Understanding health literacy in the Latino population

Whitney Key, MPH, MSW
Loyola University Chicago

Correspondence concerning this article should be addressed to Whitney Key, 1 E Pearson, Maguire Hall, Loyola University Chicago, Chicago IL 60611; Email: wkey@luc.edu

Abstract

The National Institutes of Health (NIH) defines health literacy as the "degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions." Latinos are disproportionally susceptible to poorer health literacy. Adult Latinos are more likely to suffer from chronic diseases at a higher rate; adult Latinos are 15% more likely to be obese, 45% more likely to have cervical cancer and 65% more likely to have diabetes. Understanding the mechanisms that lead to health literacy within the Latino community could lead to better health outcomes, as well as income, housing, and employment. These include health literacy screening, improving communication with low-literacy patients, costs and outcomes of poor health literacy, and causal pathways of how poor health literacy influences health. This study utilized focus groups to learn more about the varying degrees of health literacy of individuals who participate in a cooking class at a social service agency in Chicago; specifically, how individuals understand how behaviors impact their overall health. The study participants were predominantly Latino Spanish only speakers from low income communities. A total of eight participants who have attended at least four cooking classes in the last six months were included in the focus group discussion. The focus group was conducted in Spanish and observations were recorded by members of the research team. The focus group was open coded for thematic purpose and an interpretive theory was used. Findings highlight the importance of social connections gained in these cooking classes and how they impact the participants' health literacy. By the agency hosting these classes, individuals can create social networks that reinforce healthy habits within the home. It is important for social workers to understand the dynamics that health literacy classes or health literacy education has on their clients' health outcomes.

Keywords: health literacy, Latinos, qualitative study

Introduction

The National Institutes of Health (NIH) defines health literacy as the "degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions." (Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011). A statement from the World Health Organization (WHO) Commission on the Social Determinants of Health identified literacy as having a central role in determining inequities in health in both rich and poor countries (WHO, 2007). It is important to understand the role of health literacy in terms of health outcomes, as it effects individuals of every age, race/ethnicity, and education and income level. A study by Paasche-Orlow & Wolfe (2007), identified three causal pathways of health literacy namely; access and utilization of health care, patient and provider relationship and self-care. Self-care is being addressed in this study as it relates health and wellness choices that ultimately improve one's health.

It is known that higher health literacy leads to better health outcomes (Bennet, Chen, Soroui, & White, 2009; Howard, Gazmararian, & Parker, 2005). Although higher health literacy is common among developed countries, it does not always translate to the entire population. Chronic disease rates are disproportionately escalating among lower-income individuals because of the lack of education and resources in the healthcare field (Nutbeam, 2008). In older adults, health literacy is significantly less because of the marginalization of older adults in the healthcare field and the chronic disease rates are higher than the general population (Bennet, Chen, Soroui, & White, 2009). Therefore, there is an imperative need to increase health literacy among a higher need area.

Latinos are disproportionally susceptible to poorer health literacy. 41% of Hispanics (21 million persons) have low health literacy levels (Jacobs, Ownby, Acevedo, & Waldrop-Valverde, 2017). According to Families USA, adult Latinos are more likely to suffer from chronic diseases at a higher rate; adult Latinos are 15% more likely to be obese, 45% more likely to have cervical cancer and 65% more likely to have diabetes (Families USA, 2017). Chronic diseases, such as heart disease, cancer, diabetes and stroke are the leading causes of death for Latinos in America (CDC, 2013). In addition, Latinos aged 18-64 had a larger percentage of individuals who were uninsured in 2010 (2013). These poor health outcomes could be related to gaps in access to care, which is a form of health literacy, but could also be from the lack of self-care and relationships with providers (Paasche-Orlow & Wolfe, 2007). Seeing how the Latino population is rapidly increasing, yet the health of this population is not improving, this is a massive public health issue that needs to be addressed immediately. Increasing the health literacy of the population could help offset these adverse outcomes.

Calvo (2015) found that inadequate health literacy influenced Latino immigrants' quality of care beyond education and income, English proficiency, health insurance coverage, and having a regular place of care. Understanding the mechanisms that lead to health literacy within the Latino community could lead to better health outcomes, as well as income, housing, and employment. These include health literacy screening, improving communication with low-literacy patients, costs and outcomes of poor health literacy, and causal pathways of how poor health literacy influences health outcomes (Paasche-Orlow & Wolf, 2007). The information that this study can provide will influence the increase of health literacy and

how it is implemented into the Latino community. The objective of this study is to understand the mechanisms of health literacy in the Latino population.

Literature Review

One predictor to health literacy is understanding the social determinants of health and how literacy mediates or moderates those relationships. Social determinants of health are "the structural determinants and conditions in which people are born, grow, live, work and age" (Marmot et al., 2008, p. 1663). They include factors like socioeconomic status, education, the physical environment, employment, and social support networks, as well as access to health care. Racial minorities, low-income and other vulnerable communities experience health disparities more than the general population. Kaiser Family Foundation (2017) defines health disparities as "differences in health outcomes that are closely linked with social, economic, and environmental disadvantage". Researchers have discovered that social factors such as education, race, and socio-economic status, account for over a third of total deaths a year (Hieman & Artiga, 2015). These social factors are important to understand when considering the built environment impacts health, especially mental health care, and how this impacts the treatment of patients.

The Hispanic population in America is increasing at a rapid rate. In Chicago, the same is true; from 1980 to 2010, the Hispanic population doubled, growing from 14.1% to 28.9% of the total population (City of Chicago Department of Public Health, 2017). The Latino population experiences many physical and environmental stressors that make it imperative to have adequate health literacy and access to healthcare. The targeted neighborhoods of the study face high incidences of domestic violence, communicable disease, substance abuse, depression, anxiety disorders, gang violence, and injuries. Rates of mental health-related hospitalizations are significantly higher than the general population (CDPH, 2017). Yet, many remain uninsured or underinsured. An Illinois Health Matters study (2015) reported that 25% (818,488 people) of the adults in Cook County are uninsured and found that Latino adults comprise the largest percentage of uninsured persons at 39% (319,544 people).

A study found English proficiency as the strongest predictor of health literacy while further indicating the importance of primary and secondary language in the assessment of heath literacy level is needed (Jacobson, Hund, & Soto Mas, 2016). Therefore, basic literacy is a factor of health literacy, and with working with a population where English is a second language, this variable needs to be addressed. In DeWalt and colleagues' 2004 systematic review, low or inadequate literacy (compared to adequate literacy) was strongly associated with poorer knowledge or comprehension of health care services and health outcomes. Limited literacy was also associated with higher probability of hospitalization, higher prevalence and severity for some chronic diseases, poorer global measures of health, and lower utilization of screening and preventive services (2004). Knowing that the relationship between literacy and health outcomes is significant, it is necessary to screen for basic literacy levels within the medical system.

A survey by the International Latino Coalition found that Latinos often feel that the health care system in the United States is difficult to navigate, that they feel discarded from the system, and that they feel disconnected from the benefits of coverage and care (2015). This could be a direct result of lack of English literacy. The Centers for Disease Control and Prevention identified roughly 260,000 preventable deaths annually that occurred due to lack of regular doctor visits and lack of health insurance (CDC, 2013). Education of benefits, eligibility, and other resources related to healthcare- all of which contribute to health literacy- are all still significant barriers to minority health and have great consequences to

vulnerable populations without access to these resources. This speaks to the substantial need for health education and increased access to healthcare for vulnerable individuals, which will have significant direct and indirect impact on the health outcomes.

Subsequently, an unhealthy community is a large financial burden to the community at large. Chronic diseases are the largest cause of death in the world, which share key risk factors: tobacco use, unhealthful diets, lack of physical activity, and alcohol use (Yach, Hawkes, Gould, & Hofman, 2004). The World Health Report found that physical inactivity is responsible for 1% of Disability Adjusted Life Years (DALYs) lost globally and for 3% of those lost in established market economies (WHO, 2003). Specifically, most common chronic diseases are costing the economy more than $1 trillion annually—and that figure threatens to reach $6 trillion by the middle of the century (Allender, Foster, Scarborough, & Rayner, 2007; DeVol et al., 2007; Yach, Stuckler, & Brownwell, 2006). Although these statistics relate to the global burden of disease, this is especially costly for the United States as Latinos make up 16.8% (26.8 million) of the workforce and have a direct impact on the economy (Bureau of Labor Statistics, 2019).

There is a need to increase health literacy to better health outcomes among the Latino population in Chicago. Agencies around the area have implemented health and wellness programs to address this need however, few have evaluated whether these programs meet the health needs or address the health needs of their clients. This qualitative study utilizes a focus group methodology to examine how a cooking class in a health and wellness program increases health literacy in Latino community, specifically by understanding how nutritional behavior changes effect perceived physical differences.

Methods

A focus group is the type of qualitative research methodology used in this study and was chosen because of its usefulness in accessing group norms and meanings (Bloor et al, 2001). Community-based participatory research is one that is bottom-up in terms of redefining health as an empowerment process. A co-constructionist design, whereas each participant has their own unique perception and truth, while interpretive and comparative approaches were used. An interpretive approach is understanding that access to reality (given or socially constructed) is only through social constructions such as language, consciousness, shared meanings, and instruments; and a comparative approach is when one compares one segment of the data with another to determine similarities and differences (Merriam & Tisdel, 2016; Bailey, 2018). These intentional choices of the research team allowed the voices of the participants to better understand the needs of the participants in the health and wellness program. This study was approved by the Loyola University Chicago Institutional Review Board.

Sample

Participants enrolled in a health and wellness program at a non-profit agency in Chicago were invited to participate in a focus group about their experiences in the program. Invitations were extended by the health and wellness leader by explaining the study at the beginning of each session. The aims of the health and wellness program were to 1) enroll participants in applicable health insurance programs; 2) teach participants the importance of exercise and dieting and; 3) measure the biometrics of participants.

One of the more popular activities offered is the cooking classes offered at three of the four locations in the city. These cooking classes not only teach the participants healthy cooking strategies on a limited budget, but also ways to integrate their cultural dishes by supplementing healthier ingredients. These cooking classes have been a popular component of the health and wellness program and have a high retention rate among participants (70%). Participants who have attended at least four of the cooking classes were asked to participate in a focus group regarding how health literacy has been addressed in the cooking class. A convenience sampling methodology was utilized and participants self-selected to participating in the focus group. Out of the 17 eligible participants, eight agreed to contribute. Spanish versions of the informed consent were distributed in paper format and were explained to participants; participants signed and kept a copy. This study was conducted under a protocol approved by the Institutional Review Board of Loyola University Chicago.

The demographics of the agency that was utilized for the study are predominantly Latino, Spanish-only speakers, and low-income. In total, eight participants, seven female and one male ranging from ages 19-67, joined the focus group. The overall demographics of the health and wellness program are skewed to having more females than males, therefore disproportionate sample represents the larger sample of the participants in the health and wellness program. Food and refreshments were provided in accordance to the health and wellness goals and no other compensation was given.

Qualitative Approach

A thematic analysis approach was used to gain a greater understanding of patients' health literacy and perspectives on self-care specifically related to barriers to nutrition and subsequently any adherence strategies they adopt. Qualitative methodologies are particularly important for the development of conceptual frameworks that focus on the individual, developmental, and sociocultural contexts in which behavior occurs. A better understanding of these can serve as an essential guide to intervention development. This approach also helps us understand some of the cultural issues within a group sharing a similar, potentially life-altering experience.

The focus group was a semi-structured interview that included six open-ended questions around participants' experience in the health and wellness program, their thoughts about their own health, and motivation around health. Constructivist frameworks guided the creation of the semi-structured interview guide (the English version of the questionnaire is below in Figure 1).

Although the instrument was not pretested, the questions did come from observations from the researcher and agency, meaning that the instructor noticed that there were misconceptions about nutrition and health in the community and wanted to know if the health and wellness program helped dispel them and ultimately, improve overall health.

Figure 1

1) How is your overall experience in the health and wellness program at AGENCY?
2) How do you feel your health has changed since participating in this program?
3) What made you decide to participate in the health and wellness program?
4) Sometimes what motivates us at a starting point is different than what motivates us to continue with something. What motivated you initially in the program, and what has motivated you to keep going?
5) How do you feel your social networks have changed since you've participated in the health and wellness program?
6)We've talked about goals, motivation, barriers…how do these things come together for you?

The focus group was conducted in Spanish and was digitally recorded. Three members of the health and wellness team took copious notes, observing physical reactions, and key points. The focus group lasted one hour and after the participants left, the staff and research team de-briefed in English. The transcripts were translated from Spanish to English then back to Spanish for rigor and accuracy. The transcripts were triangulated with the notes taken by the research team and were open coded by hand by four research team members.

To ensure internal validity, the codes were discussed among the research team and themes were determined by the group. An inductive analysis was used because it allows for the patterns, themes, and categories of analysis to emerge. The descriptive analysis described the respondents' life situations and characteristics while the thematic analysis elaborated the structures of the basic constructs and new constructs that arose in the early analysis. Two readers reviewed transcripts to identify all relevant ideas. Their notations were compared and discussed. The process was repeated until there was agreement on the ideas and concepts. Some of the concepts were broken down into various subcomponents of the theme.

Results

A thematic analysis was used in interpreting the results from the focus group. From the hour-long focus group, five themes emerged from the cooking classes: learning to cook better, social support, feeling of acceptance, and mental and physical health outcomes.

Learning to Cook Better. The purpose of the healthy cooking classes was for participants to learn how to cook better, therefore it is no surprise that this was a key outcome of this study. Participants overall said that they practice the lessons learned in the cooking classes at home and have subsequently changed their eating habits because of this.

...know certain vegetables, but I would not take others because I did not know how to use them" *[Latina woman, recent immigrant to the United States, age 62].*

Another participant said in reference to how the cooking classes have taught her how to make better choices when grocery shopping.

I followed because I learned many recipes and I like how Andrea [cooking class instructor] teaches them. Well now I'm more excited because I know what it is and I like to go [Latina woman, mother of two children, age 19].

Most participants spoke about how attending the healthy cooking classes have helped them make better choices for them and their family members when grocery shopping.

Since many participants were low-income, and therefore receiving Supplemental Nutrition Assistance Program (SNAP) benefits, food ingredients included items that were affordable and could be procured through a food pantry. An example of this was using a recipe that included both fresh and canned vegetables. One woman who recently migrated to the United States from Chile mentioned that she did not know what canned vegetables were and could not afford to make healthy meals for her and her daughter

on her SNAP budget alone, but because of the cooking class, she was able to integrate canned vegetables from the food pantry into her diet and therefore was able to re-budget her food. These cooking lessons allowed her to incorporate affordable, healthy items into her meal plans by teaching her ways to supplement different types of food.

Social Support. Social support was also a main finding of the study. The social support gained from the cooking classes not only reinforced bonds among the participants, but it also gave the participants motivation to teach their friends and family the lessons gained at home. One participant said that she was sending the recipes to her family members back home in Mexico.
the recipes to encourage them [to eat healthier] [Latina woman, first generation, age 53].

Another mentioned that family discussions revolve around food and therefore, have strengthened family bonds.

After 4 weeks, a lot of the conversations in my home have changed. With my daughter-in-law, it used to be just hi and bye. When I showed my family the video of us cooking, they were asking me where I was at. I talked to them about it. …Therefore, the conversations have changed in my group. Now we talk more about food. We have bible classes and we talk about the importance of a diet" [Latino male, first generation, age 60].

The cohesive nature of the class has also made the learning environment supportive for the participants and has held them accountable for making healthier choices in the home. One participant mentioned that she was intimidated at first about coming to the classes but because of the supportive nature of the class, but other members have encouraged her to come and participate. She now has attended over four classes and has incorporated these recipes at home.

As I said, to continue learning and the reason I have continued is because I like how Andrea gives her classes. I believe that not only does the body have to change (food) but also involve meditation, exercise, etc. We all have many needs - not just looking after food. Everything she has said I have already heard it but it is important that more be heard. You have to be well in many areas. I followed because I learned many recipes and I like how Andrea teaches them. Well now I'm more excited because I know what it is and I like to go [Latina woman, age 40].

This nature of social support within the classroom has led to the next theme of feeling accepted within the classroom and the community at large.

Mental Health Outcomes. Through the supportive and educational nature of the classroom, participants mentioned the transformation they encountered throughout the course. Many mentioned the motivation to change eating and lifestyle habits. One individual mentioned her desire to increase her well-being.

I always want to be involved, especially in well-being. Where I work, I also did something similar - to learn healthy eating. If I come it's because I want to continue learning and I like all this natural and I have always liked it [Latina female, age 19].
Another spoke about the motivation she had throughout the process.

Sometimes the things that motivate us in the beginning are different from what motivates us to continue doing something. That motivated them in the beginning and because they have continued with that motivation to continue going to the classes [Latina female, age 53].

Many of the participants noted the feeling of acceptance within the classroom, which speaks to the previous finding of social support. One individual said:

I am very happy and thanked them for accepting me for a program that was not for me. I've already been accepted [Latina woman, age 40].

Another said that her daughter was no longer involved at the agency; however, she was still able to attend the classes and she was incredibly grateful for that.

Also, thank you very much to everyone. My daughter is no longer part of [agency] for two months but I could still come here [Latina woman, age 67].

The one male in the group mentioned his apprehension of attending the class because of his gender. He said that he not only learned from the class, but he felt accepted in attending and continued to learn from the class.

The only thing is that they are just women. I do not know if they feel uncomfortable with me there. But it has always caught my attention to learn. This is the response from the man who meant that he didn't know how he'd be received in an all-female group, but now feels accepted" [Latino male, age 60].

Physical Health Outcomes. The cooking classes helped participants modify their eating habits and make healthier choices. Some of these modifications led to outcomes regarding participants' physical outcomes such as weight loss, more energy, and better digestion.

I've already lost 21 pounds by leaving out oils and flours" [Latina female, age 67].

Since I started to take care of more and eat more natural I have felt more energetic, my skin feels different" [Latina female, age 19].

And my health, now that I feel I have lost weight. I feel lighter. You feel yourself in your body when you change clothes or something like that or by tying your shoes" [Latina female, 53].

Besides the weight loss and the increased energy, most of the participants noticed the connection of food and fluids and the digestive process. Some of the parents in the room complained how they or their children were having difficulty going to the bathroom. These cooking classes took a holistic approach to teaching individuals about food and therefore, addressed all aspects of the digestive process. After participating in the classes for a while, one said,

I give her [daughter] granola and I give her different things and she goes to the bathroom more often [Latina female, age 19].

I drink a lot of fluids, but I take it alone and it has helped me a lot with digestion [Latina female, age 67].

This outcome is important because the participants who were having difficulty with the digestive process mentioned that they were taking laxatives and other medication to help with this issue and since attending the classes, they have ceased the use of them.

Discussion

The cooking classes that took place increased the participants' health literacy by engaging them in the food preparation and cooking process by explaining the health benefits of certain foods. These classes not only engaged the participants in the learning process, but also empowered them to take the lessons learned back to their families and friends. The holistic nature of the classes not only taught the participants how to cook, but the benefits of healthy cooking and the impact of healthy cooking can have on them physically and mentally. This process addresses the self-care causal pathway in the Paasche-Orlow & Wolf (2007) model of health literacy. In addition, these classes spoke to the definition of health literacy in which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions (Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011).

One theme that stood out was social support. There has been strong evidence linking social support to positive health outcomes. Evidence supports that the more social support one has, the better health that individual has (Rikard, Thompson, McKinney, & Beauchamp, 2016; Gottlieb, 1985; Sarason, Levine, Basham, & Sarason, 1983). Many of these studies explore the correlation between the two. Some have focused on the process that social support has on general well-being and life satisfaction (Adam, King, & King, 1996; Cohen & Wills, 1985). Studies have focused on both the positive and negative effects of personal relationships on one's health through a stress model. Cohen and Wills hypothesized that one way is a direct model where the support relieves stress from the individual (1985). The other is a buffering effect, meaning when someone is under stress; the social support comes through and potentially protects the person. Similarly, another study found that personal relationships have a profound impact on work and life satisfaction and that the nature of the relationships- i.e., conflict vs support- have a greater impact on work performance (Adam, King, & King, 1996). In another study investigating older adults' involvement in social activities and health behaviors, the primary outcome was that there was a strong association with positive health behaviors and social support (Sarason, Sarason, Shearin, & Pierce, 1987). The ultimate result from these studies is that social support has a large effect on one's health.

Social support can increase health literacy by making individuals accountable for their actions and empowering them to make healthy decisions in the home. This was evident in the cooking classes by the participants creating an environment of acceptance and supporting one another to make healthy decisions in the home. This supportive environment empowered individuals to teach their family members what they learned in the classroom, which strengthened the familial and social bonds. This passage of healthy

information from the classroom to the home has increased the health literacy of the family because of the practice of new healthy choices their family members are using and the health outcomes they are reporting, such as weight loss and digestive improvements. As Jacobs et al (2017) discovered in their study investigating health literacy among Latinos with chronic disease, certain psychological and sociocultural variables might influence managing chronic illness including medication adherence, but the details provided by participant narratives provided a deeper, richer understanding of the underpinnings and possible interrelatedness of these factors.

This qualitative study is not without limitations. The participants who chose to participate were self-selecting, meaning that they chose to partake in the study, and therefore, it is not a true representation of the feelings of everyone participating in the health and wellness program and is prone to bias. In addition, the demographics were skewed in that there were seven females to one male, opening the group up to gender bias. The instrument was not pretested and therefore, could possibly not truly reflect the sentiments of the group.

Conclusion

Health literacy and social support are linked to positive health outcomes. This is very important for populations that face a host of chronic health outcomes. Social workers need to understand the connection of culture and ways of learning when it comes to health literacy. For the Latino population in particular, social learning is important for increased health outcomes. By incorporating a cohesive social environment, one could increase health literacy among a population.

References

Adam, G.A., King, L.A., & King, D.W. (1996). Relationships of job and family involvement, family social support and work-family conflict with job and life satisfaction. *Journal of Applied Psychology*, 81, 4, 411-420.

Allender, S., Foster, C., Scarborough, P., & Rayner, M. (2007). The burden of physical activity-related ill health in the UK. *Journal of epidemiology and community health*, *61*(4), 344-348.

Bailey, C. R., & Bailey, C. A. (2018). A guide to qualitative field research. Sage Publications.

Bennet, I.M., Chen, J., Soroui, J.S., & White, S. (2009). The contribution of health literacy to disparities in self-related health status and preventative health behaviors in older adults. *Annals of Family Medicine*, 7, 204-211.

Berkman, N.D., Sheridan, S.L., Donahue, K.E., Halpern, D.J., & Crotty, K. (2011). Health Literacy Interventions and Outcomes: An Updated Systematic Review. Evidence Report/Technology Assessment No. 199. (Prepared by RTI International–University of North Carolina Evidence-based Practice Center under contract No. 290-2007-10056-I. AHRQ Publication Number 11-E006. Rockville, MD. Agency for Healthcare Research and Quality.

Bloor, M., Frankland, J., Thomas, M., & Robinson, K. (2001). *Focus Group Research in Social Research*. London: Sage.

Bureau of Labor Statistics. (2019). 26.8 million Hispanics or Latinos in the U.S. labor force in 2016. Retrieved from: https://www.bls.gov/opub/ted/2017/26-point-8-million-hispanics-or-latinos-in-the-u-s-labor-force-in-2016.htm?view_full.

Calvo, R. (2015). Health literacy and quality of care among Latino immigrants in the United States. *Health & Social Work*, 41(1), e44-e51.

Centers for Disease Control. (2013). Latinos in America. Available from: http://www.cdc.gov/minorityhealth/populations/REMP/hispanic.html.

City of Chicago Department of Public Health. (2017). Facts and Statistics. Retrieved from: https://www.cityofchicago.org/city/en/about/facts.html

Cohen, S. & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 2, 310-357.

DeVol, R., Bedroussian, A., Charuworn, A., Chatterjee, A., Kim, I. K., Kim, S., & Klowden, K. (2007). An unhealthy America: The economic burden of chronic disease.

DeWalt, D. A., Berkman, N. D., Sheridan, S., Lohr, K. N., & Pignone, M. P. (2004). Literacy and health outcomes. Journal of General Internal Medicine, 19(12), 1228-1239.

Families USA. (2017). Health action. Available from: http://familiesusa.org/2014-health- action-conference-resources.

Gottlieb, B. H. (1985). Social support and community mental health. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 303-326). New York: Academic Press.

Heiman, H. J., & Artiga, S. (2016). Beyond health care: The role of social determinants in promoting health and health equity. *Health*, 20(10).

Howard, D.H., Gazmararian, J., & Parker, R.M. (2005). The impact of low health literacy on the medical costs of Medicare managed enrollees. *The American Journal of Medicine*, 188, 371-377.

Illinois Health Matters. (2015). Insurance status of Latinos. Available from: http://illinoishealthmatters.org/.

Jacobs, R. J., Ownby, R. L., Acevedo, A., & Waldrop-Valverde, D. (2017). A qualitative study examining health literacy and chronic illness self-management in Hispanic and non-Hispanic older adults. *Journal of multidisciplinary healthcare*, 10, 167.

Jacobson, H. E., Hund, L., & Mas, F. S. (2016). Predictors of English Health Literacy among US Hispanic Immigrants: The importance of language, bilingualism and sociolinguistic environment. *Literacy & numeracy studies: an international journal in the education and training of adults*, 24(1), 43.

Kaiser Family Foundation. (2017). The effects of Medicaid expansion under the ACA: Updated findings from a literature review. Retrieved from: http://kff.org/medicaid/issue-brief/the-effects-of-medicaid-expansion-under-the- aca-updated-findings-from-a-literature-review/

The Latino Coalition. (2015). Survey of healthcare in America. Available from: http://www.thelatinocoalition.com/.

Marmot, M., Friel, S., Bell, R., Houweling, T. A., Taylor, S., & Commission on Social Determinants of Health. (2008). Closing the gap in a generation: health equity through action on the social determinants of health. The Lancet, 372(9650), 1661-1669.

Merriam, S. B., & Tisdell, E. J. (2016). Qualitative research: A guide to design and implementation. John Wiley & Sons.

Nutbeam, D. (2008). The evolving concept of health literacy. *Social Science and Medicine*, 67, 2072-2078.

Paasche-Orlow, M.K. & Wolf, M.S. (2007). The causal pathways linking health literacy to health outcomes. *American Journal of Health Behavior*, 31, S19-S26.

Rikard, R. V., Thompson, M. S., McKinney, J., & Beauchamp, A. (2016). Examining health literacy disparities in the United States: a third look at the National Assessment of Adult Literacy (NAAL). *BMC Public Health*, 16(1), 975.

Sarason, I.G., Levine, H.M., Basham, R.B., & Sarason, B.R. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology*, 44,1, 127-139.

Sarason, I.G., Sarason, B.R., Shearin, E.N., & Pierce, G.R. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, 4, 497-510.

World Health Organization. (2003). *The world health report 2003: shaping the future*. World Health Organization.

Yach, D., Hawkes, C., Gould, C. L., & Hofman, K. J. (2004). The global burden of chronic diseases: Overcoming impediments to prevention and control. *Jama*, *291*(21), 2616-2622.

Yach, D., Stuckler, D., & Brownell, K. D. (2006). Epidemiologic and economic consequences of the global epidemics of obesity and diabetes. *Nature medicine*, *12*(1), 62-66.

Whitney Key, MPH, MSW is a doctoral candidate at Loyola University Chicago School of Social Work. Her academic focus is in health literacy and she bridges the public health perspective to the social work lens by understanding of the intersection of clinical, environmental, psychological, and social factors that impact health. Through her work, she ties in how housing discrimination has limited individuals' choices in their health decision making and therefore affecting them to be unhealthy. She received her master's in social work and her master's in public health from the Brown School at Washington University in St. Louis.