where there are also higher concentrations of Hispanics. In addition, some studies measure geographic distribution within cities, counties or states where there tends to be higher concentrations of Latinx [66].
- Sector in which individual is employed (3 studies): people who are employed in agriculture, forestry, fishing, mining and construction tend to have less access than those in other sectors. Also, those employed by public sector tend to have better access than those in private sector.
- Size of firm in which individual is employed (2 studies): those employed by small firms tend to have lower access than those working for larger ones.
- Job status (17 studies): people who are employed in positions that are among the lowest paid (even within same large firms) tend to have lower access than those in upper positions. These positions include both part-time and full-time. Job status affects potential access usually because either the firm does not offer insurance for lower-paid and/or part-time positions or, when offered it is too costly based on salaries earned.
- Cost/Affordability of insurance and/or health care services (8 studies): this variable is taken into account for those who do not have insurance but also among those who have insurance. Some studies measure the increase in cost of premiums and deductibles over time since the 1990s.

Linked to these variables, Hispanics are overall: over-represented in the younger generation population [67]; have a higher percentage of its population in lower income and poverty brackets [25], [35]; have a higher representation of workers employed in agriculture, forestry, fishing, mining and construction [33]; tend to work for smaller firms [68], and there are higher concentrations of Hispanics established in states located in the South and West as well as within cities, states or counties where there are higher poverty concentrations [66]. Lower paid jobs where Hispanics are overrepresented do not offer employer sponsored insurance in a country that primarily relies on this

Table 2 Studies covering acculturation

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|---|---|--|--|
| 4 | 2015 | Balcazar, A. J., Grineski, S. E., & Collins, T. W. | The durability of immigration-related barriers to healthcare access for Hispanics across generations | Hispanic Journal of Behavioral Sciences | YES. Acculturation, referred to as <i>cultural capital for healthcare access</i> , is tested through several proxy variables and found to be a barrier beyond 3rd generation Hispanic immigrants. It is specified that this kind of capital goes beyond just being fluent in English and having health insurance |
| 13 | 2006 | Callahan, S. T., Hickson, G.B., & Cooper, W. O. | Health care access of Hispanic young adults in the US | Journal of Adolescent Health | YES. Variability in rates of uninsurance and health care access/utilization is tested and compared among Hispanic subgroups. The differences found among subgroups is attributed mainly to citizenship and sociodemographic factors, but authors also point that these do not account for all differences. Although acculturation is not specifically mentioned, cultural barriers, which is assumed vary by country of origin, are analyzed in the discussion. Overall, study recommends that the heterogeneity present within the Hispanic population should be taken into account when addressing issue of access. Term used <i>cultural barriers</i> |
| 14 | 2000 | Carrasquillo, O., Carrasquillo, A. I., & Shea, S. | Health insurance coverage of immigrants living in the US: Differences by citizenship status and country of origin | American Journal of Public Health | ALLUDED. Study does not discuss acculturation, but it is alluded that acculturation is not the big issue to access health care as immigration laws that inhibit many Hispanics to obtain insurance are |
| 18 | 2013 | Dembe, Allard E., Biehl, Jeffrey M., Smith, Alicia D. & Garcia de Gutierrez, Teresa | Employers' role in helping Latino workers obtain access to health care services: Results of a community-based pilot demonstration project | Journal of Immigrant and Minority Health | YES. Acculturation not discussed but difficulties in navigating the healthcare system allude to that. Study shows how a qualified community health navigator can be of great help in enhancing access among Hispanics, despite the absence of conventional health insurance coverage. Term used <i>community health navigators</i> |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|--------------------------------------|--|--|--|
| 20 | 2004 | Documet, P. I., & Sharma, R. K. | Latinos' health care access: Financial and cultural barriers | Journal of Immigrant Health (Currently Journal of Immigrant and Minority Health) | YES. Although study finds no significant impact on acculturation on the quantitative portion, several cultural aspects emerged in the qualitative portion of study, including preference for warmer relationships with providers. Findings conclude that even if all Latinos had health insurance, there will still be large racial/ethnic disparities in access due to cultural issues. Acculturation measured using a scale tested in 1987 among Hispanics |
| 22 | 2013 | Durden, Elizabeth T. & Dean, Lucy G. | Health insurance coverage of Hispanic adults: An assessment of subgroup difference and the impact of immigration | The Social Science Journal | YES. Acculturation and assimilation used interchangeably. Acculturation is tested based on time living in US and different Hispanic subgroups are compared. Study finds that disparities in health insurance coverage persist among subgroups even after accounting for immigration status and sociodemographic factors. The final analysis on the ACA concludes that the intersection with immigration legislation (i.e. structural barriers) will continue to be the major barrier to access among Hispanics, with acculturation to the system also being an issue |
| 23 | 2006 | Durden, T. E., & Hummer, R. A. | Access to healthcare among working-aged Hispanic adults in the United States | Social Science Quarterly | ALLUDED. Study does not measure acculturation, but conclusions hint to the fact that acculturation may not be as significant of a factor as structural barriers related to immigration status and other usual barriers also faced by native-born individuals in the US |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|---|--|---------------------------------------|---|
| 24 | 2006 | Echeverria, Sandra E., & Carrasquillo, Olveen | The roles of citizenship status, acculturation, and health insurance in breast and cervical cancer screening among immigrant women | Medical Care | YES. Acculturation is tested using a scale published by Marin et al. in 1987 but it is not clearly defined or explained. Disparities found in screening among Latinas and other groups disappear when accounting for acculturation. This study raises the importance of acculturation by saying that when acculturated to the importance of screening, sociodemographic factors and insurance coverage are not as important anymore for Latinas to access screenings |
| 25 | 2006 | Escobedo, L. G., & Cardenas, V. M. | Utilization and purchase of medical care services in Mexico by residents in the United States of America, 1998-1999 | Revista Panamericana de Salud Publica | ALLUDED. Medication purchases across the border in Mexico by NM residents are concluded to be linked to cultural practices common in Mexico. The cultural practices mentioned here refer to being acculturated to a specific type of healthcare system, which varies by country based on domestic legislation (in this case regulation of drugs between the US and Mexico). Cultural barriers (such as types of relationships formed between patients and providers) may also be impacting crossing the border for medical services as well. Still, structural barriers, mainly tied to insurance coverage, are found to be the key problem in accessing care in the US and the reason why so many cross the border for services. Term used <i>cultural practices</i> |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|---|---|--|--|
| 27 | 2010 | Fonseca-Becker, Fannie, Perez-Patron, Maria J., Munoz, Beatriz, O'Leary, Michael, Rosario, Evelyn & West, Sheila K. | Health competence as predictor of access to care among Latinos in Baltimore | Journal of Immigrant and Minority Health | YES. Health Competence is tested through several variables that fall under two categories: "enabling factors" and "perceived barriers" which are found to impact access on top of socio-demographic factors. Acculturation is measured through English proficiency and length of residency, as part of the Health Competence scale used and is found to be a contributing factor in access |
| 29 | 1991 | Ginzberg, E. | Access to health care for Hispanics | The Journal of the American Medical Association | ALLUDED. The discussion on the need to increase educational efforts on preventive health alludes to being acculturated to the American healthcare system, although it is not specifically discussed. Term used <i>educational efforts on preventive health</i> |
| 31 | 2006 | Graves, J.A. & Long, S.K. | Why do people lack health insurance? | Urban Institute (Health Policy Online: Timely Analyses of Current Trends and Policy Options series.) | ALLUDED. Although acculturation was not specifically discussed here, the fact that less than 3% of uninsured Hispanics reported they did not need insurance means that the cost of insurance may be more relevant than cultural ideas linked to access for Hispanics |
| 32 | 2009 | Gresenz, C.R., Rogowski, J. & Escarce J.J. | Community demographics and access to health care among US Hispanics | Health Research & Educational Trust | ALLUDED. Acculturation is not discussed in this paper, but the fact that US-born Mexican Americans who reside in heavily populated Spanish-speaking communities have less access than those who live in other communities hints to the idea that, a low level of acculturation to the healthcare system may be embedded in heavy Spanish-speaking communities |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|---|---|--|---|
| 40 | 1991 | Hubbell, F. A., Waitzkin, H., Mishra, S. I., Dombrock, J., & Chavez, L. R. | Access to medical care for documented and undocumented Latinos in a southern California county | Western Journal of Medicine | YES. This article indirectly measures acculturation. Findings do not support the notion that health beliefs in the traditional Mexican culture strongly influence the behavior of Latinos seeking medical care. It is structural factors, primarily related to insurance coverage, that impact access the most for this group according to their findings. Term used <i>health beliefs in the traditional Mexican culture</i> |
| 41 | 2015 | Jadav, S., Rajan, S. S., Abughosh, S., & Sansgiry, S. S. | The role of socioeconomic status and health care access in breast cancer screening compliance among Hispanics | Journal of Public Health Management and Practice | ALLUDED. Study does not address acculturation, but findings corroborate that low rates of screening as part of preventive medicine are not due to cultural beliefs, but structural barriers. When Hispanic women are educated about screening, the disparities with non-Hispanic white women practically disappear. Terms used <i>cultural and linguistic differences and cultural beliefs</i> |
| 42 | 2002 | Jones, Mary Elaine, Cason, Carolyn L. & Bond, Mary Lou | Access to preventive health care: Is method of payment a barrier for immigrant Hispanic women? | Women's Health Issues | ALLUDED. Acculturation is not specifically measured, but it is alluded that Hispanics who are not acculturated to the system lack access |
| 43 | 2013 | Kamimura, Akiko, Christensen, Nancy, Tabler, Jennifer, Ashby, Jeanie & Olson, Lenora M. | Patients utilizing a free clinic: Physical and mental health, health literacy, and social support | Journal of Community Health | ALLUDED. Health literacy, as the part that applies to accessing healthcare services, included in this study can be tied to acculturation of the healthcare system and is found to impact access. Terms used <i>health literacy</i> |
| 45 | 2001 | Ku, L., & Matani, S. | Left Out: Immigrants' Access To Health Care And Insurance | Health Affairs | ALLUDED. Study briefly mentions that immigrants' health care use increases as they acculturate (but no definition or further analysis provided). |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|--|---|---|--|
| 46 | 2005 | Lara, Marielena, Gamboa, Cristina, Kahramanian, M. Iya, Morales, Leo S. & Hayes Bautista, David E. | Acculturation and Latino health in the United States: A review of the literature and its sociopolitical context | Annual Review of Public Health | YES. The term acculturation is extensively analyzed providing a historical perspective on the use of the term as well as how it's been used interchangeably with assimilation |
| 49 | 2001 | Macias, E.P. & Morales L.S. | Crossing the border for health care | Journal of Health Care for the Poor and Underserved | ALLUDED. The fact that the majority of people crossing the border for care would prefer to access care in the US alludes to the lack of acculturation to the complex healthcare system they might have due to the fact that there is available assistance at the local level, for which most would qualify |
| 50 | 2001 | Manos, M. Michele, Leyden, Wendy A., Resendez, Cynthia I., Klein, Elizabeth G., Wilson, Tom L. & Bauer, Heidi M. | A community-based collaboration to assess and improve medical insurance status and access to health care of Latino children | Public Health Reports | ALLUDED. The complexity and bureaucratic healthcare system are proven to be a barrier to access health care for Latino children. The lack of understanding of how the system functions alludes to the need of being acculturated to the system |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|--|--|---|--|
| 52 | 2011 | Maxwell, J., Cortes, D. E., Schneider, K. L., Graves, A., & Rosman, B. | Massachusetts' health care reform increased access to care for Hispanics, but disparities remain | Health Affairs | YES. Although acculturation is just briefly mentioned, one of the main recommendations is to simplify enrollment and reenrollment processes of the state's health insurance system in order to improve access for Latinos. Also recommend to provide assistance in finding a provider and navigating an unfamiliar care system. These factors hint precisely to the lack of acculturation to the complex healthcare system. There is confusion first in getting insurance, then in using insurance, then in keeping insurance continuously, and finally finding and keeping a primary care provider. Just existing outreach and enrollment programs that are more common across the nation may not be enough (i.e. getting them insured) for increasing access for Hispanics. Hispanics in this study serve to illustrate how awkward, expensive and complex the American healthcare system has come to be. Terms used <i>navigating an unfamiliar care system</i> and <i>cultural factors</i> |
| 54 | 2002 | Morales, Leo S., Kington, Raynard S., Valdez, Robert O. & Escarce, Jose J. | Socioeconomic, cultural, and behavioral factors affecting Hispanic health outcomes | Journal of Health Care for the Poor and Underserved | YES. Acculturation reviewed in this paper as part of health paradox (as access increases, health worsens) assumed among Latinos in the US. Health paradox is confirmed overall for Hispanics, but, subgroups do not confirm the paradox: health paradox is most striking among Mexican origin; when analyzing by disease paradox disappears; Puerto Ricans appear to be the ones least exhibiting health paradox |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|---|--|---|---|
| 56 | 2008 | Pearson, W.S., Ahluwalia, I.B., Ford, E.S., & Mokdad, A.H. | Language preference as a predictor of access to and use of healthcare services among Hispanics in the US | Ethnicity and Disease | YES. Results suggest that acculturation does play a role with access and is linked to time spent in the US, citizenship status, and type of employment. Acculturation is measured through citizenship and employment status |
| 58 | 2010 | Perez-Escamilla, Rafael | Health care access among Latinos: Implications for social and health care reforms | Journal of Hispanic Higher Education | ALLUDED. Acculturation not discussed in this study, but the finding that patient navigators/community health workers increase access for Latinos allude to the importance of the need to acculturate to the health-care system |
| 60 | 2013 | Ruiz, Erika, Aguirre, Regina T.P. & Mitschke, Diane B. | What leads non-US-born Latinos to access mental health care | Social Work in Health Care | YES. The Marin & Gamba (1996) scale is used to measure acculturation. Authors conclude acculturation (marginalized, separated, integrated, assimilated) is not found to be a factor in access (but the English portion of the scale is found to be significant, which alludes to assimilation being a factor) |
| 63 | 1995 | Schur, C. L., Albers, L. A., & Berk, M. L. | Health care use by Hispanic adults: Financial vs. non-financial determinants | Health Care Financing Review | YES. Acculturation is referred to as <i>cultural factors</i> and measured through “language spoken,” but is found to not be a significant factor as opposed to financial factors. Insurance is identified as primary financial factor |
| 66 | 2007 | Sharma, Ravi K., McGinnis, Kathleen A. & Documet, Patricia I. | Disparities in health status and health-service utilization among Hispanic ethnic subgroups | Social Work in Public Health (formerly Journal of Health & Social Policy) | ALLUDED. Acculturation is not mentioned nor discussed, but some of the considerable heterogeneity in health status and healthcare utilization among Hispanic subgroups could possibly tie to cultural differences that impact access. The majority of these differences though are tied to immigration status and socioeconomic factors that also widely differ among subgroups |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|--|--|---|--|
| 68 | 1990 | Solis, Julia, M., Marks, Gary, Garcia, Melinda, & Shelton, David | Acculturation, access to care, and use of preventive services by Hispanics: Findings from HHANES 1982-84 | American Journal of Public Health | YES. Acculturation (measured by level of spoken and written English) does not predict access as much as structural factors |
| 70 | 2013 | Talavera-Garza, L., Ghaddar, S., Valerio, M., & Garcia, C. | Health care access and utilization among Hispanic manufacturing workers along the Texas-Mexico border | Journal of Health Care for the Poor and Underserved | ALLUDED. The study does not measure or discuss acculturation, but one of their main recommendations is for employers to offer worksite health education services on the use of preventive care, which alludes to acculturation of the American healthcare system. Term used <i>health education services</i> |
| 72 | 2013 | Torres, Essie, Erwin, Deborah O., Treviño, Michelle & Jandorf, Lina | Understanding factors influencing Latina women's screening behavior: A qualitative approach | Health Education Research | ALLUDED. Although this study only once mentions acculturation as an issue, findings overall hint to the fact that women who were more acculturated to the healthcare system had better access. Term used <i>cultural competency</i> |
| 73 | 2008 | Torres, Myriam, Parra-Medina, Deborah, Bellingier, Jessica, Johnson, Andrew O. & Probst, Janice C. | Rural hospitals and Spanish-speaking patients with limited English proficiency | Journal of Healthcare Management | ALLUDED. This study measures barriers more from a providers' perspective, so the lack of cultural competency among healthcare providers can be linked to acculturation but more from the side of the receiving community |
| 76 | 2013 | Valenzuela, Jessica M., McDowell, Tiffany, Cencula, Lindsey, Hoyt, Lupe & Mitchell, Monica J. | ¡Hazlo bien! A participatory needs assessment and recommendations for Health Promotion in Growing Latino Communities | American Journal of Health Promotion | ALLUDED. Although acculturation is briefly mentioned as part of the health paradox, in general the study is focusing on the importance of helping Latinos to acculturate to the healthcare system in order to improve access |

Table 2 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Acculturation included as variable that impacts access |
|----------------|----------------|---|---|---|---|
| 77 | 2009 | Vargas Bustamante, Arturo, Fang, Hai, Rizzo, John A. & Ortega, Alexander N. | Understanding observed and unobserved health care access and utilization disparities among U.S. Latino adults | Medical Care Research and Review (formerly Medical Care Review) | YES. Although this study does not specifically label any variables as acculturation, the “country of origin” variable measures cultural differences among subgroups in the Latino population. The authors point out that cultural values regarding how people access health care in their home country impact this. It is also briefly stated that the acculturation process specifically tied to the healthcare system may take longer than other types of acculturation |

type of coverage. In full-time jobs that do offer employer sponsored insurance, blacks are far more likely to have insurance when compared to Hispanics [68]. As Heyman et al. [12] point out, there is no single factor that can be said impacts the low levels of access of health care among Hispanics, but it is rather a web of interrelated issues.

Three main highlights presented next summarize the more specific findings that pertain to the goal of this paper.

1. A plethora of published articles, as well as number of journals, on Hispanics’ access to health care exist in the field of public health, less so among other social sciences

There is sufficient evidence by now to conclude that Hispanics are the single largest group struggling with healthcare access in the US for the past half century. Nonetheless, most of the studies that quantify or explore this topic are concentrated in the public policy arena, meaning this may restrict the worldviews and types of variables being examined. In the past 35 years, from 1981 to 2016, a large portion of these publications have been in outlets that focus on public health and less so on other social sciences fields. The lack of involvement of other social sciences may be one reason why acculturation and social capital do not appear as much.

A total of 37 journals and 8 think tanks are included in this analysis. Public health (PH) dominates the disciplinary background of publications, with 25 journals (63% of 37) and four think tanks (50% of 8) belonging to this field. The 25 journals identified in public health are responsible for a total of 44 publications or 53% of total articles identified (Table 5). The four public health think tanks identified published seven studies.² Moreover, the majority of publications identified are peer-reviewed (71 articles; 85.5% of 83). The number of articles that focus on public health, whether peer reviewed journals or think tank publications, also represent the vast majority (51 articles or 61% of 83).

Publications in this meta-study illustrate that the issue of Hispanics being the largest group having the lowest access to health care has been a recurring problem since the 1960s. Data in the studies included were collected between the periods of 1975 and 2014, while the literature reviews, policy reviews and government report studies cite references that date from 1960 to 2014. Every article analyzed, with the exception of one, treats insurance (either explicitly or implicitly) as the first informal (before ACA) requirement to access medical services. When accounting solely for insurance, 53 (64%) of the articles, measure or discuss it as an important

² The centers include: UCLA Center for Health Policy Research, The Commonwealth Foundation, Health Research and Educational Trust, and The Henry J. Kaiser Family Foundation.

Table 3 Studies covering social capital

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Social Capital included as variable that impacts access |
|----------------|----------------|---|--|--|--|
| 4 | 2015 | Balcazar, A. J., Grineski, S. E., & Collins, T. W. | The durability of immigration-related barriers to healthcare access for Hispanics across generations | Hispanic Journal of Behavioral Sciences | ALLUDED. Social capital is not specifically measured, but it is discussed that as future generations of immigrants accumulate social capital, they are expected to improve their access as a result of that |
| 20 | 2004 | Documet, P. I., & Sharma, R. K. | Latinos' health care access: Financial and cultural barriers | Journal of Immigrant Health (Currently Journal of Immigrant and Minority Health) | YES. Although social capital is not specifically measured, the importance of social networks (<i>informal arrangements</i>) to access health care appeared in the qualitative portion of study. The social networks represent a form of social capital |
| 27 | 2010 | Fonseca-Becker, Fannie, Perez-Patron, Maria J., Munoz, Beatriz, O'Leary, Michael, Rosario, Evelyn & West, Sheila K. | Health competence as predictor of access to care among Latinos in Baltimore | Journal of Immigrant and Minority Health | ALLUDED. Bonding social capital is alluded but not specifically stated or measured as social capital. Term used <i>social support</i> |
| 29 | 1991 | Ginzberg, E. | Access to health care for Hispanics | The Journal of the American Medical Association | ALLUDED. Although social capital is not mentioned, discussion briefly recommends the use of community groups to educate Hispanics on preventive health care. Term used <i>health educational programs conducted by community groups</i> |
| 32 | 2009 | Gresenz, C.R., Rogowski, J. & Escarce J.J. | Community demographics and access to health care among US Hispanics | Health Research & Educational Trust | ALLUDED. Social capital is not explicitly measured or discussed, but <i>social networks</i> are discussed as a possible impact in heavily populated Spanish-speaking communities. For recent immigrants, living in areas more heavily populated by Spanish-speakers is associated with better access, the opposite is true for US-born Mexican Americans. The differences observed in access between more recent immigrants compared to US-born Hispanics, raise the importance for researchers to compare different types of social capital among different Hispanic sub-groups |

Table 3 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Social Capital included as variable that impacts access |
|----------------|----------------|---|---|---|--|
| 39 | 2009 | Heyman, J. M., Núñez, G. G., & Talavera, V. | Healthcare access and barriers for unauthorized immigrants in El Paso County, Texas | Family and Community Health | ALLUDED. Social capital is not explicitly analyzed here, but the resilience patterns discussed that promote access to health care, which included use of networks and sense of community, allude to social capital being an enabler in access. Terms used <i>networks</i> , <i>interpersonal networks</i> and <i>sense of community</i> |
| 43 | 2013 | Kamimura, Akiko, Christensen, Nancy, Tabler, Jennifer, Ashby, Jeanie & Olson, Lenora M. | Patients utilizing a free clinic: Physical and mental health, health literacy, and social support | Journal of Community Health | YES. But it is referred to as <i>social support</i> (not further specified) and is found to enhance access |
| 44 | 2012 | Katz, Vikki S., Ang, Alfonso, & Suro, Roberto | An ecological perspective on U.S. Latinos' health communication behaviors, access, and outcomes | Hispanic Journal of Behavioral Sciences | YES. The term <i>informal health communication ecology</i> index is treated in this study as social capital. What can be classified as bonding social capital (term not used in the study) can be detrimental to improve access for Hispanics of lower social status. Hispanics of higher social status have more valuable social capital overall that improves access |
| 52 | 2011 | Maxwell, J., Cortes, D. E., Schneider, K. L., Graves, A., & Rosman, B. | Massachusetts' health care reform increased access to care for Hispanics, but disparities remain | Health Affairs | YES. Social capital is not specifically mentioned, but <i>community-based organizations</i> that provided enrollment counseling services were found to be crucial in helping bridge disparities in insurance coverage. These organizations would be classified as bridging social capital |
| 55 | 2014 | Padilla, Yolanda C., Scott, Jennifer L., & Lopez, Olivia | Economic insecurity and access to the social safety net among Latino farmworker families | Social Work | ALLUDED. <i>Social integration</i> in this study can be related to social capital as an enabler to access welfare programs in the US |
| 58 | 2010 | Perez-Escamilla, Rafael | Health care access among Latinos: Implications for social and health care reforms | Journal of Hispanic Higher Education | YES. Social capital not discussed in this study, but the finding that <i>patient navigators</i> and <i>community health workers</i> increase access for Latinos refer to the importance of this type of social capital (i.e. bridging) that can be instituted at the community level |

Table 3 (continued)

| # from Table 6 | Year published | Authors | Title | Journal/Published by | Social Capital included as variable that impacts access |
|----------------|----------------|---|--|--------------------------------------|--|
| 72 | 2013 | Torres, Essie, Erwin, Deborah O., Treviño, Michelle & Jandorf, Lina | Understanding factors influencing Latina women's screening behavior: A qualitative approach | Health Education Research | YES. <i>Social health capital</i> (used as bridging social capital) emerged as a factor impacting screening utilization among Latinas. Also, "social networks" (used as bonding social capital) do appear to impact screening for Latinas |
| 76 | 2013 | Valenzuela, Jessica M., McDowell, Tiffany, Cencula, Lindsey, Hoyt, Lupe & Mitchell, Monica J. | ¡Hazlo bien! A participatory needs assessment and recommendations for Health Promotion in Growing Latino Communities | American Journal of Health Promotion | ALLUDED. Social capital is not discussed but the recommendations they give regarding the need to provide <i>social support networks</i> as part of health promotion programs allude to bridging social capital |
| 81 | 2011 | Wilkin, Holley A. & Ball-Rokeach, Sandra J. | Hard-to-reach? Using health access status as a way to more effectively target segments of the Latino audience | Health Education Research | YES. Although social capital is not mentioned in this paper, two forms of social capital are alluded to in what they measured: family and friends (bonding social capital) and health professionals (bridging social capital). Findings suggest that those better connected to an <i>integrated storytelling network</i> have better access regardless of having insurance or regular source of care |

Table 4 Main variables identified as relevant to Hispanics' access to health care

| Main variables identified | Frequency of quantitative studies that measured | Percentage of quantitative studies that measured (%) | Frequency of quantitative studies that find significance/importance | Percentage of quantitative studies that find significance/importance (%) | Frequency of quantitative studies that find relevant | Percentage of non-quantitative articles that find relevant (%) | Frequency of studies that find not relevant (quantitative and non-quantitative) | Percentage of studies that find not relevant (quantitative or non-quantitative) (%) |
|---|---|--|---|--|--|--|---|---|
| <i>Ethnicity</i> Hispanics have highest rates of uninsured (mainly used to measure potential access to health care) and/or lowest realized access to health care when compared to non-Hispanic whites and blacks ^a | 35 | 42 | 33 | 40 | 8 | 10 | 2 | 2 |
| <i>Mexican ancestry or nativity</i> makes up the largest group of Hispanics and also the one with the lowest access to health care when compared to other Hispanic subgroups ^b | 14 | 17 | 13 | 16 | 3 | 4 | 1 | 1 |
| <i>Insurance</i> treated as primary requirement to access medical services (i.e. main factor representing potential access) ^c | 41 | 49 | 40 | 48 | 12 | 14 | 1 | 1 |
| <i>Insurance</i> treated as a dependent variable that measures health-care access ^d | 24 | 29 | N/A | N/A | N/A | N/A | N/A | N/A |

Table 4 (continued)

| Main variables identified | Frequency of quantitative studies that measured | Percentage of quantitative studies that measured (%) | Frequency of quantitative studies that find significance/importance | Percentage of quantitative studies that find significance/importance (%) | Frequency of quantitative articles that find relevant | Percentage of non-quantitative articles that find relevant (%) | Frequency of studies that find not relevant (quantitative and non-quantitative) | Percentage of studies that find not relevant (quantitative or non-quantitative) (%) |
|---|---|--|---|--|---|--|---|---|
| Citizenship/immigration status included among major barriers to access medical services | 23 | 28 | 21 | 25 | 7 | 8 | 2 | 2 |

^aIn some studies Asian/Pacific Islander also included, but not all. When included, most times Hispanics still worst off among all four major racial/ethnic groups

^bSubgroups are primarily divided into: Mexicans, Pto. Ricans, Cubans, Central/SouthAmerican, and other

^cFor quantitative studies this row includes the ones that include insurance as an independent variable or measure it comparing across other variables. All of the studies counted in this row (100%) used data collected before the ACA mandate that required insurance

^dIn 10 studies insurance was tested as both IV and DV

factor in access. Displayed in Table 4, it can be observed that Hispanics have recurrently been identified as the largest group, mainly compared to non-Hispanic whites and blacks³ (and sometimes including Asian/Pacific Islander), that have the lowest access to health care (primarily, but not solely, measured by having insurance coverage) in the US, both at the national and local levels; 35 (42%) studies measure Hispanic ethnicity while 8 (10%) others non-quantitatively analyze it as relevant. Among those studies, only 2% find that Hispanic ethnicity is not an issue in potential (mainly measured by insurance coverage) and realized access.

2. The way acculturation is covered as a factor impacting access is confusing

Of the 83 articles examined, 16 (19%) specifically aimed at understanding the impact of acculturation (Table 2). However, not all of these articles use the term acculturation and the way acculturation is measured varies widely. All of the 16 studies, with the exception of three, find that acculturation does impact access. Generally, the impact of acculturation is measured on top of structural barriers imposed mainly through immigration and healthcare legislation, in most cases measured through insurance coverage. The general conclusion is that, on top of the structural barriers, Hispanics face cultural adjustment barriers when it comes to knowing how to access and navigate the healthcare system. Navigating the system includes basic issues that most Americans are already used to, although may not be satisfied with, such as understanding that you will be asked for your insurance when trying to set up an appointment with a specialist.

In addition, there are 18 (22% of 83) studies that allude to acculturation, but six of those only minimally discuss it as a possible link to access. Four of the articles measure disparities in access by subgroups within the Hispanic population, therefore addressing the heterogeneity present within the Hispanic category. The heterogeneity is not just due to cultural differences, but also from effects stemming from immigration legislation as well as socioeconomic differences.⁴

The majority of articles do not effectively define acculturation. Some discuss acculturation briefly in the literature review, but not much explanation is offered on how the decision to operationalize was made when measuring it as a

³ In the introduction we presented the following numbers to illustrate the differences. Hispanics consistently show the highest rates of uninsured (29%) when compared to non-Hispanic-white (11%), blacks (19%), or Asian (15%) [8], [9].

⁴ Examples may help in understanding the impact of such. Puerto Ricans for instance, are American citizens, so they qualify for public health insurance. Mexican immigrants are usually a target of discrimination through immigration and healthcare legislation. Hence, Mexican immigrants, if undocumented do not have access to public health insurance as Puerto Ricans do [68]. During the Cold War,

Table 5 Publications classified by disciplinary background of publication

| Journal classification based on field/disciplinary background | Frequency of publications | Percentage of publications (%) | Frequency of peer reviewed | Percentage of peer reviewed | Frequency published by Think Tanks | Percentage published by Think Tanks |
|---|---------------------------|--------------------------------|----------------------------|-----------------------------|------------------------------------|-------------------------------------|
| Business, economics, financial, or organizational (B) | 10 | 12 | 8 | 10 | 1 | 1 |
| Medical issues but that also publish some general PH topics (M) | 9 | 11 | 8 | 10 | 2 | 2 |
| General or more applied (i.e. to a specific population) topics in health and health care (PH) | 51 | 61 | 44 | 53 | 7 | 8 |
| General public policy not strictly focused on PH (PP) | 5 | 6 | 0 | 0 | 5 | 6 |
| Other social sciences not focusing on PH (SS) | 7 | 8 | 7 | 8 | 0 | 0 |
| Mixed PH and SS | 1 | 1 | 1 | 1 | 0 | 0 |
| Total | 83 | 100 | 68 | 82 | 15 | 18 |

variable. Most simply assume there is a universally accepted definition, which is not the case. Regardless of the inconsistencies, the literature is clear on identifying acculturation as a necessary factor to access the complex American health-care system. In other words, acculturation is an informal requirement for Hispanics who grow up in homes, either as immigrants or children of recent immigrants, with different worldviews.

3. Social capital is not covered in depth as a factor impacting access

Seven (8% of 83) publications specifically measure social capital, although only one of them uses the term (Table 3). Additionally, there are 7 articles that allude to social capital by slightly discussing it, among them only one refers to this term. Thus, only two of the 83 publications included in the analysis explicitly invoked the concept of social capital. For those that actually measure the impact of social capital, the ways it is being operationalized also varies. Overall, there is inconsistency in how researchers label social capital and almost no study in the sample uses the term specifically.

In five articles, based on the descriptions provided, we were able to further classify the types of social capital they were using. Both bonding and bridging social capital

appear in the literature as having been measured or at least discussed as an influential factor for access to health care. It is clear from these articles that bridging social capital increases access. On the other hand, bonding social capital show mixed results, in some cases serving as an enabler and in others as a constraint. In general, bonding capital increases health care access when those networks are from Latinx who have been residing for longer periods in the US, but limits access when coming from those who live in primarily Spanish speaking communities that are not well integrated into the rest of society. Again, none of these studies explicitly use these terms.

Concluding Remarks

Our review shows that when we include data collection periods and dates of publication, since the 1970s there are considerable number of studies that focus on Hispanics' access to health care. The majority of these studies have primarily explored and/or measured factors that are tied to economic capital. Few studies have included acculturation and even fewer the role of social capital. Among those that do include acculturation and social capital, there are significant issues with respect to how these terms are defined and operationalized. We believe these two socio-cultural factors are important when we consider the complexity of the American healthcare system. Acculturation and social capital could serve to overcome some of the structural barriers in place. Hispanics, who represent the largest group being excluded from access in the US [8], are, in a way, newcomers to the system, which makes them face additional barriers that are not strictly economic in nature.

Footnote 4 (continued)

Cubans who migrated to the US were given a refugee status and several preferential treatments, including gaining quick citizenship status. In addition, most of the Cubans who migrated to the US were of higher socioeconomic status with higher educational levels. As a result, Cubans gained access to things that Mexican immigrants of low socioeconomic status and lower educational levels do not have, such as access to medical insurance [69].

Our results indicate that studies that focus on Hispanics' access to health care should account better for acculturation and social capital. Because there is no consensus in how to define and operationalize acculturation, researchers should specify its definition and explain how and why they chose certain ways to measure this variable. In practice, strategies addressing acculturation need to consider first, the high complexity of the American healthcare system, and consider any heterogeneity that might be present with respect to country of origin. Hispanics of different country of origin have different cultural backgrounds; so, worldviews on healthcare access vary across subgroups. Enabling Hispanics to become more acculturated to the healthcare system will not solve all of the access issues stemming from structural barriers, but it could certainly help.

With respect to social capital, it is clear that researchers have been trying to include the importance of social networks as an enabler to access. However, the literature identified has not systematically incorporated the term social capital and as a result, there is no consensus in how it is being applied as a factor impacting access. On the other hand, the literature on social capital in the social sciences does show a consensus on its definition and suggest that context matters when it comes to the sources of social capital. Hence, incorporating this concept more explicitly and measuring different types of social capital in future research may prove to be an important step in improving our understanding on Latinx's healthcare access. In addition, this may prove relevant for other immigrant groups that are newcomers.

When acknowledging the importance of acculturation and social capital, it is pertinent to note that they should not be seen as substitutes, but rather complements, to other barriers. It is clear from the literature that structural barriers are

strong and they should not be ignored at the cost of acknowledging the effects of acculturation and social capital.

In sum, we pose that different types of social capital, depending on the context, can help Latinx better navigate a complex healthcare system. In addition, social capital can be one contributor, although not the only one, in helping Latinx acculturate to the American healthcare structure. Educational programs can also help with acculturation. Policies that aim at improving access could be channeled through different social networks where social capital is already in place or where there is potential to build such capital (i.e. healthcare navigators, such as the “promotoras de salud” are an example of bridging social capital that can be enhanced through policy). The literature emphasizes challenges with maintaining continuity when similar programs have been offered in the past, which should be considered when moving forward. Furthermore, when targeting Hispanics to increase their levels of acculturation and social capital, the fact that a large portion of them have low educational levels and some even lack English language skills must be considered concurrently.

Compliance with Ethical Standards

Conflict of interest The authors declare they have no conflict of interest.

Appendix

See Table 6.

Table 6 List of articles included in the meta-study

| # | Year Published | Authors | Title | Journal/Published by |
|----|----------------|---|---|---|
| 1 | 2002 | Alegría, M., Canino, G., Ríos, R., Vera, M., Calderón, J., Rusch, D., & Ortega, A. N. | Mental HC for Latinos: Inequalities in sue of specialty mental health services among Latinos, African Ams, and Non-Latino whites. | Psychiatric Services |
| 2 | 1986 | Andersen, R. M., Giachello, A. L., & Aday, L. A. | Access of Hispanics to health care and cuts in services: A state of the art overview | Public Health Reports |
| 3 | 1981 | Andersen, R., Lewis, S. Z., Giachello, A. L., Aday, L. A., & Chiu, G. | Access to medical care among the Hispanic population of the southwestern US. | Journal of Health and Social Behavior |
| 4 | 2015 | Balcazar, A. J., Grineski, S. E., & Collins, T. W. | The durability of immigration-related barriers to hc access for Hispanics across generations | Hispanic Journal of Behavioral Sciences |
| 5 | 2015 | Bauer, Scott R., Monuteaux, Michael C., & Fleegler, Eric W. | Geographic disparities in access to agencies providing income-related social services | Journal of Urban Health |
| 6 | 2004 | Blewett, Lynn A., Casey, Michelle, & Call, Kathleen Call | Improving access to primary care for a growing Latino population: The role of safety net providers in the rural Midwest | The Journal of Rural Health |
| 7 | 2003 | Blewett, Lynn A., Smaida, Sally A., Fuentes, Claudia, & Zuehlke, Ellie U. | Health care needs of the growing Latino population in rural America: Focus group findings in one midwestern state | The Journal of Rural Health |
| 8 | 2009 | Brittigan, Denise H., Murnan, Judy, & Rojas-Guyler, Liliana | A qualitative study examining Latino functional health literacy levels and sources of health information | Journal of Community Health |
| 9 | 2000 | Brown, E. R., Wynn, R., & Teleki, S. | Disparities in health insurance and access to care for residents across US cities | UCLA Center for Health Policy Research |
| 10 | 2009 | Byrd, Theresa L. & Law, Jon G. | Cross-border utilization of health care services by United States residents living near the Mexican border | Pan American Journal of Public Health |
| 11 | 2004 | Callahan, S. T., & Cooper, W. O. | Gender and uninsurance among young adults in the US | Pediatrics |
| 12 | 2005 | Callahan, S. T., & Cooper, W. O. | Uninsurance and hc access among young adults in the US | Pediatrics |
| 13 | 2006 | Callahan, S. T., Hickson, G.B., & Cooper, W. O. | Health care access of Hispanic young adults in the US | Journal of Adolescent Health |
| 14 | 2000 | Carrasquillo, O., Carrasquillo, A. I., & Shea, S. | Health insurance coverage of immigrants living in the US: Differences by citizenship status and country of origin | American Journal of Public Health |
| 15 | 2014 | Castañeda, Heide & Melo, Milena A. | Health care access for Latino mixed-status families: Barriers, strategies and implications for reform | American Behavioral Scientist |
| 16 | 2012 | Chavez, Leo R. | Undocumented immigrants and their use of medical services in Orange County, California | Social Science and Medicine |
| 17 | 2008 | Cristancho, Sergio, Garces, Marcela, Peters, Karen & Mueller, Benjamin | Listening to rural Hispanic immigrants in the Midwest: A community-based participatory assessment of major barriers to health care access and use | Qualitative Health Research |

Table 6 (continued)

| # | Year Published | Authors | Title | Journal/Published by |
|----|----------------|---|---|--|
| 18 | 2013 | Dembe, Allard E., Biehl, Jeffrey M., Smith, Alicia D. & Garcia de Gutierrez, Teresa | Employers' role in helping Latino workers obtain access to health care services: Results of a community-based pilot demonstration project | Journal of Immigrant and Minority Health |
| 19 | 2007 | Derose, K. P., Escarce, J. J., & Lurie, N. | Immigrants and health care: Sources of vulnerability | Health Affairs |
| 20 | 2004 | Documet, P. I., & Sharma, R. K. | Latinos' health care access: Financial and cultural barriers | Journal of Immigrant Health (Currently Journal of Immigrant and Minority Health) |
| 21 | 2006 | Doty, M. M., & Holmgren, A. L. | Health care disconnect: Gaps in coverage and care for minority adults | The Commonwealth Foundation |
| 22 | 2013 | Durden, Elizabeth T. & Dean, Lucy G. | Health insurance coverage of Hispanic adults: An assessment of subgroup difference and the impact of immigration | The Social Science Journal |
| 23 | 2006 | Durden, T. E., & Hummer, R. A. | Access to healthcare among working-aged Hispanic adults in the United States | Social Science Quarterly |
| 24 | 2006 | Echeverria, Sandra E., & Carrasquillo, Olveen | The roles of citizenship status, acculturation, and health insurance in breast and cervical cancer screening among immigrant women | Medical Care |
| 25 | 2006 | Escobedo, L. G., & Cardenas, V. M. | Utilization and purchase of medical care services in Mexico by residents in the United States of America, 1998–1999 | Revista Panamericana de Salud Publica |
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| 34 | 2000 | Guendelman, Sylvia & Wagner, Todd H. | Health services utilization among Latinos and white non-Latinos: Results from a national survey | Journal of Health Care for the Poor and Underserved |

Table 6 (continued)

| # | Year Published | Authors | Title | Journal/Published by |
|----|----------------|--|--|---|
| 35 | 2014 | Gutierrez, Natalia, Kindratt, Tiffany B., Pagels, Patti, Foster, Barbara & Gimpel, Nora E. | Health literacy, health information seeking behaviors and Internet use among patients attending a private and public clinic in the same geographic area | Journal of Community Health |
| 36 | 2003 | Hadley, J. | Sicker and poorer—The consequences of being uninsured: A review of the research on the relationship between health insurance, medical care use, health, work, and income | Medical Care Research and Review (formerly Medical Care Review) |
| 37 | 1997 | Halfon, N., Wood, D. L., Valdez, R. B., Pereyra, M., & Duan, N. | Medicaid enrollment and health services access by Latino children in inner-city Los Angeles | The Journal of the American Medical Association |
| 38 | 2003 | Hargraves, J. Lee & Hadley, Jack | The contribution of insurance coverage and community resources to reducing racial/ethnic disparities in access to care | Health Services Research |
| 39 | 2009 | Heyman, J. M., Núñez, G. G., & Talavera, V. | Healthcare access and barriers for unauthorized immigrants in El Paso County, Texas | Family and Community Health |
| 40 | 1991 | Hubbell, F. A., Waitzkin, H., Mishra, S. I., Dombbrink, J., & Chavez, L. R. | Access to medical care for documented and undocumented Latinos in a southern California county | Western Journal of Medicine |
| 41 | 2015 | Jadav, S., Rajan, S. S., Abughosh, S., & Sansgiry, S. S. | The role of socioeconomic status and health care access in breast cancer screening compliance among Hispanics | Journal of Public Health Management and Practice |
| 42 | 2002 | Jones, Mary Elaine, Cason, Carolyn L. & Bond, Mary Lou | Access to preventive health care: Is method of payment a barrier for immigrant Hispanic women? | Women's Health Issues |
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| 44 | 2012 | Katz, Vikki S., Ang, Alfonso, & Suro, Roberto | An ecological perspective on U.S. Latinos' health communication behaviors, access, and outcomes | Hispanic Journal of Behavioral Sciences |
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| 46 | 2005 | Lara, Marielena, Gamba, Cristina, Kahramanian, M. Iya, Morales, Leo S. & Hayes Bautista, David E. | Acculturation and Latino health in the United States: A review of the literature and its sociopolitical context | Annual Review of Public Health |
| 47 | 2011 | Law, J., & VanDerslice, J. | Proximal and distal determinants of access to health care among Hispanics in El Paso County, Texas | Journal of Immigrant and Minority Health (formerly Journal of Immigrant Health) |
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| 49 | 2001 | Macias, E.P. & Morales L.S. | Crossing the border for health care | Journal of Health Care for the Poor and Underserved |
| 50 | 2001 | Manos, M. Michele, Leyden, Wendy A., Resendez, Cynthia I., Klein, Elizabeth G., Wilson, Tom L. & Bauer, Heidi M. | A community-based collaboration to assess and improve medical insurance status and access to health care of Latino children | Public Health Reports |
| 51 | 1991 | Markowitz, M. A., Gold, M., & Rice, T. | Determinants of health insurance status among young adults | Medical Care |
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Table 6 (continued)

| # | Year Published | Authors | Title | Journal/Published by |
|----|----------------|--|---|---|
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| 54 | 2002 | Morales, Leo S., Kington, Raynard S., Valdez, Robert O. & Escarce, Jose J. | Socioeconomic, cultural, and behavioral factors affecting Hispanic health outcomes | Journal of Health Care for the Poor and Underserved |
| 55 | 2014 | Padilla, Yolanda C., Scott, Jennifer L. & Lopez, Olivia | Economic insecurity and access to the social safety net among Latino farmworker families | Social Work |
| 56 | 2008 | Pearson, W.S., Ahluwalia, I.B., Ford, E.S. & Mokdad, A.H. | Language preference as a predictor of access to and use of healthcare services among Hispanics in the US | Ethnicity and Disease |
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| 58 | 2010 | Perez-Escamilla, Rafael | Health care access among Latinos: Implications for social and health care reforms | Journal of Hispanic Higher Education |
| 59 | 2000 | Quinn, K., Schoen, C., & Buatti, L. | On their own: Young adults living without health insurance. | Commonwealth Foundation. Task Force on the Future of Health Insurance |
| 60 | 2013 | Ruiz, Erika, Aguirre, Regina T.P. & Mitschke, Diane B. | What leads non-US-born Latinos to access mental health care | Social Work in Health Care |
| 61 | 2000 | Schoen, C., & DesRoches, C. | Uninsured and unstably insured: the importance of continuous insurance coverage | Health Services Research |
| 62 | 2015 | Schoen, C., Radley, D., & Collins, S. R. | State trends in the cost of employer health insurance coverage, 2003-2013 | Commonwealth Foundation. Task Force on the Future of Health Insurance |
| 63 | 1995 | Schur, C. L., Albers, L. A., & Berk, M. L. | Health care use by Hispanic adults: Financial vs. non-financial determinants | Health Care Financing Review |
| 64 | 2001 | Schur, C. L., Feldman, J. J., & Fund, C. | Running in place: How job characteristics, immigrant status, and family structure keep Hispanics uninsured | The Commonwealth Foundation. Task Force on the Future of Health Insurance |
| 65 | 1987 | Schur, Claudia L, Bernstein, Amy B. & Berk, Marc L. | The importance of distinguishing Hispanic subpopulations in the use of medical care | Medical Care |
| 66 | 2007 | Sharma, Ravi K., McGinnis, Kathleen A. & Document, Patricia I. | Disparities in health status and health-service utilization among Hispanic ethnic subgroups | Social Work in Public Health (formerly Journal of Health & Social Policy) |
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| 68 | 1990 | Solis, Julia, M., Marks, Gary, Garcia, Melinda, & Shelton, David | Acculturation, access to care, and use of preventive services by Hispanics: Findings from HHANES 1982-84 | American Journal of Public Health |
| 69 | 2015 | Stone, Lisa Cacari, Boursaw, Blake, Bettez, Sonia P., Marley, Tennille Larzelere & Waitzkin, Howard. | Place as a predictor of health insurance coverage: A multivariate analysis of counties in the United States | Health and Place |
| 70 | 2013 | Talavera-Garza, L., Ghaddar, S., Valerio, M., & Garcia, C. | Health care access and utilization among Hispanic manufacturing workers along the Texas-Mexico border | Journal of Health Care for the Poor and Underserved |

Table 6 (continued)

| # | Year Published | Authors | Title | Journal/Published by |
|----|----------------|---|--|---|
| 71 | 2013 | The Henry J. Kaiser Family Foundation | Medicaid and the uninsured: Key facts on health coverage for low-income immigrants today under the Affordable Care Act | The Henry J. Kaiser Family Foundation |
| 72 | 2013 | Torres, Essie, Erwin, Deborah O., Treviño, Michelle & Jandorf, Lina | Understanding factors influencing Latina women's screening behavior: A qualitative approach | Health Education Research |
| 73 | 2008 | Torres, Myriam, Parra-Medina, Deborah, Bellinger, Jessica, Johnson, Andrew O. & Probst, Janice C. | Rural hospitals and Spanish-speaking patients with limited English proficiency | Journal of Healthcare Management |
| 74 | 1991 | Treviño, F. M., Moyer, M. E., Valdez, R. B., & Stroup-Benham, C. A. | Health insurance coverage and utilization of health services by Mexican Americans, mainland Puerto Ricans, and Cuban Americans | The Journal of the American Medical Association |
| 75 | 1993 | Valdez, Burciaga, Giachello, Aida, Rodriguez-Trias, Helen, Gomez, Paula & de la Rocha, Castulo | Improving access to health care in Latino communities | Public Health Reports |
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| 77 | 2009 | Vargas Bustamante, Arturo, Fang, Hai, Rizzo, John A. & Ortega, Alexander N. | Understanding observed and unobserved health care access and utilization disparities among U.S. Latino adults | Medical Care Research and Review (formerly Medical Care Review) |
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| 79 | 2002 | Weigers Vitullo, Margaret & Taylor, Amy K. | Latino adults' health insurance coverage: An examination of Mexican and Puerto Rican subgroup differences | Journal of Health Care for the Poor and Underserved |
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