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This dissertation is dedicated to my parents, Junzo Terui and Yoshiko Terui, and my husband, Jiangang Huang, for their continuous love and support.

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It is my hope this dissertation will increase knowledge and be useful in developing effective health interventions, modifying communicative practices in patient-provider interaction, and in reducing health disparities.

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ABSTRACT

Despite a large number of studies verifying the correlations among language barriers in healthcare settings and health disparities, the precise ways language barriers contribute to health disparities is less clear. This dissertation is an examination of the precise pathways and processes among language barriers and health disparities, the challenges and meanings of language barriers in across sociopolitical and sociocultural environments (Japan and the US), and how these differences influence the quality of health care. Japan is often characterized, in Hofstede's (1980) terms, as a high-power distance, collectivistic culture, and a relatively homogeneous environment. The US, on the other hand, is described as a low-power distance (Hofstede, 1980), individualistic culture, and is well known as a country of immigrants. These two countries provide significantly different social environments, particularly useful for examining the functions and meanings of language barriers. Data presented in this study were collected through in-depth interviews with language-discordant immigrants and minorities living in Japan (*N*=30) and the US (*N*=30). Participants recruited in Japan are from 13 counties, and the participants recruited in the US are from 10 countries.

The current study employed the narrative approach (Fisher, 1987) along with constructivist grounded theory (Charmaz, 2006). Using the semi-structured interview guides, the author explored the ways these participants understand their experiences of facing language barriers in healthcare settings. Comparative analysis revealed the ways language barriers create challenges in accessing healthcare and related processes. In accessing healthcare, data show that language barriers create challenges in utilizing healthcare, especially in emergency situations and in managing identities and interpersonal relationships in host countries. In the process of healthcare, language barriers create challenges in asserting desirable identities, exchanging information, and building relationships with healthcare providers. The findings highlight the multidimensional nature of language barriers in healthcare settings. Based on these findings, the author presents a diagram of pathways and processes among language barriers and health disparities. Also, a broader definition of language barriers in healthcare settings is proposed.

CHAPTER ONE: INTRODUCTION

The number of immigrants and minorities has grown significantly in last three decades in many countries, with the United States at the top of the list (John, de Castro, Martin, Duran, & Takeuchi, 2012; Subedi & Rosenberg, 2014). In this dissertation, *immigrant* refers to individuals who were born in one country, then moved to another—referred to as the *host country*—for either an extended or temporary stay (for stays between two months up to permanent relacations; see also Sirin, Ryce, Gupta, & Rogers-Sirin, 2013). The Center for Disease Control and Prevention (2015) defines *minority population* as individuals having origins in any of the original peoples of Asian countries (e.g., Far East, Southeast Asia, and Indian subcontinent), African countries, countries with Spanish culture (e.g., Cuba, Mexico, and Puerto Rico), Pacific Islands (e.g., Hawaii, Guam, and Samoa), and American Indian and Alaska Native tribes. According to the US Census, immigrants account for 12.9% of the total US population (Grieco et al., 2012), and more than 37% of the US population is categorized as minorities[1] (The United States Census Bureau, 2012).

Compared to people who are categorized as non-immigrant and non-minority populations, immigrant and minority populations are more susceptible to adverse health partially due to the differences in linguistic backgrounds and cultural practices (DeCamp et al., 2013; Lee, Rodin, Devins, & Weiss, 2001; Ndiaye, Krieger, Warren, &

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[1] The US Census defines minority as any group of American citizens other than American non-Hispanic white. In their documents (i.e., Colby & Ortman, 2015), immigrants are referred as foreign-born populations. These two categories are separated based on one's citizenship; thus, no one is categorized in both groups.

Hecht, 2011). Including immigrants and members of minority populations who stay in the US five years or longer, 20.71% of the US population speaks a language other than English at home (The United States Census Bureau, 2015). These statistics indicate that approximately one in five people in the US use a language other than English to deal with everyday situations, including health-related issues. Moreover, 8.63% of the US population speaks English less than “very well” (The United States Census Bureau, 2015). These individuals, as well as the ones who speak a language other than English at home, immerse themselves in the conceptualization of health and/or illness within the framework of their specific culture and language. One purpose for examining the conceptualizations of health and illness for immigrant and minority populations is to highlight the importance of linguistic and cultural concepts within the context of health, with the hope of improving health outcomes.

This dissertation is an attempt to deepen our understanding of how the use of language and linguistic skills affect an individual’s health management. The following sections include discussion about the relationships among language, culture, and health management to show (a) how culture and language are involved in individuals’ health management synchronically and diachronically, and (b) how language, culture, and health management are related to one another.

Language, Culture, and Health Management

Language and culture are inseparable. Individuals’ use of language is central to their lives, essential in constructing knowledge and gaining common understanding (BjoÈrnsdottir, 2001; Gregg & Saha, 2007; Kramsch, 1998). Simultaneously, when individuals use language for communicating their attitudes and beliefs, their use of language is inextricably bound to their cultures (Kramsch, 1998). The ways individuals use language, including their word choices, accents, tones of voice, pitches, and conversational styles represent and reflect their cultural reality, for example, how issues and events should be conducted and understood within a specific culture. Cultural values, norms, and practices are developed, recreated, and negotiated largely through interactions using language. Consequently, language and culture are part of a complex, dynamic system in which each component influences and is influenced by the others (Williams, 2000).

By functioning as a vehicle for one's culture, social identities, and illness ideologies, language systematizes a socially inherited collection of practices and beliefs, influencing the structures of our lives (Sapir, 1921). The relationships among language, culture, and health management are interrelated, intertwined and complex; these relationships cannot be reduced to simple causal relationships. Better understandings about the ways communication and language use affect health outcomes.

To this end, examining the use of language reveals the ways individuals categorize and understand the framework of cultural concepts as well as how individuals within a specific culture conceptualize illness and health (Irvine & Gal, 2009; Sapir, 1921; Wierzbicka, 1997; Williams, 2000). Individuals communicate their experiences of health and illness by using language, specifically the conditions of health and illness are *expressed*, and these expressions influence individuals' *experiences* of health and illness. This dissertation is an examination of the relationships among language, culture, and health management by examining individual narratives.

Considering the myriad ways that language, culture, and health management are related provides (a) the groundwork for later chapters about language barriers in healthcare settings, and (b) the meanings of language barriers developed and negotiated in patient-clinician interactions in the US and Japan, two similar but distinct sociocultural, sociopolitical environments. Next is a discussion about the ways language is related to illness ideologies.

Language and Illness Ideologies

What are illness ideologies? This question provokes and even more basic one: What is ideology? Ideology reflects the idea frameworks that shape understandings and expectations about how individuals and society should operate and manage issues in the world (Golden, Berquist, Coleman, & Sproule, 2011). There are frequently recurring features within the debate about this term (Woolard, 1992).

> *Ideology* is most typically taken as conceptual or ideational, i.e., having to do with consciousness, beliefs, notions, or ideas. […] These ideological concepts or notions are viewed as derived from, rooted in, reflective of, or responsive to the experience or interests of a particular social position, although they may be presented as universally true. […] the most central notion is that of distortion, falsity, mystification, or rationalization. […] Ideology is an intimate connection to social power and its legitimation. (Woolard, 1992, pp. 237-238)

Depending on social and cultural background, ideological views differ among individuals, even on the same issue (i.e., health and illness), contributing to social tension among idiosyncratic, competing expectations of individuals within a cultural group.

Illness ideology represents the beliefs and ideas about what should be regarded as a healthy state, how physical and psychological states should be interpreted, and how these states should be managed (Maddux, 2008). Presented in the following section are two ways that language and illness ideologies are related. First, the use of language reflects a coherent health practice and illness ideology. Individuals create discourse to communicate experiences of and expectations for health management. For example, Javanese women with Type 2 diabetes understand their having diabetic conditions as their fates, noting that the illnesses come from God (Pitaloka & Hsieh, 2015). For these women, the process of managing their diabetes is tightly "related to their personal, familial, and social obligations and the resources available to the family" rather than taking the prescribed medicine (p. 1162). The nature of discourse differs depending on individuals' social and cultural backgrounds, as if a linguistic feature depicts or displays essential aspects of the group (Irvine & Gal, 2009). Words typically carry implicit connotations and assumptions that influence communication in everyday interaction, in part by characterizing taken-for-granted beliefs and notions of common sense (BjoÈrnsdottir, 2001; Saussure, 1983; Williams, 2000). Rather than encoding, the use of words signifies the framework of our understandings of the world, along with the culturally patterned system of messages, dialogue, and conversation (Saussure, 1983). For example, by claiming that examining the use of language helps reveal the underlying meanings and worldviews within specific communities, Williams (2000) illustrated the ways Russian proverbs transmit and reinforce individuals' cultural attitudes toward health. Close examinations of these proverbs reveal that Russian individuals perceive that "health is only obtained and maintained through great effort and the corollary would seem to be that health is not the steady state, and that unless great efforts are made toward maintaining health, the body will naturally tend toward sickness" (Williams, 2000, p. 124). The proverbs depict Russians' attitudes in fatalism: Even when the medical treatments do not lead to better health statuses, it is not doctors' fault. Rather, their health statuses were meant to be in that condition, as a matter of fate (pre-determination worldview). Embedded in recurrent proverbs, illness ideologies are reproduced and reinforced through everyday interaction, and are used to indoctrinate children and other newcomers to the culture (immigrants, for example).

Second, language is inevitably positioned within sociopolitical contexts. It is cautious and explicit, influencing one's experiences in managing health at the macro level. Language in social and political processes influences how individuals define health and illness, as well as how they explain life events (Muehlenhard & Kimes, 1999). In the development of social science, for example, language has been central in sharing research findings and developing theoretical knowledge (BjoÈrnsdottir, 2001). Theoretical and scientific knowledge are linguistic constructions rather than "a mirror reflection of reality" (BjoÈrnsdottir, 2001, p. 160). Often mediated by individuals with power, these research findings and theoretical knowledge are brought into policy making processes, and they influence available resources as well as social and medical practices (Maddux, 2002). This underscores the power imbalances, along with language, in deciding whose conceptual understandings of illness and health shape the social values and provide the foundation for policy making (BjoÈrnsdottir, 2001; Muehlenhard & Kimes, 1999). For example, the language of illness ideology used in psychiatry and clinical psychology differentiates concepts of psychological normality and abnormality (Maddux, 2002, 2008). Written by parties with power, the language of clinical psychology functions as the language of medicine and pathology (Maddux, 2002). The language, and the power embedded in it, are often developed and maintained in official documents (i.e., Diagnostic and Statistical Manual of Mental Disorders, dictionaries, encyclopedias), prompting practitioners and medical students to label individuals whose characteristics fit these descriptions. The language used in these documents tends to "situate the locus of human adjustment and maladjustment inside the person rather than in the person's interactions with the environment or in socio-cultural values and socio-cultural forces such as prejudice and oppression" present in the ideology (Maddux, 2002, p. 14). Such a use of language promotes dichotomies between clinical and non-clinical populations, isolating the individuals who are labeled within the societal illness ideological structure (i.e., stigmatization; Maddux, 2008). Moreover, because of the imbalance in power associated with language, illness ideologies belonging to immigrant and minority populations are regarded as non-ideological, invalid, substandard, wrong, primitive, and eventually silenced (BjoÈrnsdottir, 2001; Woolard, 1992).

In addition to these imposed labels, another example shows that the use of language and illness ideology prevents individuals from being labeled with certain illnesses for accessing social resources (i.e., health insurance). If an individual's symptoms cannot be explained by the language based on the illness ideology belonging to the powerful groups in the society (i.e., governments and institutions), the individuals may not be able to utilize health insurance and are required to manage their health without any financial support (Conrad & Barker, 2010; Lee et al., 2001). For individuals who are labeled as psychologically abnormal against their wishes, as well as those who wish to be labeled in order to obtain health services, it is challenging to manage health while maintaining other illness ideologies. The wording in official materials varies along with the changes in space (i.e., social and political environments) and time. These changes in illness ideology further affect the individuals' experiences of health and illness.

As discussed above, interactions among language and illness ideologies are socially constructed, developed, and modified over time. Understanding the relationships among languages and illness ideologies is, thus, important not only for taking the perspectives of researchers and practitioners, but also for comprehending the health management processes, including the ways culture and health management are interrelated, discussed in the next section.

Culture and Health Management

A culture consists of values, norms, and practices that individuals within that culture believe or must know to successfully operate in everyday situations in a manner that is acceptable to its members (Goodenough, 1964). Culture is not inherited, rather individuals learn cultural values, norms, and practices through social interactions with other group members (Purnell, 2012). Cultural knowledge, values, norms, and practices influence individuals' ways of thinking and behaviors in patterned ways (Leininger & McFarland, 2002). Whether or not individuals can perform in a way that is consistent with cultural values is a test that must be passed to claim group membership (BjoÈrnsdottir, 2001; Williams, 2000). Such socialization processes are some of the most influential factors shaping one's social values, including illness ideologies

(Conrad & Barker, 2010; Purnell, 2012). Individuals learn what it means to be healthy, how specific physical and psychological conditions should be explained and understood, and how health should be managed. The following sections address the relationships between culture and health management in two ways: (a) health management in a specific cultural context, and (b) health management in a cross-cultural context.

Cultural values influence the ways that individuals understand and interpret physical and psychological conditions, as well as epidemiological determinants of disease and illness (Kleinman, 1980). For instance, the examples discussed in Bentall (1992) demonstrate the ways societies assign meanings to psychological conditions, including happiness and depression, for example. Regardless of its association with cognitive abnormalities, happiness is regarded positively without a specific category in many culture and societies, whereas other types of cognitive abnormalities—depression and anxiety, for example—are categorized as psychiatric disorders (Bentall, 1992). Negatively categorized symptoms often become stigmatized diseases, too frequently resulting in social sanctions (e.g., facing difficulties in terms of employment). Obtaining emic perspectives is necessary to identify the meanings attached to specific physical and psychological conditions. The following sections demonstrate ways that culture influences the meanings of symptoms. An example discussed in Csordas (1992) depicts how a Christian community, a cultural group based on a religion, delineates the scope of responsibilities for one's physical and psychological well-being. The case of Martin (twenty-two-year-old male, Catholic) who has experienced excessive levels of sexual arousal regardless of the time of day or night, can be regarded/diagnosed as schizophrenia or other mental disorder in many communities. Diagnoses with such negative connotations would place a substantial burden on Martin, noting that his symptoms are related to several misdemeanors. However, the members of this Christian culture held the idea that Martin was labeled as demonized, as a simply unfortunate individual picked by a demon, leaving no room for personal responsibility for his symptoms, another instance of a pre-determination worldview in which Martin is a victim of fate and demons. Differences in social attitudes toward illness influence individuals' willingness to seek help and gain accessibility to resources (i.e., support from people in the community, or medical treatment).

Health management becomes a further challenge and more complex when health management processes are situated within multicultural contexts; people with various cultural backgrounds bring different illness ideologies to the interaction. Illness symptoms may or may not be understood with biomedical explanations. When symptoms can be linked to biomedical, pathological explanations, the challenge often becomes how to reconcile/negotiate competing illness ideologies. For example, Fadiman (1997) illustrates the different meanings of health and illness among members of an immigrant Homng family and their American medical providers situated within a medical system in Merced, California. Using the case of Lia Lee, diagnosed with epilepsy, the author explored the diverse meanings of health brought from biomedical and psychosocial perspectives. Homng individuals frame seizures as the evidence of having "the power to perceive things other people cannot see" (Fadiman, 1997, p. 21). Therefore, epilepsy can be regarded as a divine feature among Hmong communities—certainly not something to be medicated or segregated. On the other hand, Western social groups typically regard epilepstic symptoms as an impairment, in some cases, disqualifying individuals from serving in positions of power (i.e., Jesuit priest) or from having certain social priviledges or employment (driving a car or mass-transit vehicle, for example). When it comes to seeking treatment, Lia's family tried to negotiate and express their cultural identity and social and political power: it is necessary for Lia's family to see healers (*Shaman*) to call back her soul, while also utilizing state-of-the-art medical technology locally available. Lia's family was either not understanding or was unwilling to strictly follow the ways suggested by the biomedical health providers. Homng individuals conveyed that "it was good to do a little medicine and a little neeb [spiritual healing], but not too much medicine because the medicine cuts the neeb's effect" (Fadiman, 1997, p. 100). Lia's case shows that both groups—Lia's family members and their American doctors—recognized symptoms and the need for treatment. However, their explanatory models and prefered treatments differed significantly.

When an illness cannot be adequately understood with biomedical explanations, emic perspectives emerge to isolate/define and explain illnesses and relevant treatments. For example, the fatigue syndrome experienced by Chinese individuals living in Toronto, Canada resembles the functional disorders of Chronic Fatigue Syndrome (CFS), Myalgic Encephalomyelitis (ME), and Systemic Exertion Intolerance Disease (SEID), as described in North American literature (Lee et al., 2001; Mayo Clinic, 2016). Without concrete physiological and/or pathological explanations for this syndrome, Chinese individuals attribute various causes (i.e., interpersonal conflicts, overwork, a psychological disorder, or yin-yang imbalance). Although these individuals see biomedical medical practitioners to “rule out major illness,” they are less likely to be convinced about the explanations and reluctant to comply with prescribed and/or suggested treatment regimens (Lee et al., 2001, p. 101). The practitioners of traditional Chinese medicine are better able to get to the root of the symptoms and provide explantions of illnesses and ailments constructs based on Chinese culture. With such culture-based explanations of illness syndromes, the individuals are more adherent to suggestions for treatment. This example does not indicate that one way is better than the other, rather, it means that culture is deeply rooted in illness ideologies, and this affects individuals’ ways of managing health in general, illness, disease, and treatment.

Interrelationships among Language, Culture, and Health Management

These close interrelationships among language, culture, and health management imply that insufficient skills and/or performance in managing one of the components can influence the processes and outcomes within other areas. For example, a lack of language proficiency presents challenges in communicating in culturally appropriate ways, which can contribute to difficulties within an individual’s cultural community. A lack of language proficiency also enhances difficulties in expressing one’s symptoms or describing an illness, clouds understandings of other, sometimes incompatible, illness ideologies, and may negatively affect negotiations for preferred treatment options. Finally, when individuals lack cultural competence, they may not be able to make appropriate decisions about when and how to seek medical treatment by disclosing one’s health status. As described in Lee et al. (2001), disclosing one’s health conditions, especially those resembling the symptoms of mental disorders, can be stigmatizing within Chinese culture, for example. Not knowing and understanding cultural taboos can produce unexpected challenges in managing health (i.e., stigmatization and social isolation).

Examining scenarios in which individuals encounter challenges in utilizing language in health management contexts is the focus of this study. In particular, the goals of this dissertation include (a) probing the exact ways language barriers contribute to health disparities; and (b) analyzing the ways cultural environments create meanings and functions of language barriers in healthcare settings.

Language Barriers and Health Disparities

Historically health disparities have been recognized as a critical problem worldwide. Researchers and government agencies have addressed this phenomenon using different terms, such as “health inequities,” “health inequalities,” and “health care disparities,” and have not yet reached a unified definition (Braveman, 2006; Carter-Pokras & Baquet, 2002; Fink, 2009). The term “health disparities” is often used in the United States, while the terms “health inequities” and “health inequalities” are commonly adopted in other countries (Carter-Pokras & Baquet, 2002). The terms “health care disparities” and “health disparities” are used in a number of ways (sometimes interchangeably; i.e., Braveman, 2006) reflecting their intertwined nature. However, these definitions are distinct: For example, “health care disparities” sometimes contribute to “health disparities,” and these concepts share some precedents and consequences (Fink, 2009). It is important to clarify what researchers, government agencies, and funding agencies mean by the term “health disparities” because the definition reflects (a) what they hold to be avoidable and unfair, and (b) the criteria used to make these judgments (Carter-Pokras & Baquet, 2002; Fink, 2009). How health disparities are defined and explained has direct implications for making/modifying policies and allocating resources (e.g., taxpayer funding allocations for research; Braveman, 2006; Carter-Pokras & Baquet, 2002).

In this dissertation, the term “health disparities” is used because the synthesis of the literature published in the US functions as the theoretical framework for this study. The literature review started with keyword searches using Ovid, Google Scholar, and Google. Five definitions of health disparities were found, proposed by both individual researchers and health-related institutions (Table 1). By identifying the similarities and differences among these definitions, the sections following the table situate language barriers within the contexts of health disparities.

Table 1: Definitions of Health Disparities, in chronologic order of publication

Source of definition	Definition
Carter-Pokras and Baquet (2002)	“A health disparity should be viewed as a chain of events signified by a difference in: (1) environment, (2) access to, utilization of, and quality of care, (3) health status, or (4) a particular health outcome that deserves scrutiny.” (p. 427)
Braveman (2006)	“. . . differences in health (or in important influences on health) that are systematically associated with being socially disadvantaged (e.g., being poor, a member of a disadvantaged racial/ethnic group, or female), putting those in disadvantaged groups at further disadvantage” (p. 181)
Healthy People 2020 (2008)	“. . . a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.” (p. 28)
Fink (2009)	Theoretical definition: “. . . a decline in a dynamic state or condition of physical and psychological well-being for one

	individual or group compared with another that is not a result of individual physiologic variance." Operational definition: ". . . difference in a measurement of a health variable between an individual or a group with specific defining characteristics disproportionate to a defined measure for another individual or group when other variables have been controlled (genetics, sociocultural beliefs and values, personal choice, and other variation from the normative measure)." (p. 354)
Centers for Disease Control and Prevention (2015)	". . . preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations. Populations can be defined by factors such as race or ethnicity, gender, education or income, disability, geographic location (e.g., rural or urban), or sexual orientation. Health disparities are inequitable and are directly related to the historical and current unequal distribution of social, political, economic, and environmental resources." (para. 1)

Regardless of the differences in wording, these definitions presented by Carter-Pokras and Baquet (2002), Braveman (2006), Healthy People 2020 (2008), and Centers for Disease Control and Prevention (2015) address health disparities by emphasizing social (in)justices and inequities in healthcare systems. For example, Carter-Pokras and Baquet (2002) examined differences between the terms *inequity*, which signifies an ethical judgment and injustice, and *inequality*, described as lack of equality in services and in opportunities. This definition underscores the need to examine health disparities based on "inequity" more than "inequality" by noting, "what is unequal is not necessarily inequitable" (Carter-Pokras & Baquet, 2002, p. 427). Language barriers present preventable challenges to some degree. In access and process of health care, difficulties in exchanging information can be reduced through the use of medical interpreters and finding language-concordant medical providers. However, these strategies do not always reduce inequities. In addition to higher costs for managing health (waiting time for the medical interpreters to arrive, for example), patients with language barriers often encounter a sense of discrimination generally associated with a lack of language proficiency (Messias, McDowell, & Estrada, 2009) and also experience unexpected medical consequences when buffering strategies are inadequate (i.e., ad-hoc interpreters; Flores, Abreu, Barone, Bachur, & Lin, 2012).

All five definitions specify the aspects of health disparities that should be examined health disparities. The definitions proposed by Healthy People 2020 (2008) and Centers for Disease Control and Prevention (2015) provide the most comprehensive lists of health determinants, including both visible (i.e., demographic information) and invisible (i.e., sexual orientation) factors. Unlike the definition proposed by Fink (2009), in which she targeted the researcher as the primary audience, these two definitions are more easily understood by a broader audience. Thus, the definitions proposed by Healthy People 2020 (2008) and Centers for Disease Control and Prevention (2015) have been adopted by many researchers and institutions, contributing to policy changes and interventions. This list of health determinants is helpful for operationalizing and measuring phenomena. However, adoption of these definitions may make other possible health determinants less visible. None of five definitions explicitly tackles language barriers in healthcare settings, nor do any of them situate the functions and meanings of language barriers in immigrants' sociocultural, sociopolitical, and environmental contexts. As a result, language barriers often appear as a variable that functions independently in impacting immigrants' process and quality of care, when they are mentioned at all.

Segalowitz and Kehayia (2011, p. 486) described language barriers in healthcare settings by noting, “what makes health care communication a potentially productive setting for studying these functions is its universality and the very high stakes that may be involved in miscommunication.” The notion of universality underscores their claim that language barriers in healthcare settings are independent by nature, having similar challenges regardless of sociocultural, sociopolitical, or environmental factors. Similar to Segalowitz and Kehayia (2011), many view language barriers in healthcare settings as a simplistic, practical problem. However, the argument presented here is that language barriers in healthcare settings present unique challenges in healthcare delivery. It is necessary to identify the ways language barriers contribute to health disparities in more detail in order to help researchers, policy makers, medical practitioners and patients make progress in reducing health disparities, especially among the growing immigrant and minority populations.

Unlike the others, the definition proposed by Carter-Pokras and Baquet (2002) specifies the possible contexts in which individuals face challenges in managing health. This definition includes a wide range of possible influences of a variety of health determinants as well as their interrelationships. Studying the phenomenon within its natural context leaves room for researchers to probe individual differences. The definition put forth by Carter-Pokras and Baquet (2002) is used in this study for the following reasons: (a) this definition considers ethical judgments, and (b) this definition provides a more complex picture of health disparities. What is ethical and what is optimal varies depending on which perspective an individual adopts. This study adopts two perspectives. The first is immigrant and minority populations’ perspectives through in-depth interviews. Adopting this perspective enhances understandings of what *these individuals* think is ethical or not, injustice or not. The second perspective is that of the researcher. As a member of the immigrant/minority population, I also am the researcher. This enables me to examine the phenomena from a different perspective. Two perspectives do not always agree on what is inequity and/or injustice. It is possible that immigrant and minority populations are not aware of the inequities, believing that the disparities are normal. When such normative beliefs are identified, it is our ethical obligation to put further efforts for reducing inequality. Thereby, we can promote to protect human right, regardless of his/her social status or cultural beliefs.

Health Disparities Faced by Immigrants and Minorities

Compared to non-immigrant and non-minority populations, immigrants and minorities are more susceptible to adverse health conditions (Fiscella, Franks, Doescher, & Saver, 2002; Lee et al., 2001; Singh & Hiatt, 2006; Williams & Mohammed, 2009). In addition to the health determinants discussed above, immigrant and minority populations tend to experience multiple challenges in managing both physical and psychological health. The following sections take up the factors of health disparities shared by immigrant and minority populations: (a) the impacts of migration, (b) the effects of immigration laws and policies, (c) acculturation and cultural practices, and (d) discrimination.

Impacts of migration.

Impacts of migration have been reported as a predominant theme in narrative accounts of both psychological and somatic illness symptoms (Lee et al., 2001; Torres & Wallace, 2013). Reasons for migrating and expectations of post-migration life as a better life influence immigrants' health. Some individuals migrated because they faced political conflict, economic hardship, and/or other pressures in their home countries (Androff, Ayón, Becerra, & Gurrola, 2011; Zimmerman, Kiss, & Hossain, 2011). Compared to pre-migration, immigrants tend to experience lower living standards and lower social status in their host countries. Immigrants who had high socioeconomic and/or social status in their home countries, especially when the high status was tied to social values (i.e., a shaman), may experience psychological distress when facing difficulties in finding equivalent positions and respect from members of host societies (John et al., 2012). In this manner, a lack of time or perceived needs to envision the realistic post-migration life places significant impacts on individuals' psychological well-being and their willingness to seek help for any number of social, economic, psychological, or physical difficulties. And, even when they do seek help, the language barriers covered above add difficulties, discussed in more detail below. Moreover, unplanned migration often involves sudden separation from social networks that have provided support that enhances individuals' physical and psychological well-being (Berkman, Glass, Brissette, & Seeman, 2000; Cislo, Spence, & Gayman, 2010). Therefore, these circumstances present high possibilities of developing mental illness even after these individuals have settled in their host countries (Eisenman, Gelberg, Liu, & Shapiro, 2003; Fortuna, Porche, & Alegria, 2008). Pre-migration circumstances influence not only individuals' psychological well-being but also their legal status and acculturation processes (Torres & Wallace, 2013).

Immigration laws and policies.

Immigration laws and policies, as well as social environments, can have substantial impacts on the well-being of immigrant and minority populations (Androff et al., 2011; Salas, Ayón, & Gurrola, 2013). Immigrants' legal status—specifically whether an individual is documented or undocumented—is an influential factor in determining the extent to which individuals are exposed to health risks and the available resources for managing health (e.g., public coverage of health insurance; Derose, Bahney, Lurie, & Escarce, 2009). Undocumented immigrants experience near-constant distress (i.e., fear of deportation; Ammar, Orloff, Dutton, & Aguilar-Hass, 2005; Gonzales, Suárez-Orozco, & Dedios-Sanguineti, 2013), as well as difficulties obtaining jobs with fair treatment and that provide a stable income (Nalini Junko, 2011; Salehi, 2010). Consequently, immigrants are susceptible to chronic emotional distress (Brown & Hyatt-Burkhart, 2013; Grant, Compas, Thurm, McMahon, & Gipson, 2004; Reynolds, O'Koon, Papademetriou, Szczygiel, & Grant, 2001), occupational hazards, and adverse health conditions related to unhealthy habits (Ndiaye et al., 2011). Immigrants and minority populations often have less access to healthy foods, for example, and may be working during dinnertime so that preparing meals and monitoring their children's eating habits aren't possible on a daily basis. Similarly, these groups may not have access to equipment or facilities to exercise. In addition to these challenges, individuals in immigrant and minority populations tend to encounter challenges in maintaining health due to their acculturation and cultural practices in their host societies.

Acculturation and cultural practice.

What is regarded as normal and desirable (e.g., healthy) is culturally and socially constructed (e.g., absence of disease, or spiritual well-beings; Conrad & Barker, 2010). Immigrants arriving in their host countries experience acculturation through "the process of negotiating social and cultural norms between two or more cultures that typically involve home (country of origin) and host cultures" (Sirin et al., 2013, p. 737). Acculturation is a multi-factorial concept, requiring close attention not only to visible factors but also to the influences created in the intersections of these factors (Teruya & Bazargan-Hejazi, 2013). In the process of settling in, immigrants experience tensions in managing themselves within the fluid boundaries of different cultural and social practices and beliefs, diets, languages, and economic systems (Ayers et al., 2009; Berry, 1997; Park & Rubin, 2012). By assigning symbolic meanings to certain behaviors (e.g., drinking alcohol as a token of being adults or in-group members, or gender roles), individuals' cultural practices often encourage behaviors recognized as health risks (Cline, 2011). Such cultural practices play a role of cultural chauvinism by maintaining and strengthening the ties and peer-pressure among people who share racial and ethnic backgrounds, and inhibit these individuals from acquiring new practices adopted by the host culture. Simultaneously, individuals may feel they are *required* to adopt specific cultural and social norms in order to survive (and thrive) in their host countries (Kim, 2001). Researchers (e.g., Lopez-Quintero, Shtarkshall, & Neumark, 2005; Pérez-Escamilla, Garcia, & Song, 2010) found that individuals with low acculturation levels tend not only to seek their own culture-specific medical treatment, but also experience inadequate access to the dominant healthcare system in the host country (i.e., biomedical treatments, including preventive care, in the US; Clough, Lee, & Chae, 2013; Fadiman, 1997). These dilemmas are unavoidable. It is quite difficult to fully maintain cultural practices from one's home country while being exposed to new and different cultural (and medical) practices in the host country (Kramer, 2013).

The acculturation process presents different challenges depending on other health determinants; one of the most noticeable of these determinants is gender (Anderson, 1987; Rodriguez, Myers, Mira, Flores, & Garcia-Hernandez, 2002; Yoshioka, Gilbert, El-Bassel, & Baig-Amin, 2003). Although facing similar difficulties in the process of acculturation, females are more susceptible to psychological distress, whereas males tend to develop physical illnesses (Torres & Wallace, 2013). The notion of traditional gender roles and/or expectations influence psychological and physical well-being by implicitly suggesting individuals conform to some behaviors and avoid others (e.g., being submissive for females, not to show weakness for males; Anderson, 1987). For example, female immigrants, especially women who migrate from South Asian countries (e.g., Indonesia), tend to (a) perceive less control over events around them, (b) accept male-dominant relationships, and (c) receive less social support (Alvi, Zaidi, Ammar, & Culbert, 2012). Discarding or refusing the traditional norms throughout the acculturation process is particularly challenging because these notions are practiced through daily interaction with people who share a culture (e.g., family members and close peers).

Another noticeable determinant is language. Culture and language are important components of one's health and identity (Viruell-Fuentes & Schulz, 2009). Crossing borders often changes immigrants from cultural and linguistic experts to cultural and linguistic novices. By making comparisons between their ideal Self based on their past experiences (i.e., active members of the society) and perceived Self-image in their host society (i.e., members of inactive, powerless, and marginalized populations), individuals with low language proficiency tend to experience psychological distress (Bennett, Culhane, McCollum, Mathew, & Elo, 2007; Higgins, 1989; Rodriguez et al., 2002). The lack of socio-linguistic abilities and cultural understanding inhibits some immigrants from being more fully involved with neighborhood residents and other people in their host countries (Alvi et al., 2012), contributing to social isolation and having less knowledge about social norms and values, including those related to health management. The discrepancies in self-image and possible social isolation produce more severe impacts on immigrants who arrive later in life, when compared to those who migrate before age twelve (Brown & Hyatt-Burkhart, 2013; Mena, Padilla, & Maldonado, 1987).

As shown above, the process of acculturation differs depending on a number of factors. When family members acculturate at different rates, negotiations about cultural differences contribute to family conflicts, which may in turn may result in negative effects on psychological well-being and available social support (Portes & Rumbaut, 2001; Rivera et al., 2008). While early generation immigrants experience such psychological dissonance in the process of adapting to their host countries, later generation immigrants often experience stress related to a lack of ethnic and cultural identities (Rodriguez et al., 2002; Viruell-Fuentes, 2007). Acculturated immigrants (e.g., later generations and early generations living in host countries for long periods) experience stress from perceived discrimination based on their racial and ethnic identities and daily interaction with people in the host countries.

Discrimination.

Perceived discrimination is one of the factors influencing the psychological and physical well-being of immigrants and minorities (Torres, Driscoll, & Voell, 2012; Williams & Mohammed, 2009). Racial and ethnic identities, as well as the use of language (e.g., non-fluency and accent), highlight immigrants' (possible) social status as foreigners/outsiders (Torres et al., 2012). Such status often involves stereotypes and stigmatization (e.g., stealing jobs, draining resources, and committing crimes; Salas et al., 2013). These stereotypes often force individuals to prove they are in compliance with immigration law regardless of their legal statuses (Southern Povery Law Center, 2009). Immigrants' racial and ethnic identities are often passed on to children, and a majority of these children, who were born in the US and who become naturalized citizens, will be categorized as minorities in the host society.

Anti-immigrant reactions often contribute to new laws, regulations, and policies (e.g., English-Only in the U.S.; Mahalingam, 2006). Such negative sentiments contribute to unfair treatment, no matter how many years these individuals have lived in specific countries or the degree to which they have assimilated (Deaux, 2006; Gonzales et al., 2013). Racial and ethnic discrimination impose challenges for immigrants and minorities in maintaining both psychological and physical health (Pahl & Way, 2006; Roehling, Jarvis, Sprik, & Campbell, 2010). Their awareness of the negative connotations embedded in social interaction increases the risk for (a) developing psychological distress (e.g., anxiety, depression, and psychosomatic complaints; Sirin et al., 2013; Tracy & Marrar, 1999; Williams & Mohammed, 2009), and (b) adopting unhealthy behaviors to cope with stress and frustration (e.g., substance consumptions; De La Rosa, 2002; Minior, Galea, Stuber, Ahern, & Ompad, 2003; Williams & Mohammed, 2009). Both psychological and behavioral responses to acute and/or chronic stressors can trigger functional and structural changes in physiological systems (e.g., immune systems;(i.e., immune systems, neuroendocrine, and autonomic; Williams & Mohammed, 2009).

Such psychological distress and substance abuse not only contribute to emotional instability among immigrants and minorities, especially adolescents (e.g., aggressiveness; Smokowski & Bacallao, 2006), but also reduce the likelihood that these individuals will obtain higher social status (e.g., through academic and occupational achievement; Suárez-Orozco, Rhodes, & Milburn, 2009). In this way, perceived discrimination re-creates the negative, self-reinforcing loop of discrimination and stereotypes. Chronic stress has greater impact on both physical and psychological health when compared to acute stress (Alvi et al., 2012; Torres et al., 2012; Yakushko, Watson, & Thompson, 2008).

To cope with hardships, immigrants and minorities often rely on social support systems (Alvi et al., 2012; Hovey & King, 1996; Williams & Mohammed, 2009). Lynam (1985) delineated three categories of possible resources for immigrants and minorities when seeking social support: Kin (family members), insiders (community members who share ethnic/cultural identities), and outsiders (individuals who do not share ethnic/cultural background). Immigrant women tend to rely on people in kin group and insiders for social support because they assume the family ties and shared norms and cultural backgrounds make it easier for others to understand their situation (Lynam, 1985; Yoshioka et al., 2003). However, immigrants sometimes intentionally choose outsiders when seeking social support because they are reluctant to disclose mental health problems to family members and insiders due to (a) the stigma associated with specific illnesses (e.g., mental illness, HIV/AIDS) in specific cultures (Alvi et al., 2012), or (b) "cultural chauvinism" that discourages individuals from questioning cultural norms and beliefs (Narayan, 1995).

The health determinants discussed above set the immigrant and minority populations apart from their counterparts (e.g., native-born, citizens). It is clear that several additional factors make immigrants and minorities more susceptible to adverse health. However, it is important to note that compared to the general population in the host society, immigrants do not necessarily suffer adverse health conditions. For example, a well-known phenomenon, *immigrant health paradox* (or "healthy migrant hypothesis") demonstrates that despite the newly arriving immigrant population's lower income and education levels, they often have health outcomes that are comparable to (and even better than) their counterparts in the general US population (Escobar, 1998; John et al., 2012; Mendoza, 2009; Rosenberg, Raggio, & Chiasson, 2005; Singh, Rodriguez-Lainz, & Kogan, 2013; Speciale & Regidor, 2011; Subedi & Rosenberg, 2014).

Researchers have identified various health determinants in attempting to explain this phenomenon. Differences in acculturation levels, acculturation-related stress, dietary practices, health behaviors, age of arrival, current age, the amount of time spent in the host country, legal documentation, health insurance provisions and availability, and gender have been shown to contribute to immigrant health paradox (Teruya & Bazargan-Hejazi, 2013). For example, some researchers (e.g., González et al., 2009; Humes, Jones, & Ramirez, 2011) found inconsistent relationships between the acculturation process and psychological distress among Latino immigrants. Although the large number of researchers' findings show that immigrants who migrate after the age of 12 face severe depression symptoms; some studies, however, show that Latino immigrants tend to have fewer of these symptoms and conditions (e.g., social anxiety disorder) if they spend their childhood years in their homeland before moving to a host country, and if they intend to become citizens of the host country when they reach the legal age of 21 (Heilemann, Lee, & Kury, 2002). Moreover, stress experienced during the acculturation process can bring positive effects to their physical well-being in the long run (González et al., 2009). Such inconsistencies and convoluted interrelationships among factors gives us warnings against using terms like "immigrant health paradox" and "healthy immigrant hypothesis" because they "oversimplify complex patterns and mask negative outcomes among underserved sub-groups" (e.g., speaking fair/poor English, experiencing stress during acculturation) (John et al., 2012, p. 2085). The degree to which individuals enjoy these paradoxical health effects fluctuates depending on racial/ethnic background, social support, self-selection bias, exposure to environmental determinants, and other factors (John et al., 2012; Uretsky & Mathiesen, 2007; Urquia, O'Campo, & Heaman, 2012).

Despite possible benefits of the immigrant health paradox, immigrants and minorities remain at risk of health disparities in part, at least, because they tend to belong to populations associated with multiple health determinants (Ngo-Metzger et al., 2003). It is also important to remember that not everyone in immigrant and minority populations is identified with the same health determinants. Not all immigrants or members of minority groups face language barriers, for example. However, individuals who do experience language barriers inevitably face cultural barriers in pursuing optimal healthcare.

The current study is an examination of the ways these individuals with language barriers experience health disparities. This requires giving specific attention to sociocultural and sociopolitical needs for assistance in both accessing care and negotiating the processes of the healthcare system (Thomas, Fine, & Ibrahim, 2004).

Cultural Barriers Misconstructed as Language Barriers

About the time that health disparities started gaining researchers' attention, two articles in *the Journal of General Internal Medicine*, a leading journal in the health management field, attested the role of language barriers in explaining health disparities among various racial and ethnic groups (Saha, Fernandez, & Perez-Stable, 2007). These two articles (Cheng, Chen, & Cunningham, 2007; Sentell, Shumway, & Snowden, 2007) compared immigrant and minority populations (i.e., Hispanic and Asian populations) to their white counterparts in the US, in terms of their adherence to recommended treatments and the use of mental health treatment. These researchers examined variables between white populations and racial/ethnic groups in general, as well as racial/ethnic groups with and without limited language proficiency. Although the researchers acknowledge the possible influences from other factors (i.e., acculturation), they attribute the disparities primarily to limited language proficiency.

As discussed above, the use of language is inextricably linked to one's cultural orientation. This close relationship between language and culture produces misunderstandings—people, including healthcare providers, may misidentify cultural barriers as language barriers and may believe that obtaining linguistic support alone drastically mitigates any adverse effects of racial/ethnic disparities. The following sections delineate the differences between cultural barriers and language barriers by referring to the fundamental constructs used in the Health Belief Model (Rosenstock, 1974): perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. This theoretical model has been used to better understand and explain the reasons why people fail to engage in preventive care, to react to symptoms, and to comply with prescribed medical regimens (Janz & Becker, 1984). Because many researchers have adopted this model for health interventions, demonstrating the differences between cultural barriers and language barriers using this theoretical model is beneficial to prevent misconstructions and misidentifications.

Perceived susceptibility refers to individuals' subjective views of vulnerability to health conditions. *Perceived severity* indicates these individuals' attitudes concerning the seriousness of their health condition (Janz & Becker, 1984). These two constructs influence individuals' motivations to seek healthcare treatment and to adhere to the recommended treatment. Culture influences perceived susceptibility and perceived severity of health conditions. Hispanic populations, for example, tend not to perceive the need for preventive care or to adhere to recommended treatments because for these individuals, time is orientated to the present rather than the future (Austin, Ahmad, McNally, & Stewart, 2002; Galanti, 2014). Individuals with present-time orientation prioritize survival and crisis management over avoiding future problems. In addition to other factors, including the fear of possible side effects, concerns for financial burdens, and perceived treatment inefficacy, these individuals tend to reduce adherence to the treatment after they pass the critical phase (Garcia Popa-Lisseanu et al., 2005). By focusing on the present condition, which could be asymptomatic before or after taking treatments, these individuals tend not to perceive themselves as susceptible to health risks. By perceiving less susceptibility, many of these individuals may not put much effort into obtaining information from medical providers, hospital discharge personnel, pharmacists, and other patient-clinician interactions. Although language barriers do play a role in reducing the amount of information these individuals obtain through the interaction, it is necessary to remember that cultural barriers must be considered. Thus, it is important not only to be clear in providing instructions, but also healthcare providers must give clear rationale for the treatments, so that communication can mitigate such cultural barriers.

Perceived benefits refers to an individual’s opinion of the efficacy of recommended action in reducing the risk of facing adverse health conditions (Janz & Becker, 1984). Depending on one’s cultural background, meanings attached to certain health conditions differ. For example, some members of Hispanic populations explain cancer as a health condition partially reflecting one’s moral framework (Austin et al., 2002); members of this group describe cancer as God’s punishment for immoral or improper behavior. Some Hispanic populations believe that cancer is beyond their control and there is nothing they can do to either prevent or cure it (Lobell, Bay, Rhoads, & Keske, 1998; Suarez, Roche, Nichols, & Simpson, 1996). Such a fatalistic attitude is not universal among all Hispanic populations (Leyva et al., 2014). However, with this fatalistic view, taking recommended treatments and/or adhering to medical guidelines is unnecessary and may reduce one's motivation to listen to the suggestions and instructions from healthcare providers. It is important to note that even when a fatalistic view is present, we should not consider it as a complete barrier. There are ways to mitigate the barriers by re-framing the relationships between cancer and religious beliefs (i.e., God will create miracles; Leyva et al., 2014).

Finally, *perceived barriers* indicates individual perceptions about potential negative effects of certain actions (i.e., taking recommended behaviors; Janz & Becker, 1984). As with other constructs, an individual's cultural orientation influences what he or she perceives as negative or challenging, for example. Hispanic women associate cervical cancer screening with perceived embarrassment they associate with pelvic examinations (Tavafian, 2012). Embarrassment is a stronger predictor of avoidance of cervical cancer screening when compared to perceived susceptibility of getting the disease, and the perceived benefits of early detection (Richardson et al., 1987). Moreover, whether the individuals were treated by a female or male physician, their perceived barriers were not significantly affected (Richardson et al., 1987; Tejeda, Thompson, Coronado, & Martin, 2009). When treating psychological disorders, different types of embarrassment kick in. Stigmatization attached to psychological disorders is significantly greater in non-white populations (i.e., Asian and African), including US-born individuals (Abdullah & Brown, 2011; Erum Nadeem et al., 2007). Perceived stigmatization may reduce the rate at which these individuals seek treatment, even when they are aware of the possible resources.

These examples demonstrate that there are cultural factors also involved when immigrant and minority populations fail to follow treatment recommendations or utilize available recourses. Although it is tempting to attribute failure in interventions to language barriers, because language barriers are held to be easier to detect (i.e., by asking one or two questions in a survey or by noticing disfluencies or accents when speaking), it is necessary to avoid mistakes when labeling cultural barriers as language barriers. Such misconstructions contribute not only to less fruitful health interventions, but also to counterproductive effects, as described in the next section.

Implications of Language Barriers on Health Management

Both healthcare professionals and researchers recognize the importance of providing care that is culturally appropriate and linguistically adequate. As the world becomes increasingly globalized, problems faced by all individuals with language barriers that negatively affect health management become increasingly salient.

Language barriers in the health management context are some of the most visible barriers experienced by immigrant and minority populations. Researchers and healthcare providers may attribute a number of challenges in multilingual and multicultural patient-physician interaction to language barriers. Regardless, it is important to recognize that a) culture as well as language is a significant determinant in healthcare contexts, and b) language barriers are not automatically or completely eliminated by adopting medical interpreters (Flores et al., 2012; Messias et al., 2009). Language, culture, and health management are interdependent. Implications of language barriers on health management include the idea that individuals with language barriers inevitably face cultural barriers. The mechanisms that account for language barriers among immigrant and minority populations, however, have yet to be identified.

The goal for this study is to situate the meanings and functions of language barriers in the contexts of the host society. In particular, by examining the narratives gathered from the participants, I compare and explore differences in sociocultural (e.g., social norms), sociopolitical (e.g., laws and regulations), and environmental (e.g., geographic locations) contexts in the US and Japan and the similarities and differences in the impacts of language barriers on immigrants' processes and quality of healthcare. By studying language barriers in these contexts, I aim to present one of the first theoretical frameworks designed to explain the processes and pathways through which language barriers influence immigrants' and minorities' health experiences and outcomes.

CHAPTER TWO: LITERATURE REVIEW

This chapter provides a review of literature about language barriers in healthcare settings, cultural and sociopolitical influences in healthcare, and the pathways and processes through which language barriers contribute to health disparities. The first section focuses on language-discordant patients as a unique population by addressing the ways previous researchers have studied language barriers in healthcare settings. The second section describes the need to integrate sociocultural and sociopolitical influences in healthcare when examining language barriers in these settings. The third section presents a theoretical diagram that illustrates direct and indirect pathways that language barriers contribute to health disparities, based on the previous literature conducted in the US. This is followed by a review of the previous literature conducted in Japanese to explore possible differences in meanings and functions of language barriers.

Language Barriers in Healthcare Settings

When individuals migrate they face challenges in managing mundane tasks due at least in part to differences in lingual, sociocultural, and sociopolitical environments. As social status changes from being a member of a majority group to becoming a minority individual, tasks that were easily accomplished in the home country become challenging.

Language barriers in healthcare settings are one example of this phenomenon. Because language plays an essential role in managing one’s health, it is no surprise that difficulties in using the language dominantly spoken in the host country place adverse influences on health. Individuals with language barriers face challenges not only in accessing medical treatment, but also in exchanging information in patient-provider interaction, obtaining health-related information, and adhering to recommended treatments (Divi, Koss, Schmaltz, & Loeb, 2007; Flores, 2006; Jacobs, Chen, Karliner, Agger-Gupta, & Mutha, 2006; Karliner, Ma, Hofmann, & Kerlikowske, 2012; Timmins, 2002). When such difficulties are combined with the tendency of immigrants and minorities to experience low socioeconomic status and limited social interaction, individuals with language barriers are identified as a vulnerable population. This area deserves more attention given the rapidly growing immigrant population globally. In the following sections, I conceptualize language discordant patients as a unique population through the literature on language barriers in healthcare settings. Then, I discuss some of the shortcomings of the existing literature.

Language Discordant Patients as a Unique Population

Language barriers have deleterious effects in various stages in health management: access to care, utilization of healthcare, and quality of care. Compared with language proficient populations, individuals with language barriers are less likely to utilize primary care, preventive service (i.e., eye, dental, and physical examinations), and screening (i.e., mammography and Pap smear; Austin et al., 2002; DuBard & Gizlice, 2008; Flores, 2006; Kirkman-Liff & Mondragón, 1991; Timmins, 2002; Woloshin, Schwartz, Katz, & Welch, 1997). Moreover, language discordant patients are less likely to have health insurance compared to their counterparts after adjusting for demographic factors (Pérez-Escamilla et al., 2010; Yu, Nyman, Kogan, Huang, & Schwalberg, 2004). These tendencies contribute to higher rates of using emergency departments and receiving delayed diagnoses (Timmins, 2002; Zambrana, Ell, Dorrington, Wachsman, & Hodge, 1994).

Healthcare for individuals with language barriers cannot be effectively delivered in the same ways as for patients with language proficiency, attributable at least in part to the unique challenges related to their language barriers (Bischoff, 2012). Difficulties in expressing themselves and describing their symptoms, pain, and perspectives within patient-provider interaction are closely related to adverse effects on health (i.e., increased risk of misdiagnoses and inappropriate treatments; Divi et al., 2007; Flores et al., 2003; Jacobs, Agger-Gupta, Chen, Piotrowski, & Hardt, 2003). Such difficulties often contribute to the use of more diagnostic tests and invasive procedures by medical providers (Ku & Flores, 2005; Timmins, 2002). Unnecessary examinations place excessive financial burdens on patients, while too few examinations may contribute to overlooking possible symptoms. Individuals with language barriers are also more likely than their counterparts to experience hospitalization (Bischoff, 2012; Flores, 2006). And, compared to language-concordant patients, language-discordant patients are more likely to encounter adverse events during hospitalization (Cohen, Rivara, Marcuse, McPhillips, & Davis, 2005) and to receive recommendations to stay longer in hospitals (John‐Baptiste et al., 2004). However, this group is more likely to leave the hospital against medical providers' recommendations (Flores, 2006). Moreover, when consulting about psychiatric conditions, individuals with language barriers are more likely than others to be diagnosed with severe psychopathology (Flores, 2006). Language discordant patients are less likely to receive appropriate amounts of medication, and are more likely to face drug complications (Bischoff, 2012).

Some of these challenges (i.e., reduced rates of receiving screening tests, ineffective interaction, lack of understanding instructions, and mistakes in following recommended treatment and medication regimens) are shared by individuals with low health literacy (Fernandez et al., 2004; Wilson, Chen, Grumbach, Wang, & Fernandez, 2005). Defined as “the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions” (Institute of Medicine, 2004), *health literacy* is experienced by individuals with language proficiency. Researchers found these overlapping challenges. Although health literacy is highly correlated with language proficiency, they represent distinct challenges (Sudore et al., 2009). Oral language proficiency does not ensure adequate health literacy (Leyva, Sharif, & Ozuah, 2005). Even when linguistic services are used, language discordant patients remain less likely to have proper access to health related information, receive cancer screenings, and achieve optimal health outcomes compared to language-concordant patients (Flores et al., 2012; Sentell, Braun, Davis, & Davis, 2013). Moreover, even when individuals have adequate health literacy, language-discordant patients are less likely to understand their medical providers’ explanations, express their concerns and conditions, and interact with their caregivers (Sudore et al., 2009).

Compared to language-concordant patients, language-discordant patients are less likely to fully understand the recommended treatment procedures, adhere to the recommended treatment and medication, and return for follow-up appointments (Fernandez et al., 2011; Flores, 2006; Karliner, Auerbach, et al., 2012; Wilson et al., 2005). Health outcomes among language-discordant patients is poor even when compared to their counterparts (Cohen et al., 2005). Language-discordant patients often use medical interpreters to mitigate the negative effects of language barriers. However, some of these patients still encounter higher rates of medical complications and negative clinical consequences, especially when medical interpreters have not received proper training (Flores et al., 2012).

Differences in patient satisfaction toward patient-clinician interaction exist between language-concordant and –discordant patients. Compared with language-concordant dyads, language-discordant dyads expressed lower satisfaction with patient-provider interaction, treatments, completeness of care, courtesy and respect, explanation of treatments, and discharge instructions (Carrasquillo, Orav, Brennan, & Burstin, 1999; Fernandez et al., 2011; Morales, Cunningham, Brown, Liu, & Hays, 1999). Their satisfaction rate tends to decrease when these patients do not have access to a medical interpreter (Ngo-Metzger, Sorkin, & Phillips, 2009). Because conversation is the core of patient-provider interaction, individuals with language barriers inherently lack access to therapeutic aspects of their relationship with their medical providers (Timmins, 2002).

In sum, the empirical research studies tend to confirm speculation that language-discordant patients are less likely to benefit from healthcare, both preventive care for avoiding adverse health effects as well as care designed to mitigate health problems, when compared to patients with language proficiency. Adverse effects of language barriers have been observed even when medical interpreters are present and the patient has an adequate level of health literacy. Language-discordant patients face greater challenges in achieving optimal health outcomes in various stages in the procedures when compared to language-concordant patients. This has been consistently demonstrated. Given the high rates of medical complications and the growing number of immigrants and minorities around the world, it would appear that the healthcare needs of language-discordant patients are great.

The studies of language barriers in healthcare settings have presented a series of problems and opportunities to the researcher to mitigate health disparities experienced by immigrants and minority populations. Despite the overwhelming number of studies conducted on language barriers in healthcare settings, there are only a few studies about how we should define and understand language barriers in healthcare settings. A lack of arguments on these issues may reflect the generalized perceptions of language barriers as simplistic, practical challenges in healthcare settings.

Understanding Language Barriers in Healthcare Settings

To share and examine research findings in depth, it is necessary to understand how researchers have defined and operationalized language barriers historically. Many questions surrounding this topic have not been explored. In the following sections, I address the ways previous researchers define and operationalize language barriers in healthcare settings, and address the lack of research in both definitions and operationalizations.

Definition of language barriers in healthcare settings.

The literature review conducted by Segalowitz and Kehayia (2011) is the only article identified as explicitly examining definitions of language barriers. These authors define language barriers in healthcare as “language-based obstacles to successful communication between a patient and a health care provider that have consequences for health care delivery” (p. 482). This definition is limited in that it does not capture the complex nature of language barriers in healthcare settings in two ways. First, the definition limits the focus of examination within patient-provider interaction. Although patient-provider interaction is the primary situation in which language barriers contribute to negative outcomes, language barriers also affect health maintenance before and after patients interact with medical providers (i.e., obtaining information about screenings and following the hospital discharge instructions; Karliner, Auerbach, et al., 2012; Sentell et al., 2013). This definition also includes a useful distinction: direct and indirect influences of language barriers.

Second, their definition suggests that researchers examine the phenomena when language-based obstacles have consequences in healthcare delivery. Although the authors are careful to avoid possible confusion among problems affected by language barriers and by other factors (i.e., cultural barriers), their conceptualization fails to address the indirect and/or less visible influences of language barriers. This definition implies that language barriers are recognized as problematic primarily when the patient-provider interaction has negative consequences. The problem with this approach is that it tends to characterize language barriers as dichotomous, either/or phenomena. Language barriers vary in intensity, and involve many levels of language proficiency and sociolinguistic skill. Moreover, the ways to identify the consequences are not explicitly defined. Whether or not individuals experience clinical consequences, however, is largely recognized by medical providers as the standard. When a clinical consequence is recognized in this context, the consequence is typically quite severe. In short, the approaches to identifying language barriers is problematic when based on severe clinical consequences; this approach tends to exclude the subtle but significant consequences that exist, as well as failing to consider the consequences from the perspective of the patients.

Operationalization of language barriers in healthcare settings.

During the past several years, researchers have explored language barriers in healthcare settings to identify how they are correlated with health disparities. These studies have operationalized language barriers in healthcare settings in multiple ways. Three frequently adopted ways are (a) whether or not patients and/or providers request a medical interpreter, (b) patients' self-report about their own language skills, and (c) whether or not providers speak the same language as the patients. Each of these conceptualizations has distinct limitations, as described below.

One of the ways that researchers approach the study of the negative influences of language barriers is to divide patient-provider dyads into two groups based on whether or not patients and/or providers request a medical interpreter (i.e., Cohen et al., 2005). This approach presents at least two limitations. Similar to the previous notion, depicting language barriers as dichotomous, as either/or phenomena can mask more subtle, nuanced levels and characteristics of frequently invisible problems. Moreover, it presents limitations on human beings' abilities to make rational judgments. Their operationalization is based on the assumption that both patients and their providers can correctly assess the need for medical interpreters and their abilities to use interpreters appropriately. Patients and their providers may not be aware of the need for medical interpreters (Jacobs, 2008), and may adopt less ideal alternatives (i.e., ad hoc interpreters) due to various constrains (i.e., waiting time for medical interpreters to arrive, extra time it takes to translate the conversation in real time, and concerns for interpreters' busy schedules; Diamond, Schenker, Curry, Bradley, & Fernandez, 2009; Hsieh, 2015).

Operationalizations based on patients’ self-reports about their own language skills also have a number of limitations. Many researchers (e.g., Andres, Wynia, Regenstein, & Maul, 2013; Jacobs, 2008; Ngo-Metzger et al., 2007; Sentell et al., 2013) adopt the concept of limited English proficiency (LEP) to identify the group of individuals with language barriers. They tend to make comparisons between LEP groups and non-LEP. However, there is no standardized definition for LEP (Wilson et al., 2005), and research studies based on the LEP concept often lack explicit information about LEP scores or ranges used in selecting participants for their studies. Therefore, the ways researchers categorize LEP populations vary across studies, making the use of the studies questionable (Jacobs et al., 2006). When explanations are provided, the categorization of LEP is often based on the question adopted in US Census data: “How well do you speak English?” (4-point scale). Researchers tend to identify respondents who answered “not well” or “not at all” as LEP patients, while categorizing the respondents who answered “very well” and “well” as English proficient patients. This categorization of LEP has been consistent with US Department of Justice guidance (Wilson et al., 2005) and used by many other researchers (e.g., Karliner, Napoles-Springer, Schillinger, Bibbins-Domingo, & Pérez-Stable, 2008; Zandieh et al., 2008). However, this does not necessary assure the validity of the study because this categorization is based on individuals’ perceptions about their own language proficiency. Moreover, the difference between the highest “not well” and the lowest “well” assessment may not be statistically significant. Such categorizations weaken the significance of research findings.

The third way to operationalize language barriers is based on whether or not providers speak the patient’s language. Researchers examined language barriers in healthcare settings by categorizing patient-provider dyads into three types: (a) language-concordant interactions, (b) language-discordant interactions with an interpreter, and (c) language-discordant interactions without an interpreter (i.e., Fernandez et al., 2011; Sentell et al., 2013). Such categorizations often depict language barriers as simplistic—a practical problem that individuals in a specific dyadic category experience in the same ways, to the same degree, with the same affects, etc.

These limitations indicate the complex nature of language barriers in healthcare settings. In addition to the issues related to definition and operationalization, the literature review process revealed two additional limitations in this line of research. First, despite well-documented correlations between language barriers and health disparities, *how* language barriers contribute to health disparities has not been widely studied (Schwei et al., 2015). To create better interventions or countermeasures to mitigate health disparities that individuals with language barriers experience, it is necessary to know substantially more about the precise ways that language barriers contribute to health disparities (Diamond & Jacobs, 2010).

The second limitation is that the majority of studies examining language barriers in healthcare settings are conducted in the US and a few European countries (Butow et al., 2011; Schwei et al., 2015). This is a possible confounding factor in understanding the ways language barriers influence healthcare management and the quality of care.

When examining phenomena, including language barriers in healthcare settings, it is important to remember that the meanings, norms, and customs, along with human behaviors, are embedded in the social context. For example, patient-centered care is the predominant perspective within Western countries. Healthcare providers in Western countries follow specific guidelines and expect/encourage their patients to actively share their health concerns. These expectations and norms influence patients' experience of health and illness. Although the US and European countries provide distinct differences in sociocultural and sociopolitical environments, they share multiple perspectives in health management in general (i.e., adoption of the biomedical approach and a patient-centered care approach) as well as in government regulation (i.e., regulations for providing linguistically and culturally appropriate care; Phelan, 2012; Youdelman, 2008). These differences appear relatively small, however, when compared to the differences between approaches in Western countries and Eastern countries. In non-Western countries, various perspectives (i.e., patriarchal approach) may play predominant roles, and providers differ in their expectations of patients. It may be possible to untangle some of the issues and uncover challenges faced by language-discordant patients only by examining the phenomenon in a variety of sociocultural and sociopolitical environments.

Perspectives

Language barriers present unique challenges to the theoretical development and practice implications in healthcare delivery. In this study, I examine language barriers in healthcare both in Japan and the US. Japan is sometimes regarded as one of the most Westernized societies in Asia (Barber, 1995). This is true when we consider social development throughout the post-WWII era. Japan and the US are involved with international business, including merger and acquisition. Both countries have borrowed words from each other and incorporated them into their social lives and pop cultures. However, this does not mean the two countries have simply increased their similarities.

For example, Bufferin, a pain reliever, is one of the most popular and well-known medicines in Japan. It was imported from Bristol-Myers Squibb (BMS), an American pharmaceutical company, in 1963. Through multiple modifications for the Japanese population Buffferin became substantially different from the Bufferin produced and sold in the US (Lion Corporation, 2015a). In 2005, BMS sold their consumer business to Novartis International AG, a Swiss multinational pharmaceutical company. Because Bufferin in the US was recalled and has not been endorsed by the US Food and Drug Administration since January 2012, lay individuals in the US may not be familiar with this medicine. However, medical professionals may be familiar with this medicine and may cause misunderstandings because the Bufferin that they have in their mind and the Bufferin that Japanese patients talk about are very different medicines. Table 2 shows the differences in ingredients between the product in the US and the one in Japan.

Table 2: Comparisons of Bufferin sold in Japan and in the US

	The US		Japan	
	Bufferin	Bufferin low dose	Bufferin A	Bufferin Premium
Main Ingredients (1 tablet)	• Buffered aspirin equal to 325mg aspirin (buffered with calcium carbonate, magnesium	• Buffered aspirin equal to 81mg aspirin (buffered with calcium carbonate, magnesium	• Acetylsalicylic acid 330mg • Synthetic hydrotalcite 100mg	• Ibuprofen 65mg • Acetaminophen 65mg • Anhydrous caffeine 40mg

	carbonate and magnesium oxide)	carbonate and magnesium oxide)		• Allylisopropylacetrylurea 30mg • dried aluminum hydroxide gel 35mg
Directions	• Adults and children 12 years and over; take 2 tablets with a full glass of water. Dosage may be reported every 4 hours while symptoms persist. • Do not exceed 12 tablets in 24 hours unless directed by a doctor	• Drink a full glass of water with each dose • Adults and children 12 years and over: take 4-8 tablets every 4 hours • Not more than 48 tablets in 24 hours or as directed by a doctor	• Adults (over 15 years): take 2 tablets at a time • Do not take more than 2 times a day • Dosing interval should be more than 6 hours	• Adults (over 15 years): take 2 tables at a time • Do not take more than 3 times a day

(DailyMed, 2015; Lion Corporation, 2015b, 2015c)

The medicine name, Bufferin, has been shared in the US and Japan. However, the compound itself, along with the dosage, and the medical instructions differ substantially. This example illustrates that even when an aspect of healthcare in Japan and the US may appear to be identical, the nuances in managing health can be significant. Practices that are considered safe and appropriate in a given healthcare context are also affected by cultural beliefs. Regardless of the level of cultural competence, patients cannot provide medical treatments to themselves. And, language is one of the most crucial tools needed for individuals to obtain help from medical professionals.

In addition to similarities and differences in medical products, Japan provides a significantly different context in which to examine health disparities among immigrants and minorities. Immigrants and minorities both in Japan and the US can be categorized in similar ways (i.e., as marginalized groups). However, patients in different sociocultural and sociopolitical environments may have very different experiences in healthcare settings.

When examining language barriers, differences in the use of language are some of the most obvious indicators of healthcare disparities within multilinguistic societies. Nonetheless, it is important to note that language-discordant patients inevitably confront cultural differences along with the language issues. In the following sections, I first situate culture in health contexts, followed by discussion about the sociopolitical differences in Japan and the US. Next, I conceptualize the pathways that language barriers follow toward health disparities by providing a diagram, based on the studies reported in the US. I then review the literature involving Japanese participants along with identifying pathways in order to explore possible differences in contextual factors. Finally, I discuss the need for re-conceptualizing language barriers in healthcare settings.

Situating Culture in Health Contexts

When situating culture in health contexts, one must consider how individuals understand culture, and to what extent they believe the culture to be fixed, variable or immutable, and emergent. Culture delineated by national borders is a relatively stable collage of various shared assumptions, values, and beliefs (Hofstede, 1980). By reflecting the beliefs and values of larger populations, culture delineated by national borders is often applied to policies and regulations. On the other hand, cultures found in smaller local units (i.e., communities and personal networks) are more “dynamic and creative, changing and reforming in a historical and geographic context, as its members simultaneously enact and create culture through their unique experiences and behaviors” (Wiley & Allen, 2009, p. 4). These values, beliefs, and assumptions are often reflected in individuals’ behaviors, artifacts, and symbols in everyday life, including health contexts.

The interplay between national and local cultures affects how healthcare practices happen, and this interplay of cultural practices shapes individuals’ experiences of health management. In the following sections, I address the cultural factors that shape individuals’ health management. Then, I describe national level of government policies in the US and Japan to examine how these policies affect individuals’ access to resources.

Cultural Factors in Shaping Individuals’ Health Management

Cultural factors influence how individuals understand reality, how they make sense of things around them, how they interact with other individuals, and how they seek healthcare (Kleinman, 1980). In other words, individuals’ experiences of health and illness are molded by the cultures around them. Because cultural knowledge is acquired through social interaction, it is highly related to one’s use of language. Although the difficulties are frequently oversimplified and categorized too broadly as “language barriers,” language-discordant patients with different cultural backgrounds may experience distinct process barriers. In the following sections, three cultural factors are discussed to revisit the importance in examining language barriers in healthcare settings in different cultures. These factors are (a) collectivism versus individualism, (b) low-power distance versus high-power distance, and (c) host receptivity. The first two factors are discussed based on the national categorizations presented by Hofstede (1980). Hofstede (1980) identified Japanese culture as markedly different from that of the US. Japanese culture is characterized as relatively collectivistic and high-power distance. On the other hand, the US culture is characterized as individualistic and low-power distance. Cultural differences based on these categories are not exhaustive, but they help enhance understanding of cultural variations in terms of the ways immigrants and minorities interact with people in their local communities, the ways they manage their health, and how they communicate with medical providers when receiving medical treatment (Schouten & Meeuwesen, 2006).

Collectivism versus individualism.

In individualistic cultures, such as the US, individual's goals hold more value when compared to the values or goals of larger groups (e.g., family members, colleagues and coworkers, social groups). Thus, US patients typically prefer to be autonomous, to be informed for the purpose of making one's own decisions, in order to play an active role in decision-making processes (Epstein & Street, 2007; Rathert, Wyrwich, & Boren, 2013). On the other hand, individuals in a collectivistic society tend to assume that maintaining and/or improving the group's well-being assures benefits for the individual. When patients are facing life-threatening illness (e.g., cancer), family members of the patient may prefer not to inform the patient about the health condition in order to avoid overwhelming the patient (Obeidat, Homish, & Lally, 2013). Also, it is common in the collectivistic culture in which Japanese patients operate to have family members make decisions based on the belief that such decisions eventually benefit the individuals (Akabayashi, Fetters, & Elwyn, 1999).

Low-power distance versus high-power distance.

Cultures with low-power distance emphasize the value of promoting equal power in physician-patient relationships. This perspective is also reflected in the concept of patient-centered care, commonly part of medical school curricula (Levinson, Lesser, & Epstein, 2010). Low-power distance cultures typically indicate that medical providers expect their patients to be responsible for seeking and digesting the information needed for them to make decisions (Singleton & Krause, 2009). In high-power distance cultures, on the other hand, patients typically expect that the physicians take the initiative and make decisions about their health treatments (e.g., paternalistic nature in clinical interactions; Akabayashi et al., 1999; Akechi et al., 2012). Until 2004, when the Japan Medical Association (JMA), a national group of medical professionals in Japan[2], issued additional explanations to clarify ethical issues,

> Japan has had a long tradition of physician paternalism in which relationships between doctor and patient were clearly asymmetric, as the patient sought help and care from a medical expert whose diagnostic evaluations were more or less indisputable and whose decisions had to be accepted by the patient with no discussion (Nomura, Ohno, Fujinuma, & Ishikawa, 2007, p. 1403).

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[2] The Japan Medical Association (JMA) is the nation-wide organization for Japanese physicians. Their mission is to ensure and promote the highest standards of medical ethics and education for protecting the health of all Japanese citizens (Japan Medical Association, 2016).

JMA's attempt contributed to making information sharing and informed consent more prevalent. However, playing an active role in the decision-making process is still challenging for some patients due to the "marked differences in authority between themselves and their physicians" (Watanabe, Takahashi, & Kai, 2008, p. 7).

When one's home and host cultural orientations are drastically different, patients may hold unrealistic expectations toward medical providers in their host societies. When such expectations are not met, language-discordant patients may evaluate their experiences of receiving medical treatments as unsatisfactory even if they received culturally standard treatments from local individuals' perspectives.

Host receptivity.

Host receptivity is defined as the extent to which local, native-born residents are open to newcomers (i.e., immigrants) and willingness to make accommodation and share opportunities to participate in the social communication process (De Jong & Steinmetz, 2004; Kim, 2001). Host receptivity is another important dimension of health management. The level of host receptivity influences not only how immigrants acculturate to the host society, but also how much local residents make social resources (e.g., healthcare) available and accessible to immigrants and newcomers (De Jong & Steinmetz, 2004; Prins & Toso, 2012). Immigrant groups face different levels of host receptivity, even during the same time and in the same geographic area (Prins & Toso, 2012). For example, Latinos face more severe challenges in terms of host receptivity in rural areas in the US compared to Asian immigrants. This is mainly based on how these immigrants are perceived in their host communities. Although each immigrant engages in tasks for their survival in their host societies, these individuals' survival strategies carry different symbolic meanings to local residents (e.g., Latinos 'steal Americans' jobs' while Asians create or bring business and money; De Jong & Steinmetz, 2004; Prins & Toso, 2012). In Japan, on the other hand, Asian immigrants face lower host receptivity compared with Caucasian immigrants, including mestizos. Sato (2009) attributed this tendency to the historical deal called 脱亜入欧 (*datsua-nyuuoh*) “leaving Asia and entering Europe” (p. 24). First verbalized in 1877, this deal indicates that the Japanese government attempted to leave other Asian countries by labeling and positioning them as Third World countries, while perceiving European countries as superior and as worthy of joining in economic, diplomatic and other activities. These aspects of host receptivity underscore the possibility that language-discordant patients face different levels of host receptivity even in the same cultural environment.

Host receptivity can be more challenging for immigrants and newcomers in the geographic areas in which communities are strongly tied to their histories (Prins & Toso, 2012). Host receptivity in Japan is much lower compared to the US, a country built on immigration (Androff et al., 2011; Kim, 2001). As a result of several fluid factors (e.g., labor market and the level of acculturation), host receptivity can fluctuate over time and affect the ways that native born people treat immigrants and newcomers (e.g., economic hardships can ignite and/or grow the negative attitudes toward immigrants; Burns & Gimpel, 2000). Economic difficulties experienced worldwide in the last decade have increased hardships on immigrant populations in both Japan and the US and immigrants are likely to confront less host receptivity due in large part to limited social resources and a lack of confidence in the future.

The concept of host receptivity has its origins in the form of government policies, laws, and regulations. Although previous researchers (i.e., Kim, 2001) described government policies and regulations as a factor that affects the level of host receptivity, I argue that host receptivity can also influence government policies and regulations. Governments that ignore mass opinion and perceptions of its citizens do not survive. In the following sections, the local authorities' willingness to make accommodations for immigrants and newcomers is examined by making comparisons between Japanese and the US policies and regulations related to providing linguistically appropriate care.

Comparing Language Policies in Health Contexts

According to recent statistics, documented immigrants account for 13.01% of the US population (Singh et al., 2013; The United States Census Bureau, 2014) and 1.87% of the Japanese population (Ministry of Justice, 2014; Statistics Bureau, 2015). Because these statistical reports do not include the number of undocumented immigrants, it is highly likely that the actual percentage of immigrants is larger than reported. However, these numbers are helpful for us to picture the social environment around immigrants living in both the US and Japan. How immigrants and minorities experience their health and healthcare largely depends on the culture of the host society, its approach to healthcare, and the availability of social resources (Dalla & Christensen, 2005; Ndiaye et al., 2011). The following sections include comparisons between Japan and the US in terms of the ways these countries differentiate immigrants from citizens and how these differences affect the extent to which immigrants and minorities have access to resources for reducing the adverse effects of language barriers. Table 3 shows the summary of these differences.

*Policies in Japan***.**

Japanese citizenship is primarily extended to the children of "original Japanese citizens" the government accredited around the beginning of Meiji period (1868-1912). The Meiji period was the time when Japan actively expanded businesses and interaction with other countries. By anticipating the need to delineate citizenship, the Japanese government developed the "Family Registry" (戸籍 *koseki*). Except the traveling venders and missionaries around open ports in Nagasaki prefecture, the Japanese government regarded everyone living in the Japanese territories as "original Japanese citizens" regardless of their origin or ethnic identity (e.g., including Hayato people and Kumaso groups; Sato, 2009). This indicates that although it is unclear which ethnic groups have been regarded as original Japanese citizens, it is certain that Japanese citizens are not ethnically homogeneous (Sato, 2009). Since the Family Registry started, the Japanese government listed anyone who is neither an original Japanese citizen nor their offspring on "the Alien Registration" (外国人登録 *gaikokujin tohroku*) until July 2012. Currently, immigrants who used to be listed on the Alien Registration are listed on the same list as other Japanese citizens. However, the social differentiation between Japanese and immigrants stands out in stark relief even after more than 140 years.

Under the Japanese social security system, immigrants and minorities with valid documentation who stay in Japan more than 90 days are eligible to have national health insurance (国民健康保険 *Kokumin kenkoh hoken*) (Okubo, 2004). This national health insurance provides equal quality of medical treatment and access to healthcare to every insurance holder. However, when it comes to social resources, specifically language services, the Japanese state of being a jus sanguinis reinforces the tendency to exclude immigrants and minorities without Japanese blood (Sato, 2009), negatively affecting access to health-related resources. The Japanese government sets no legislative guidelines for providing language services to immigrants and minorities, except for Japanese returnees from China (Iida, 2010). Those with Japanese blood are entitled to receive government's support to have access to medical interpreters (Iida, 2010, 2011). Immigrants and minorities without Japanese blood primarily rely on services provided by local governments, non-profit organizations, and medical institutions (e.g., websites written in multiple languages, volunteer interpreters, and computer systems assisting multilingual and multicultural interactions; Iida, 2010; Miyabe, Yoshino, & Shigeno, 2009; Nakamura, 2012; Ueda, Ogihara, Yamaji, & Mitani, 2011).

When it comes to undocumented immigrants (specifically, those who overstay their visas), the Japanese government adopts criteria to determine the extent to which undocumented individuals receive government's support for their healthcare, depending on how strongly and stably these individuals are tied to their *address* (Okubo, 2004). In this context, the ties with one's address means more than just the physical location. It also includes a person's ties to their family and community. To be qualified, undocumented individuals need to show not only proof of the physical location where the person lives, but also their records of foreigner registration/ residency registration, the records of their visas and other documents, detailed information about their family members living in Japan, both the nationalities of themselves as well as their family members, and the immigrant's intentions and likelihood of having stable lives in certain

Japanese cities (Okubo, 2004). Whether or not an individual is regarded as one with stable ties to his/her address depends largely on legal interpretations. Thus, the *duration* of stay alone, even when it is more than 20 years, does not guarantee the criteria are met (Okubo, 2004).

Private or employer-based health insurance may be available for people who do not have citizenship or proper documentation. However, this does not ease the challenges in obtaining health insurance. Private health insurance can be more expensive than government or employer-based insurance. Moreover, these individuals may have to provide documentation when purchasing health insurance, which puts individuals who have overstayed their visas at risk of deportation. This lack of health insurance makes it more difficult for immigrants to pay medical bills, which in turn, triggers and increases negative reactions toward immigrants. Although both unpaid bills and language barriers are often top concerns that medical providers share when interacting with immigrant patients, unpaid bills tend to draw medical providers' attention much more than the language barriers in healthcare settings (Iida, 2011; Okubo, 2004).

Policies in the United States.

Unlike Japan, the US primarily extends citizenship based on the place one was born. Immigrants' children are US citizens as long as they were born in the US and its territories. The US government offers health insurance, including Medicaid and Medicare, for US citizens and permanent residents who meet specific qualifications. Medicare is a government health insurance program available for US citizens and permanent residents who (a) are 65 or older, (b) are younger than age 65 with specific types of disabilities and/or are with end stage renal disease (Centers for Medicare & Medicaid Services, 2015b). On the other hand, Medicaid is a needs-based program funded by both federal and state governments. In addition to the basic requirements (e.g., the US citizenship or permanent residency), one must meet the income-based eligibility to receive the service (Centers for Medicare & Medicaid Services, 2015a). Individuals who do not meet these criteria are responsible for selecting their own health providers based on quality and cost either by themselves or through employer-based health programs (De Gagne, Oh, So, & Kim, 2014). Choosing health insurance can present additional obstacles to maintaining good health for immigrant populations who are not familiar with the US social and healthcare systems (De Gagne et al., 2014).

With the continual increases not only in the number of immigrants, but also in the diversity of these groups (e.g., ethnic, linguistic, and cultural characteristics; Singh & Hiatt, 2006), the US government enforces laws that require medical institutions receiving government funding to provide linguistically and culturally appropriate healthcare (Youdelman, 2008). These providers measure the extent to which they are legally required to provide language services based on the percentage of annual admissions for inpatient or outpatient care, or on the percentage of the population in a certain geographic location. Unfortunately, such a policy does not ensure successful mitigation of adverse effects caused by language barriers because not all medical providers are knowledgeable about laws and policies (Schwei et al., 2015; Youdelman, 2008). However, laws and policies do have substantive influence on the extent to which healthcare providers offer language related services.

Table 3: Comparisons between Japan and the US (policies and statistics data)

	The United States	Japan
How one acquires a citizenship	A jus soli, which provides citizenship to people born in the US and its territories.	A jus sanguinis, which provides citizenship to people who have at least one parent with any Japanese blood.
Percentage of immigrant population (registered immigrants/total population)	13.01% 41,300,000/316,100,000 (Singh et al., 2013; The United States Census Bureau, 2014)	1.87% 2,359,461/127,083,000 (Ministry of Justice, 2014; Statistics Bureau, 2015)
Government's health insurance	Medicaid / Medicare • US citizens and legal permanent residents with special needs are eligible (Centers for Medicare & Medicaid Services, 2015a, 2015b)	National health insurance (*Kokumin kenkoh hoken*) • Japanese citizens and one with legal documentation are eligible
Language-related resources	Providers who receive taxpayer funding must offer meaning access to healthcare to LEP patients: they decide how much/type of language-related services to provide based on the percentage of the patients they have (Youdelman, 2008)	There is no law forcing the providers to offer language related services except for Japanese returnees from China (Iida, 2010) Local governments, NGOs, and medical institutions attempt to solve the issue

Although comparisons of health status between immigrants and US citizens may show different results (e.g., the healthy immigrant paradox), researchers have generally agreed that immigrants and minority populations confront substantially more challenges in maintaining health insurance coverage and access to preventive health service when compared to US citizens (Singh et al., 2013).

Despite the delineations between documented and undocumented individuals both in the US and in Japan, it is important to note that the United Nations agreements require all people be treated in a way consistent with basic human rights (United

Nations, 1948). When we categorize undocumented immigrants as “illegal immigrants,” such categorization carries negative connotations implying these individuals are criminals who may threaten others. Although these individuals are illegal in terms of immigration, they should still be afforded fundamental human rights (Androff et al., 2011; Sato, 2009).

The sections above highlight the influences of culture and sociopolitical environments on immigrants and minorities living in Japan and the US. These influences contribute to the formation of distinct meanings and functions of language barriers in language-discordant interactions both inside and outside medical institutions. In what follows, I first put forth a diagram illustrating the pathways and processes between language barriers and health disparities, based on the research studies conducted in the US. Then, I have used the research studies conducted in Japan to examine the pathways identified in the diagram by exploring the possible differences in contextual factors.

Pathways to Health Disparities

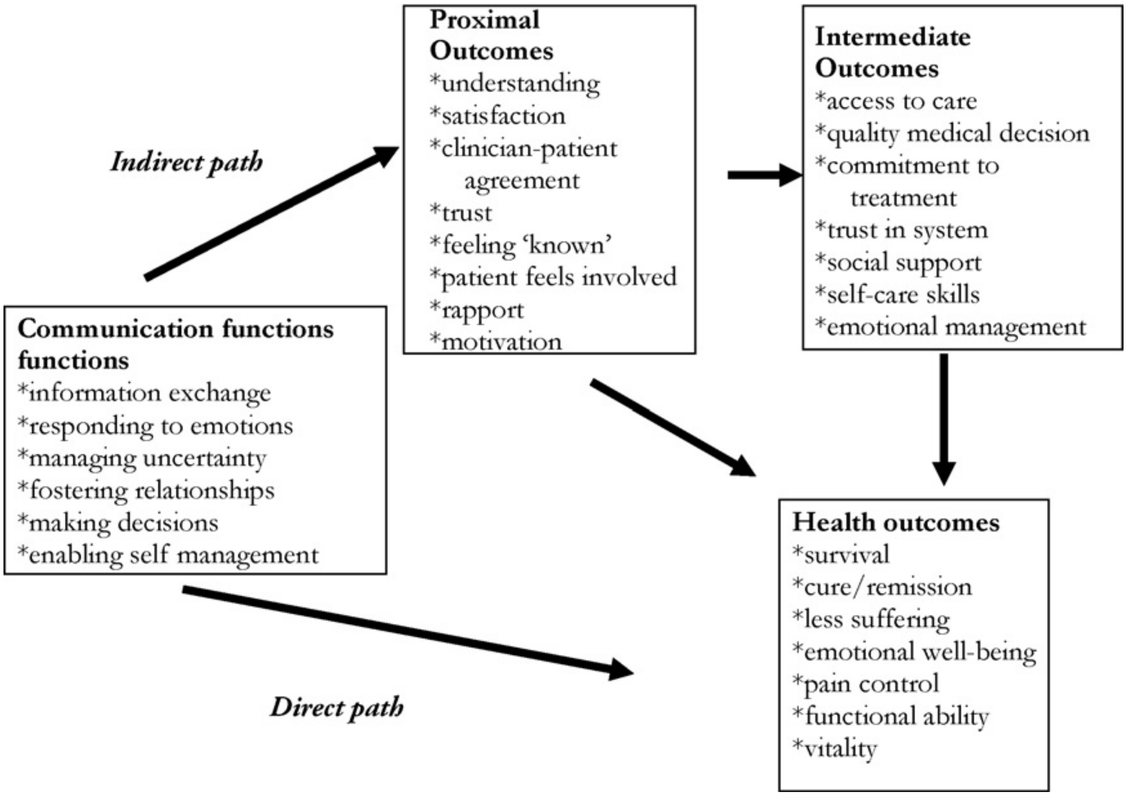
By following the guidelines for narrative literature reviews (Baumeister & Leary, 1997; Green, Johnson, & Adams, 2006), I searched MEDLINE, EMBASE, PsycINFO, Google Scholar, and CiNii (a Japanese library database) using search terms including: language barriers (e.g., language-concordant/discordant, limited English proficiency, 言葉の壁), medical interpreters (e.g., clinical interpreters, community interpreters, 医療通訳), immigrants (e.g., foreigner, minorities, 外国人), and healthcare (e.g., patient–physician communication, relationships, hospital, health insurance, quality of care, 健康保険). I used different combinations of these terms to maximize the number of citations found in databases. These literature searches gathered 1074 citations (*N*=33 studies conducted in Japan). Furthermore, I supplemented the electronic queries by going through the reference lists of the articles gathered. After deletion of duplicates, my search produced 1,301 references (*N*=57 studies conducted in Japan).

Al articles that met the following criteria are included: (a) written in English and/or Japanese, (b) contained data about language barriers in healthcare settings, (c) research relating to immigrants and minorities health. I included both published and unpublished citations to reduce publication biases (Aveyard, 2010). The citations that met the following criteria were excluded without further review: (a) the title and/or abstract confirmed that the focus of the article was not immigrants and minorities as patients, (b) the focus was not specifically language barriers in healthcare settings (e.g., language education and multilingual community development), (c) the studied context was neither in Japan nor in the US, and (d) the articles were not accessible with the Inter Library Loan. I also excluded the articles that addressed only sign languages. In the exclusion process, 115 articles had under titles and abstracts, and it was difficult to determine whether they met the criteria. I reviewed full text for these articles and excluded an additional 94 articles. After applying these criteria, 58 citations (*N*=16 in Japanese) remained.

Because language is a symbolic activity and is associated with multiple aspects of our lives (Gregg & Saha, 2007), language barriers impose challenges at multiple points during an individual's healthcare management processes. To better understand the ways that language barriers lead to health disparities, I created a diagram based on the pathway model presented by Street, Makoul, Arora, and Epstein (2009).

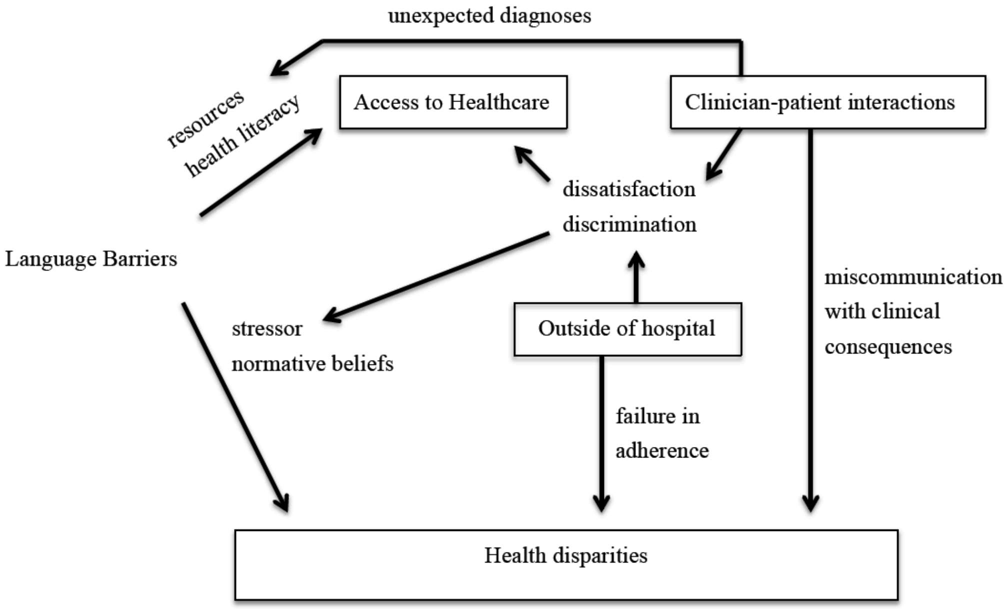
The pathway model (Street et al., 2009) illustrates direct and indirect ways patient-clinician and/or family-clinician communication can lead to better health outcomes (see Fig. 1). Within indirect pathways, the model shows mediated pathways leading to proximal and intermediate outcomes of the patient/family-provider communication that lead to better health outcomes. The authors developed this model with respect to language-concordant patient/family-provider interactions for cancer care, but they also believe that this model is applicable to patient/family-provider communication along with other health conditions.

Figure 1: Direct and indirect pathways from communication to health outcomes (Street et al., 2009)



By drawing insights from the model and the concepts of direct and indirect pathways presented by Street et al. (2009), I identified and organized language-related factors and pathways that may contribute to health disparities in terms of their direct and indirect influence. Because the quality of healthcare often focuses on accessibility to and effectiveness in healthcare practices (Campbell, Roland, & Buetow, 2000), the direct and indirect pathways are aligned as follows: (a) direct pathways to health disparities, (b) indirect pathways to health disparities (access to healthcare), (c) indirect pathways to health disparities (practice in healthcare), and (d) indirect pathways to health disparities (after utilizing healthcare). Figure 2 shows the diagram that I developed based on the literature review (Terui, 2015).

Figure 2: Pathways and Processes between Language Barriers and Health Disparities



Direct pathways indicate the factors that lead individuals to health disparities without using the healthcare system. In this study, *healthcare systems* refer to healthcare institutions that follow biomedical models (predominant style both in the US and Japan). I however recognize that multiple healthcare systems, formal and informal, exist within countries (e.g., Shamanism, Traditional Chinese Medicine, Acupressure, etc.; Fadiman, 1997; Kong & Hsieh, 2012). Indirect pathways, on the other hand, refer to the ways that individuals experience health disparities based at least in part on access to healthcare systems or receiving medical treatment in healthcare systems. This model presents a holistic view in examining these phenomena and the complex interrelationships. It is important to note that this pathway diagram is not linear. The disadvantages related to one factor often influence other factors and pathways (Ndiaye et al., 2011).

Direct Pathways

Direct pathways to health disparities indicate the pathways through which factors affect individuals' health without individuals going through any healthcare system. The stress factors discussed in chapter one (e.g., pre-migration circumstances, legal status, acculturation and cultural practices, discrimination) take direct pathways, contributing to health disparities. This literature review exposed two additional relevant factors: (a) normative beliefs associated with language, and (b) language barriers as a stressor. First, normative beliefs shared within specific communities dictate individuals' ways of managing their health and health seeking behaviors (Kleinman, 1980). In addition, individuals with specific cultural backgrounds may be encouraged to engage in behaviors known to increase risks of illness (e.g., inactivity, unhealthy diet, and substance abuse) as a part of cultural rites of passage and family traditions (Cline, 2011; Ndiaye et al., 2011). Language barriers inevitably restrict one's network, which not only reinforces these unhealthy behaviors, but also prevents individuals from learning what is normal/desirable through interaction with local people. Such communication barriers may put individuals with language barriers at risk of some area-specific illnesses and hazards (e.g., bacillary dysentery, local poisonous insects, and air pollution caused by vehicle exhaust and dust from construction projects). Individuals may not be aware of the need to seek medical treatment (Paasche-Orlow & Wolf, 2007).

Second, as discussed in the first chapter, it is well recognized that perceived stigma and discrimination in everyday life are adverse influences on individuals' health management and health outcomes (Institute of Medicine, 2002; Piette, Bibbins-Domingo, & Schillinger, 2006; Williams & Mohammed, 2009). Individuals' daily language use (e.g., phonology, lexical diversity, and syntax) is inevitably subject to their interlocutors' evaluative reactions (Bradac & Giles, 2005; Lev-Ari & Keysar, 2010; Stuber, Meyer, & Link, 2008). Although some can be evaluated favorably (e.g., in-group membership status), individuals with less common linguistic characteristics can be negatively labeled as outsiders, or as less intelligent, and less sociable (Lambert, Hodgson, Gardner, & Fillenbaum, 1964; Stuber et al., 2008). Such stigmatization is created and maintained through social interaction, and individuals who are the target of discriminatory treatment often become aware of these negative attitudes as they socialize (Clark, Anderson, Clark, & Williams, 1999; Goffman, 1963). This perceived and actual discrimination increases the levels of stress, contributing to non-healthy responsive behaviors (e.g., substance use) and/or psychological distress (e.g., anxiety and sleep deprivation; (Clark et al., 1999; Williams & Mohammed, 2009). Such behavioral and psychological responses to acute and chronic stressors contribute to physiological and functional change (e.g., compromised immune system and reduced mental acuity; Williams & Mohammed, 2009).

These direct pathways are outside the area in which medical providers have influence on the process. Therefore, these pathways underscore the importance of addressing cultural, social, and environmental factors in general, in addition to the specific services healthcare systems can offer (Thomas et al., 2004).

Indirect Pathways: Access to Healthcare

Limited English proficiency (LEP) can contribute to decreased access to preventive health service (i.e., DeCamp et al., 2013; Paasche-Orlow, Wilson, & McCormack, 2010). The factors identified as causes of access barriers are (a) available resources and (b) health literacy. First, the way governments differentiate immigrants from citizens influences the extent to which individuals have access to language related services and health insurance. The US government enforces legislation that requires medical institutions receiving taxpayer funding to provide linguistically and culturally appropriate healthcare (Youdelman, 2008). These policies highlight accessibility to healthcare and reduce the perceived difficulties in accessing healthcare systems. However, when LEP individuals must call (e.g., for making an appointment), challenges remain in large part because many medical institutions do not have receptionists and other front-desk staff members who speak multiple languages (DeCamp et al., 2013).

Second, language barriers are highly correlated with individuals' levels of health literacy, affecting their access to healthcare (Paasche-Orlow et al., 2010; Sentell et al., 2013). LEP individuals tend to have low health literacy, and they are less likely to benefit from written materials (Kuo, O'Connor, Flores, & Minkovitz, 2007; Sentell et al., 2013). Learning how medical systems work and ways to access to these systems requires substantial time and effort for LEP individuals in the host country environment. Therefore, compared with English speakers, LEP individuals are less likely to understand the processes necessary to become insured and to remain insured, for example (Feinberg, Swartz, Zaslavsky, Gardner, & Walker, 2002; Jang, Lee, & Woo, 1998). Difficulties in obtaining proper access to healthcare contributes to delayed diagnoses (Timmins, 2002) and may encourage individuals to focus on treatment for acute and chronic illnesses rather than engaging in available preventive care and health screenings (Conrad & Barker, 2010; Jang et al., 1998).

Previous research indicates that low health literacy is positively related to low socioeconomic status and low educational achievement (Paasche-Orlow & Wolf, 2007). Such findings help to spread and entrench a stereotype that the patients with language barriers are less educated and unable to manage their health autonomously. Because of the challenges in exchanging information, medical providers are less likely to have opportunities to correct such negative perceptions, leading them to reinforce an implicit bias. Thereby, it may provoke healthcare providers to consider individuals with language barriers as less rational or less intelligent than people without language barriers (Ndiaye et al., 2011). Such judgments encourage medical providers to adopt different treatments for individuals based on whether or not they have language barriers. For example, medical providers may conduct more intensive treatment in initial stages of diagnosing symptoms by assuming that these patients would not come back for follow-up treatment.

A systematic review (Sorensen et al., 2012) identified that the most frequently used definitions of health literacy are the ones provided by the Institute of Medicine (2004), the American Medical Association Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs (1999), and Nutbeam (1998). These definitions focus on individuals’ skills to obtain, understand, and make decisions about their own health treatment. By pointing out that a decision-making process involves with both individual and social factors, Sorensen et al. (2012, p. 3) proposed a definition of health literacy that encompasses previous literature on the term:

> Health literacy is linked to literacy and entails people' s knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course.

Although this definition addresses a wider range of issues related to health literacy, an important notion of health literacy has not been challenged: Who measures health literacy? Using what criteria? Employing what standards? Set by whom?

Traditionally, health literacy has been measured based on criteria along with norms and values approved in one's host society (Baker, 2006; Parker, Baker, Williams, & Nurss, 1995). Low health literacy does not suggest that an individual knows little about health management. The person may have high health literacy in his/her home country, in which she/he has full capability to obtain, understand, and make decisions about one's health with relative ease. However, this same individual may be regarded as having low health literacy in the host society, mainly because she/he is unfamiliar with how the medical system works and is not able to easily obtain information about the process in the individual's native language. This situation prompts several questions: Whose responsibility is it to know the various medical treatment options in other countries? What resources should be available beyond language/translation services? Do physicians in host countries always hold more power than patients in general? Than patients who do not share the doctor’s language? Addressing these questions challenges the prevailing understandings of health literacy and contributes to reducing health disparities.

Indirect Pathways: Practices in Healthcare

LEP patients are more likely than English speaking patients to experience adverse events due to communication failures in clinician-patient interactions (Diamond & Jacobs, 2010; Divi et al., 2007; Ngo-Metzger et al., 2009). The occasions for such communication failures are identified along with (a) language-discordance, (b) language-concordance, and (c) the utilization of medical interpreters. First, when language-discordance is present, it is challenging for clinicians to access their patients’ symptoms and medical history, which restricts clinicians’ abilities to make accurate and appropriate clinical decisions and diagnoses (Woloshin, Bickell, Schwartz, Gany, & Welch, 1995). Immigrants and minorities can experience *contested illness.* Contested illnesses (e.g., chronic fatigue; Lee et al., 2001) are illness symptoms or disorders that, by definition, carry particular cultural meanings (Conrad, 2008; Conrad & Barker, 2010). Unless patients can find the exact translation of the words to describe their symptoms, contested illness adds to the difficulties patients experience when explaining their illnesses, its causes, and symptoms (Conrad & Barker, 2010; Woloshin et al., 1995). Because many physicians do not recognize or acknowledge these disorders and symptoms as distinctly medical issues, based on the lack of physical abnormality, individuals who suffer from contested illness encounter difficulties obtaining an official diagnosis required for the condition to be treated (e.g., health insurances; Conrad & Barker, 2010; Dumit, 2006). The process of negotiating and fighting for certain diagnoses requires not only the skills to communicate with medical providers, but also sufficient command of the language to convince healthcare providers that they deserve the specific medical diagnosis required. Failure to make their healthcare providers understand can affect the applicability of their health insurance, potentially resulting in reduced access to healthcare (Conrad & Barker, 2010).

Researchers have reported that LEP patients have less understanding of instructions and medications, tend not to follow recommendations for medical treatment, fail to appear for follow-up visits, and have longer or shorter hospital stays (Bernstein et al., 2002; John-Baptiste et al., 2004; Kravitz, Helms, Azari, Antonius, & Melnikow, 2000; Sarver & Baker, 2000; Wilson et al., 2005). In addition to the actual challenges in exchanging information accurately, *perceived* difficulties in communicating can also contribute to adverse events. Providers' perceptions of their patients' linguistic, racial, ethnic, and class markers may alter the treatment suggested and communicative styles, including clinical questions and treatment recommendations (Ibrahim et al., 2003; Ndiaye et al., 2011). Although these alterations are often based on evidence-based practice (Goldenberg, 2012), it indicates that clinicians perceive their patients with *generalized* knowledge and information, rather than viewing each patient as unique when communicating with them. Such tendencies may be higher when information exchange is less effective due, at least in part, to language-discordance (Woloshin et al., 1995). Evidence-based normative treatment does not guarantee that a specific medical treatment will produce the best clinical outcomes. Rather than the common needs derived from patient pools, evidence-based normative treatments are established based on pharmacy companies' values, determining what is commonly tested in evidence-based approaches (Goldenberg, 2012). Thus, following such standard approaches based on patients' traits (e.g., language proficiency and ethnic/racial identities) does not help patients receive quality care. LEP patients tend to experience either too many or too few diagnostic tests, contributing to the impression of perceived discrimination and patients' dissatisfaction (Mutchler, Bacigalupe, Coppin, & Gottlieb, 2007; Ngo-Metzger et al., 2009).

Further, language barriers often carry negative connotations implying that patients are incompetent. Some patients sense that they are being ridiculed because of their low language proficiency (Mutchler et al., 2007). To be able to detect such negative signals requires a certain level of experience in one's host society because the ways individuals express disrespect and discriminatory attitudes are culturally constructed and vary widely. Given this situation, it is possible that satisfaction reported in previous research may be based on situations in which some individuals with language barriers were not aware of these negative signals. It is also possible that patients may perceive healthcare providers' specific communicative behaviors as inappropriate or contemptuous even when these behaviors are based on medical providers' positive intentions (Hsieh & Terui, 2015). Although healthcare providers' communicative behaviors are not always based on their perceptions of their patients' language abilities, it is possible that these patients attribute such negative experiences to the consequences of their own lack of language proficiency. Lyles et al. (2011) found that individuals with language barriers were more likely than those with language proficiency to report perceived discrimination from their healthcare providers. That being said, language-discordance does not always influence clinician-patient interaction negatively. At least one study has shown that patients' satisfaction in clinician–patient interactions could be achieved despite linguistic and cultural differences (DeCamp et al., 2013).

Second, clinicians sometimes employ their second language skills to pursue language-concordance. When clinicians communicate with their patients in languages that patients speak fluently, patients have higher rates of satisfaction, better adherence to instructions, attending follow-up visits, and exhibiting better control in their health treatment compared with language-discordant pairs (Carrasquillo et al., 1999; Fernandez et al., 2004; Jacobs et al., 2006). Although showing their efforts in creating patient-centered care may bring positive influence as discussed above, it is important to be aware that clinicians' second language skills are not always sufficient and can contribute to negative clinical consequences (Diamond & Reuland, 2009). Moreover, it is important to remember that language-concordance does not always mean people have identical cultural understandings about medical treatment (Andrulis & Brach, 2007). Clinicians' insufficient proficiency in their patients' language reduces effective communication needed to assist in shared decision-making, and may contribute to patients' dissatisfaction (Diamond & Reuland, 2009; Ngo-Metzger et al., 2009).

Third, since 2001, the use of trained medical interpreters has been a standard part of US health practice when linguistic barriers are present (Messias et al., 2009). Using professional interpreters can lead to better care, higher satisfaction, fewer errors that produce clinical consequences, fewer misattributions of psychiatric symptoms and diagnoses, increased patients' adherence to follow up, reduced disparities in utilization of services, lowered medical expenses, and improved clinical outcomes (Baker, Parker, Williams, Coates, & Pitkin, 1996; Bernstein et al., 2002; Drennan & Swartz, 2002; Flores, 2005; Flores et al., 2012; Jacobs, Shepard, Suaya, & Stone, 2004; Karliner, Jacobs, Chen, & Mutha, 2007). There is mixed reporting about the impact of professional medical interpreters on patients' length of visit (Fagan, Diaz, Reinert, Sciamanna, & Fagan, 2003; Kravitz et al., 2000). Despite these positive reports, access to interpreters is not sufficient to ensure that language barriers and associated discrimination are effectively overcome (Abbe, Simon, Angiolillo, Ruccione, & Kodish, 2006; Messias et al., 2009). Even when professional interpreters assist during clinician-patient interaction, the sense of discrimination from providers (e.g., a sense of ridicule for linguistic gaps) is still perceived (Messias et al., 2009). Also, some LEP patients perceive the amount of time to discuss health-related behaviors as limited even with an interpreter. These individuals are less likely to indicate they are satisfied with the treatment (Ngo-Metzger et al., 2009). Finally, due to the lack of microinstructions and regulations, laws have not been successful in ensuring that medical providers use medical interpreters for language-discordant patients (Diamond et al., 2009; Ginde, Clark, & Camargo, 2009).

Jacobs (2008) pointed out that the need for medical interpreters is not effectively communicated. Although access to professional interpreters contributes to patient satisfaction, patients may decline to use professional medical interpreters because they may (a) be motivated to avoid embarrassment caused by their lack of understanding, (b) not notice the needs of the medical interpreters themselves, (c) be aware of possible discrimination attached to language barriers, or (d) be prompted to reduce waiting time for medical interpreters to arrive and extra time it takes to translate the conversation real time (Derose et al., 2009; Jacobs, 2008; Messias et al., 2009). Because clinicians are often not trained to collaborate with professional medical interpreters, they underuse interpreters and either get by with their own second language skills or use ad hoc interpreters (e.g., family members, friends, or staff members) based on numerous factors including (a) the positive beliefs about one's own proficiency in patients' native language(s), (b) their and patients' preference for direct clinician–patient communication, (c) the perceived convenience and effectiveness of ad hoc interpreters, (d) the perceived long waiting time for medical interpreters to arrive and extra time it takes to translate the conversation in real time, (e) unfamiliarity with and distrust of medical interpreters, (f) perceived cost for hiring professional interpreters, and/or (g) their concerns for the colleagues' (medical interpreters') busy schedule (Andres et al., 2013; Baker et al., 1996; Diamond et al., 2009; Hsieh, 2015; Kuo et al., 2007; O'Leary, Federico, & Hampers, 2003; Schenker, Wang, Selig, Ng, & Fernandez, 2007; Yawman et al., 2006). Despite clinicians' positive perceptions toward ad hoc interpreters (DeCamp et al., 2013), they do not provide optimal effectiveness because ad hoc interpreters are less likely to be continuously present in every procedure (e.g., exam room). Thus, the interventions disrupt the flow of communication and medical procedures (DeCamp et al., 2013). Moreover, when using ad hoc interpreters, the accuracy of information exchanged is lower compared to the accuracy attained when professional interpreters are used (Flores et al., 2012; Rosenberg, Seller, & Leanza, 2008). Also, ad hoc interpreters sometimes inhibit patient-physician interactions about sensitive issues (e.g., substance abuse, domestic violence, and sexually transmitted disease; Flores, 2005).

Regardless of the types of clinician-patient interaction (language-concordance, language-discordance, or interpreter-mediated), patient dissatisfaction and perceived discrimination may influence future decisions about accessing healthcare systems (Campbell et al., 2000; Murray & Corney, 1990). In turn, this may contribute to the impression that individuals with language barriers are less likely to come back for treatment. Such an impression, as mentioned earlier, may encourage healthcare providers to recommend more invasive initial treatments (Ndiaye et al., 2011).

Indirect Pathways to Health Disparities (After the Utilization of Healthcare).

In the line of indirect pathways to health disparities, two main language-related factors that contribute to adverse health are identified: (a) failure in treatment adherence and (b) negative experiences (dissatisfaction and perceived discrimination) in the healthcare system. LEP individuals are more likely to suffer adverse health related to failures in communication pertaining to treatment adherence (Divi et al., 2007). LEP individuals tend to misunderstand hospital discharge instructions, including instructions about medications and follow-up appointments (Karliner, Auerbach, et al., 2012; Karliner, Ma, et al., 2012; Leyva et al., 2005; Paasche-Orlow et al., 2010). Even when LEP individuals speak relatively fluently, they may not understand treatment instructions written in English (Sentell et al., 2013; Wilson et al., 2005). Moreover, studies have shown that LEP individuals are less likely to visit pharmacies to maintain their medications based, at least in part, on perceived discrimination about their insufficient language skills (Mutchler et al., 2007; Xu & Rojas-Fernandez, 2003). Researchers report that pharmacists have either neutral or positive attitudes toward interaction with LEP individuals (Muzyk, Muzyk, & Barnett, 2003; Sleath, 2002;

Westberg & Sorensen, 2005). However, because pharmacists are not trained well to counsel LEP individuals (Sleath, 2002), it is possible that this unfamiliarity with LEP individuals contributes to these impressions. After all, what matters the most is patients' perceptions because, once outside the hospital, they must take control of their health maintenance, including making decisions about whether or not to fill prescriptions, arranging follow-up visits as recommended, and seeking medical treatment in the future (Karliner, Auerbach, et al., 2012).

These direct and indirect pathways are conceptualized based on the literature reported in the US. In the following sections, I synthesize the literature reported from Japan to demonstrate the need to conduct cross-cultural studies focused on language barriers in healthcare settings.

Language Barriers Studied in Japan

Along with the diagram presented above, the following information is an examination of literature addressing language barriers in Japanese healthcare settings, focusing on possible differences in terms of the ways language barriers may place challenges differently when examined in different sociopolitical and cultural environments.

Direct Pathways

Along with rapid globalization, Japanese society has increased in diversity and Japanese attitudes toward immigrants and minorities have attracted the attention of researchers (Ohtsuki, 2007; Terasawa, 2014). Very little literature has addressed the relationships between host receptivity in Japan and the health conditions among immigrant and minority populations. However, scholars note that the Japanese sociopolitical environment provides few resources and rights to immigrants and minorities, indicating that Japan remains a homogenous society that places more social sanctions on people without Japanese heritage and Japanese language proficiency (Takahashi, 2009).

Indirect Pathways: Access to Healthcare

As discussed in the previous section, the Japanese government provides language-related resources only to individuals with Japanese heritage (e.g., returnees from China; Iida, 2010). Other individuals primarily rely on community-level volunteers (Iida, 2010). The Japanese social security system allows immigrants and minorities with valid documentation to have government health insurance. For undocumented immigrants, the Japanese government adopts criteria to determine the amount of support in terms of healthcare that undocumented individuals are to receive, depending on how strong and stable their ties to the community are (Okubo, 2004). In addition, without national level government enforcement, local governments in Japan have attempted to address issues related to language barriers in healthcare settings through the use of websites. Local governments and institutions have integrated different languages (e.g., English, Chinese, Korean, Thai, Portuguese, and Filipino) into their websites to make health-related information available to people with language barriers (Ueda et al., 2011). Although the need for some languages (e.g., Thai and Tagalog) is not addressed, these websites are helpful in understanding the basic concepts of public services available and may help reduce delayed diagnoses (the time to wait for volunteer interpreters to learn about systems; Kawauchi, 2011; Ueda et al., 2011; Wakimoto, Chisaki, & Uchida, 2013). However, these websites are limited because services differ depending on where the person resides, and because these websites do not contain detailed information about local procedures (Ueda et al., 2011). This situation contributes to misinformation on the websites, and further degrades confidence in the system.

Indirect Pathways: Practice in Healthcare

Reports from Japan show that healthcare professionals are aware of the need to communicate with patients having various linguistic and cultural backgrounds (Hasegawa, Takeda, Tsukida, & Shirakawa, 2002). Among the 2,359,461 registered foreigners[3] living in Japan, the top four nationalities are Chinese (30.56%), Korean (22.76%), Philippino (9.46%), and Brazilian (7.6%) (Ministry of Justice, 2014). The government's statistical report is consistent with the languages that medical professionals perceive are needed, based on the immigrant patients they treat, and these medical professionals indicate they are having difficulties in keeping up with these needs (Hasegawa et al., 2002; Maeno et al., 2010; Nakagawa & Takuwa, 2012; Non Profit Organization: Advanced Medical Promotion Organization, 2013). Having implemented mandatory education in the English language since 1947[4], Japanese

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[3] In the current study, the term "foreigners" is used when it was the actual term used in the citations (i.e., translated version of Japanese government documents). Except the time (a) when these references use the word as their terminologies and (b) when the term appears in participants' narratives, I intentionally adopt the word, "immigrants."

[4] The idea of implementing a foreign language into Japanese education system was enacted around the time of Meiji Restoration (1868). Although English education had been integrated in some school systems, there was no strict implementation. The use of the English language was banned in the time of WWI and WWII. Since 1947, the English language had been a part of mandatory education system, starting in 7th grade in Japan. In 2003, the Japanese government modified the education system to better

healthcare professionals perceive themselves to be capable to use English, despite the fact that the majority of immigrants, as listed above, are from non-English speaking countries (Abe, 2013; Hasegawa et al., 2002; Maeno et al., 2010; Nakagawa & Takuwa, 2012; Non Profit Organization: Advanced Medical Promotion Organization, 2013; Park, 2007). As with the studies reported in the US (Diamond et al., 2009), physicians in Japan tend to (a) get by with their English skills and/or (b) use ad hoc interpreters when language barriers are present (Maeno et al., 2010). Physicians' English skills tend to be inadequate because English education in Japan does not typically result in an adequate level of proficiency (Hasegawa et al., 2002). Providers' inadequate English skills may tempt patients to refrain from asking questions or expressing their opinions when interacting with medical professionals (Kawauchi, 2011).

Other researchers have reported that medical providers who work for large hospitals in Tokyo, the most ethnically and linguistically diverse prefecture in Japan (with 418,124 registered foreigners: Ministry of Justice, 2014), found that approximately 30% of Tokyo hospitals (a) have refused to accept patients who cannot speak Japanese and (b) have refused to accept immigrant or other non-citizen patients if they are unable to communicate in either Japanese or if the medical provider are confident in communicating in the language that the patients speak (Non Profit Organization: Advanced Medical Promotion Organization, 2013). Similarly, a study conducted in multiple prefectures found that many medical professionals have low

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prepare Japanese children for globalized world. Currently, the English language is implemented in elementally school system.

confidence in providing care to language-discordant patients in part because of the practitioner's lack of language abilities and knowledge of other cultures (Hasegawa et al., 2002). However, other studies have shown that many medical providers do not experience problems in communicating with patients who have language barriers because they *presume* that the language-discordant patients bring ad hoc interpreters (i.e., friends and family members; Arai, Sasaki, & Sato, 2006; Maeno et al., 2010; Nakagawa & Takuwa, 2012).

To assist communication in patient-physician interactions, Japanese scholars attempted to develop computer systems (Miyabe et al., 2009). These systems include a series of flow charts integrating possible questions and answers in multiple languages. Although these systems allow healthcare providers to ask clinical questions to diagnose the patients, they may not be the optimal solution for patients with language barriers because these patients are less likely to *initiate* conversations about their symptoms and concerns. However, 83.7% of immigrants who have lived in Japan for a long time can read Hiragana and Katakana (phonetic writing systems: Park, 2007). Integrating such reading aids could be one of the first steps that local Japanese governments can take.

Similar to the US, no nationwide regulations and guidelines exist to monitor the qualifications and ethics of medical interpreters in Japan (Kawauchi, 2011). Therefore, some local governments approach promoting medical interpreters despite not knowing how to better assist individuals with language barriers (Iida, 2010). The number of training hours that local governments recommend is fewer than the number of hours Flores and his colleagues suggested for training hours to ensure that the medical interpreters can provide quality of care (e.g., 15 hours in Yokohama, 35 hours in Osaka:

Flores et al., 2012; Kawauchi, 2011). Driven by the need to provide better healthcare services to immigrant patients, the Foundation of Global Healthcare, a private institution in Japan, launched a certificate examination in 2011 in order to set standards and guidelines for medical interpreters (Foundation of Global Health Care, 2014). However, this program is only for English speakers, neglecting the need for other languages (e.g., Chinese, Korean, and Portuguese). Unfortunately, a certificate does not enhance the chances of earning a livelihood as a medical interpreter (Kawauchi, 2011). Tight hospital budgets restrict the hiring of trained medical interpreters, noting that "they need volunteers, but not employees" (Maeno et al., 2010; Non Profit Organization: Advanced Medical Promotion Organization, 2013). When medical interpreters serve patient-clinician interactions as volunteers, the locus of responsibility is ambiguous. Many volunteers in Japan purchase "volunteer insurance" in case of (a) making errors in interpretation, and (b) getting injured or contracting an infectious disease (Iida, 2011).

The lack of a standard pay scale, education system, and welfare system contribute to the shortage of medical interpreters (Iida, 2011). With vague recognition of the roles of medical interpreters, Japanese physicians remain unfamiliar with interpreter-mediated-communication (Iida, 2010; Wakimoto et al., 2013). Physicians tend to regard medical interpreters as patients' family members and/or friends, and expect these medical interpreters to play the role of social workers who deal with patients' various issues (Iida, 2011). Moreover, the position title, such as "volunteer" and/or "patient's friend," prevents these medical interpreters from establishing equal footing as a crucial part of the healthcare team (Iida, 2010; Kawauchi, 2011). Facing difficulties in communicating with language-discordant patients, one medical provider in Japan said, “There should be a hospital that is specifically for foreign patients. It is impossible to expect every medical staff member to understand foreign languages” (Non Profit Organization: Advanced Medical Promotion Organization, 2013, p. 4).

The lack of language proficiency does not place this burden equally. By making comparisons among people with various racial backgrounds and language proficiencies, Usui (2013) found that a group of Caucasians reported highest satisfaction in patient-physician interaction in Japan, compared with groups of Black/Africans, Indians, and Asians [97]. This indicates the possibility that different factors amplify/reduce negative effects of stigma associated with language barriers (Usui, 2013). That is, there is a hidden hierarchy in term of the languages that patients use. For example, patients who speak English or other languages associated with Caucasians are treated more favorably than patients who speak other languages. Although it is important to avoid mixing racial and ethnic factors with factors related to language barriers, language is, after all, deeply intertwined with one’s ethnic and racial background. The searches for this dissertation did not identify literature addressing these issues, or those addressing indirect pathways (outside of hospital).

Advancing the Literature on Language Barriers in Health Context

Theoretical Considerations

Previous literature (i.e., Segalowitz & Kehayia, 2011) has depicted language barriers as if they are universal challenges, suggesting that language-discordant patients experience the same difficulties even when operating in different geographic and/or sociocultural environments. However, different geographic locations typically have language-discordant patients within distinct sociocultural and sociopolitical environments. These distinct environments place significantly different influences on (a) how illness and diseases are conceptualized and treated, (b) expectations about how patient-clinician interactions should be, and (c) the social resources that are available to immigrants and minority populations. In many locations, individuals with language barriers may be categorized in the same way (i.e., as "language-discordant patients"). However, they may experience different challenges in the process of managing their health. This underscores the complex interrelationships among language, culture, and health management, indicating that language barriers in healthcare settings are more multidimensional than previous literature depicted. In this study data is used to explore the multidimensionality of the concept of "language barriers in healthcare settings.:

Despite an overwhelming number of studies about language barriers and health disparities, no single theoretical study addressing how exactly language barriers contribute to health disparities has been found. To move forward with theoretical development as well as moving toward the goal of reducing health disparities, I have proposed a theoretical framework to identify the processes and pathways that language barriers follow in contributing to health disparities by examining the extant literature about language barriers reported in the US. In this framework, language barriers are conceptualized as barriers that individuals face at many different stages in the health management process, not limited to access to health treatment and patient-provider interaction. With data for this dissertation collected both in Japan and the US, I re-examine the framework to incorporate Eastern sociocultural and sociopolitical perspectives into the study.

Methodological Considerations

The current research carries two significant points. First is the need for qualitative examination of health disparities. Qualitative research allows researchers to discern "unique, idiosyncratic meanings and perspectives contracted by individuals, groups, or both who live/act in a particular context" (Cho & Trent, 2006, p. 328). In the current study, the narratives obtained through in-depth interviews with individuals with language barriers were examined to address the specific concerns. Deconstructing and reconstructing correlations among language barriers and health disparities are included. Narratives gathered from language-discordant patients reveal (a) ways language barriers influence individuals' health management experiences; (b) ways individuals understand the challenges created by language barriers; and (c) the meanings and functions of language barriers that emerge in distinct sociocultural and sociopolitical environments.

The second significant point is the need to examine language barriers in healthcare in more than one cultural setting. While language barriers and health disparities are well known challenges in many countries, the majority of research on language barriers in healthcare settings has been based on similar cultural environments (e.g., the US and other Western cultures; Butow et al., 2011). Because different sociocultural and sociopolitical environments can sustain distinct norms, customs, and values in health management, previous studies of similar cultural environments indicate the confounding nature of our understandings of language barriers in healthcare settings. Thus, the current study involves narratives collected from individuals living in the US and Japan to examine how different sociocultural and sociopolitical environments influence individuals' experiences of language barriers. This is one of the first comparative studies that investigates language-discordant patients' experiences in different countries.

Proposed Research Questions

To gain better understanding of language barriers and their influences on health disparities, this current study addresses these research questions:

RQ1: How do language barriers create challenges in access to and processes of healthcare?

RQ2: In what ways do language barriers involve different meanings and functions in healthcare settings in Japan and in the US?

RQ3: In what ways do differences in meanings and functions of language barriers impact the quality of care?

It is important to note that the primary purpose of this dissertation is not to examine superiority of one culture over another. Rather, the focus is to analyze the ways different cultures and environments produce different challenges and solutions.

This remainder of this study is divided into the following chapters addressing these research questions: Chapter 3 illustrates the data collection and analysis methods. The fourth chapter provides results and analysis. Finally, Chapter 5 includes discussion about the ways this dissertation contributes to the line of research related to language barriers and health disparities. Limitations of the study and suggestions for future research are provided at the end.

CHAPTER THREE: METHODS

Procedure and Data Collection

A primary goal of this study is to develop a clearer understanding of the health management experiences of language-discordant patients in their host countries. The current study is based on field research conducted during two time periods with individuals living in Japan and the US, and who have language barriers. This study involves participant observation, multiple informal conversations, and in-depth interviews with 60 language discordant individuals. In-depth interviews were used to explore (a) how language-discordant patients experience barriers in maintaining their health in the host societies, and (b) how these individuals understand language barriers in the process of health management. The sections below address procedure and data collection, research participants, and data analysis, followed by a discussion of the verification of research methods used.

Data Collection in Japan

The first round of field research was conducted from May to August 2014. Thirty individuals were recruited in Japan, specifically the cities of Seto, Nagakute, Toyota, and Nagoya within Aichi prefecture, Japan. This prefecture was chosen not only because the researcher is a native, but also because this prefecture has unique characteristics useful to examining effects that language barriers bring to healthcare settings. Aichi is the prefecture with the third highest percentage of immigrants in Japan (Japanese Statistics Bureau and Statistics Centre, 2000). Foreign-born individuals in Aichi prefecture comprise 2.73% of the total population (Aichi Prefectural Government, 2016). Unlike Tokyo, where many tourists visit, Aichi has other aspects that attract visitors and immigrants. In addition to the relatively easy access to an international airport, Toyota city, the location of the headquarters of the Toyota Auto Company as well as many auto factories around the city, appeals to many workers as a place to support their family members in home countries and/or for learning auto technologies.

My personal connections to the area, and past experiences as both a volunteer and for schoolwork during my undergraduate degree program, allowed me to re-enter the field relatively smoothly. In addition to personal connections, I contacted local language classrooms, international institutions, universities, churches, and city centers to recruit participants. I resumed volunteer work at a local Japanese classroom called Homigaoka International Center in Toyota city, where immigrant and/or minority populations gather for improving their sociolinguistic skills through interaction with local individuals. I assisted language-discordant individuals' language learning process. Volunteering at the local Japanese classroom allowed me not only to place myself into the field smoothly, but also to interact informally with possible participants. During the time spent working and attending weekly meetings, I conducted participant observation. The weekly meetings have two parts. The first part has both Japanese local individuals and language-discordant individuals. They report what these language-discordant individuals have accomplished and what they will attempt in the next class time. After this, most of the language-discordant individuals leave, but some of them stay because they want to be involved with the administrative roles. In the second part of meeting, Japanese local individuals, staff members, and some language-discordant individuals discuss issues and resolutions and plans for upcoming events.

Theoretical sampling (Glaser & Strauss, 1967) and snowball sampling were adopted. In addition to participant observation in the local Japanese classroom, additional recruitment started with help from the International Promotion Center at the Aichi Prefectural University and Meijo University. To protect the private information of international students, the administrators in the International Student Service Offices sent out research advertisements and set up the interview time and location, based on the student's preferences. In the process of collecting data from several international students and a few non-students, the data suggests differences in terms of the resources that these individuals have and how these individuals attribute their adverse experiences to a lack of resources. Thus, I initially put more effort toward recruiting non-students in order to recruit an equal number of participants from student and non-student populations. Participants were asked to introduce their friends and co-workers who might participate in the research. Four non-student participants and three international student participants agreed to join the study based on this snowball sampling method. At the end of the first round of recruitment in Japan, 17 international students were interviewed (57%) and 13 non-student individuals (43%). All participants received incentives (e.g., $10 Starbucks gift card) for their participation.

The in-depth interviews were conducted, as mentioned, in order to gain insight and understanding from participants' stories based on semi-structured interview questions. Participants were asked approximately 30 questions from five categories, including their experiences in daily interactions, interactions with local individuals, comparisons of healthcare experiences in one's home and host countries, experiences in both seeking and receiving treatments, and their future perspectives toward healthcare in their host societies (see Appendix A). For achieving detail and depth in the interview structure, probing and follow-up questions were added along with main questions (Rubin & Rubin, 2012). Moreover, to ensure the narrative is “a joint production of narrator and listener” (Chase, 2005, p. 657), the number, order, and wording of the questions, including the probing and follow-up questions, were modified to align with the narratives as participants shared them.

The interview questions were prepared both in Japanese and English. The Japanese version was translated in consultation with the Institutional Review Board (IRB) in a Japanese university to ensure the questions were culturally appropriate. The interviews were conducted either in Japanese or English, based on the participants' preferences. The majority of the interviews (N=26) were conducted in public places such as a café, a restaurant, or an available classroom. Other interviews were conducted via telephone (N=4). The telephone interviews were conducted with participants recruited from an international company in Nagoya.

The priority was placed on research participants' comfort and eagerness to share their experiences in spite of the fact that the narratives might contain personal health histories. Creating a comfortable environment not only helps transform the interviewer-interviewee dyads into ones between narrator and listener (Chase, 2005), but also helps protect private information. A research assistant joined this project as an interpreter for the Chinese-speaking participants. I asked each of these participants if they wanted the interpreter during their interviews. However, all the participants chose to have the interviews in either Japanese or English (without interpreters).

Data Collection in the US

The second round of field research was conducted from May to September, 2015. Thirty individuals were recruited in Norman, Moore, and Oklahoma City in Oklahoma and Binghamton in New York, USA. In addition to these direct connections, recruitment at churches, universities, city centers, and international institutions in the areas were also contacted. Oklahoma is the 21st least populated state with foreign-born individuals. The ratio of people born outside the US is low compared to the nation-wide average (5.5% in Oklahoma while 12.9% for nation-wide average; The United States Census Bureau, 2016). Similar conditions exist in Binghamton in New York (9.5%; The United States Census Bureau, 2016). Because of these low ratios, participants recruited in these locations in the US are considered suitable for making cross-cultural comparisons with the participants recruited in Aichi prefecture, Japan. Cities in Norman, Oklahoma and Binghamton, NY, are relatively similar, in terms of host receptivity, but distinctly different in sociocultural and sociopolitical environments.

The researcher volunteered to work as a health consultant at the Center of English as a Second Language at the University of Oklahoma and some international institutions in the local area. Assisting international students as a health consultant allowed frequent informal conversations with possible participants. In the recruiting process, theoretical sampling (Glaser & Strauss, 1967) and snowball sampling were used. Among the participants recruited in Japan, the ratio of immigrant workers/trainees to international students was 13 to 17. For fair cross-cultural comparisons, the author intentionally looked for participants in the US categorically similar to those recruited in Japan, in terms of participants' age and occupations. To recruit immigrant workers, local international institutions and churches were contacted by email and human resource offices were contacted by phone to gain permission to circulate the recruitment advertisement to possible participants. With resources exhausted, the group of participants includes more international students (*N*=20) than immigrant workers and/or trainees (*N*=10), compared to the group of participants recruited in Japan (13:17). Among 30 research participants in the US, six participants were recruited through the SONA system operated by the Department of Communication at the University of Oklahoma. The SONA system is a cloud-based research and participant management system. These participants received course credit for participation (1% of their total course grade). Other participants (*N*=24) received incentives (e.g., $10 Target gift cards or Starbucks gift cards) for participation. All the interviews (*N*=30) were conducted in semi-informal locations (i.e., a café, a room in a local institution where some participants work, and an available classroom in universities) by prioritizing participants' comfort and convenience.

In-depth interviews were conducted to gain insight and understanding from participants' narratives following semi-structured interview guidelines. Based on reflections of the interviews conducted in Japan, and preliminary data analysis, the researcher integrated additional probing and follow-up questions to better identify similarities and differences between the two participant groups. Similar to the interviews in Japan, the number, the structure, and the wording of interview questions were modified to prompt the participants to share more about their experiences being explored.

The total duration of the interviews conducted in Japan is 1,360.2 (*M*= 45.3 minutes; *SD*= 19.57) and in the US is 1,684.6 (*M*= 56.2 minutes; *SD*= 20.8). All interviews were audio-recoded upon obtaining consent from the participants. Chase (2005) suggests that narrative researchers listen and find the participants' voice(s) within each narrative before attempting to locate distinct themes across interviews. Thus, the researcher listened to each interaction fully before undertaking any transcription. The audio files were transcribed verbatim. All procedures have been approved by both the University of Oklahoma IRB and Aichi Prefectural University IRB.

Informed Consent

Prior to the interview, all participants completed written consent forms. The researcher prepared the consent forms in both Japanese and English languages. The participants chose the language they preferred for the consent form and for the interview. Only a small number of participants participated in in-depth interviews using their own native language (*N*=4 in Japan; *N*=2 in the US). Thus, the researcher paraphrased portions of the consent form in order to make the language more appropriate to the participants (Koulouriotis, 2011). Of central importance in the informed consent process is to ensure that the participants understand that (a) their involvement with the study is voluntary, (b) they can withdraw from the research at any stage without penalty, (c) the information they share in the interview is confidential, and (d) the information provided by the participant will be deleted after completion of the study.

A few participants requested a written copy of the consent form in English while asking for explanations about consent form in Japanese. All participants signed the consent forms when questions were answered. Most participants had no questions about the consent form or process.

Participants

Because of the nature of the current study, the participant's language background (whether he or she is a native speaker of the dominant language used in the host society) was examined and assessed through informal interaction. Native speakers of the dominant language (i.e., English in the US; Japanese in Japan) were excluded from the study. The majority of the participants (*N*=3 in Japan; *N*=4 in the US) had previous experiences of seeing a doctor or seeking medical treatment in their host countries. To examine the barriers in various stages of health management, some participants who did not have any experience in seeing a doctor in the host countries are included in this study. The following sections address more detailed information about participants recruited both in Japan and the US.

Participants in Japan

The researcher recruited participants who live in either Japan (*N*=30) or the US (*N*=30) as immigrants or minorities with varying degrees of language barriers. The age of participants recruited in Japan ranged from 19 to 72 (*M*= 30 years; *SD*= 12.57). Twelve of them are male. Thirteen of the participants are immigrant/international workers, living in Seto (*N*=1), Toyota (*N*=8), and Nagoya (*N*=4). Seventeen are international students studying in the universities located in Nagakute (*N*=13) and Nagoya (*N*=4). The length of time that participants have lived in Japan ranged from 0.5

years to 29 years (*M*= 7.3 years; *SD*= 8.04). These individuals are from: China (8), Taiwan, (2), Vietnam (4), Mongolia (1), Indonesia (1), South Korea (1), Pakistan (1), Brazil (5), Philippines (1), Peru (1), United Kingdom (1), United States (3), and Canada (1). More detailed information about these participants is included in Table 4. The information about the participants is sorted based on the order the interviews were conducted.

Table 4: Characteristics of participants (Japan)

	Participant	Age	Years in Japan	Home Country	Ethnicity	Occupation	Language Proficiency
1	Brady*	20	7	Brazil	Mix: Portuguese x Japanese	Community interpreter	Intermediate High
2	Cara	25	2.5	China	Han Chinese	Grad student	Intermediate Mid
3	Cole	21	3	China	Han Chinese	Undergrad student	Intermediate Mid
4	Becky	46	23	Brazil	Portuguese	Company worker	Intermediate Low
5	Brianna	72	20	Brazil	Portuguese	Part-time at bento store	Novice High
6	Madison	33	3	Mongol	Mongol	Grad student	Intermediate High
7	Cindy	22	5	Chinese	Han Chinese	Undergrad student	Intermediate Mid
8	Bart	36	20	Brazil	Mix: Portuguese x Japanese	Factory worker	Intermediate Low
9	Kelsie	40	14	Korea	Korean	Grad student	Advanced Mid
10	Chance	28	4.8	China	Han Chinese	Grad student	Advanced Low
11	Vinn	20	3	Vietnam	Vietnamese	Undergrad student	Intermediate Mid
12	Vance	24	1.5	Vietnam	Vietnamese	Company intern	Novice Mid
13	Benji	57	29	Brazil	Mestizo	Worker at recycle shop	Novice Mid
14	Coretta	19	2	China	Han Chinese	Undergrad student	Intermediate Mid
15	Vincent	27	6.5	Vietnam	Vietnamese	Grad student	Advanced Low
16	Ida	20	2	Indonesia	Javanese	Undergrad student	Intermediate Mid
17	Corrie	23	6	China	Han Chinese	Undergrad student	Intermediate Mid
18	Peace	39	4	Pakistan	Hindustani	Factory worker	Intermediate Low

19	Papina	45	20	Philippines	Philippine	Company worker	Novice High
20	Paul	47	24	Peru	Non-Mestizo	Company worker	Intermediate Mid
21	Vivian	21	5	Vietnam	Vietnamese	Undergrad student	Intermediate Mid
22	Carol	23	6	China	Han Chinese	Undergrad student	Intermediate Mid
23	Traci	23	2	Taiwan	Han Chinese	Grad student	Advanced High
24	Cyndy	20	0.5	China	Han Chinese	Undergrad student	Intermediate Mid
25	Cherri	25	4	China	Hui	Grad student	Advanced High
26	Carl	40	19	Canada	Mix: Caucasian x Japanese	Language teacher	Native (English), Novice High
27	Edmond	27	5	England	Philippine	Language teacher	Native (English), Novice Mid
28	Upton	26	4.5	USA	Caucasian	Language teacher	Native (English), Novice Low
29	Ursala	24	3	USA	Caucasian	Language teacher	Native (English), Novice Low
30	Ulva	24	1	USA	Caucasian	Grad student	Native (English), Novice Low

*Names used are pseudonyms

For the purpose of reference, I included my categorization of each participant's speaking skills in the target language (Japanese in Japan) at the time of interviews: The categorizations are Advanced, Intermediate, and Novice. These categorizations are based on the American Council on the Teaching of Foreign Languages' [ACTFL] (2012) language proficiency guideline. The criteria for each categorization are included in Table 5. These three categories are also divided into three levels: High, Mid, and Low. It is important to note that the researcher used the ACTFL guideline to indicate participants' speaking skills only as a reference.

Table 5: ACTFL Language Proficiency Guideline

Advanced	Speakers at the Advanced level engage in conversation in a clearly participatory manner in order to communicate information on autobiographical topics, as well as topics of community, national, or international interest. The topics are handled concretely by means of narration and description in the major times frames of past, present, and future. These speakers can also deal with a social situation with an unexpected complication. The language of Advanced-level speakers is abundant, the oral paragraph being the measure of Advanced-level length and discourse. Advanced-level speakers have sufficient control of basic structures and generic vocabulary to be understood by native speakers of the language, including those unaccustomed to non-native speech. (p. 5)
Intermediate	Speakers at the Intermediate level are distinguished primarily by their ability to create with the language when talking about familiar topics related to their daily life. They are able to recombine learned material in order to express personal meaning. Intermediate-level speakers can ask simple questions and can handle a straightforward survival situation. They produce sentence-level language, ranging from discrete sentences to strings of sentences, typically in present time. Intermediate-level speakers are understood by interlocutors who are accustomed to dealing with non-native learners of the language. (p. 7)
Novice	Novice-level speakers can communicate short messages on highly predictable, everyday topics that affect them directly. They do so primarily through the use of isolated words and phrases that have been encountered, memorized, and recalled. Novice-level speakers may be difficult to understand even by the most sympathetic interlocutors accustomed to non-native speech. (p. 9)

When participants provided the answers in their native language, I indicated it as “native (language)” in the table and provided the speaking skills in the language of host society (i.e., Japanese in Japan) based on these participants’ self-report. Because host receptivity may vary depending on the individuals’ racial and ethnic identity (Prins & Toso, 2012), that information is included as well.

Participants in the US

The age of participants recruited in the US ranged from 20 to 47 (*M*= 28.3 years; *SD*= 8.01). Sixteen of them are male. Twenty participants are international students, living in Norman, Oklahoma (*N*=15) and Binghamton, NY (*N*=5). Ten participants are immigrant/international workers living in Norman and Oklahoma City, OK (*N*=9), and

Binghamton, NY (*N*=1). The length of time participants had lived in the US ranged from 0.5 years to 27 years (*M*=5.6 years; *SD*= 5.75). These individuals are from: China (13), Taiwan (1), South Korea (7), Japan (2), India (1), Bangladesh (1), Venezuela (2), Italy (1), Norway (1), and Vietnam (1). Similar to the group of participants recruited in Japan, the language proficiency among the participants recruited in the US is included in the table. More detailed information about these participants is included in Table 6.

Table 6: Characteristics of participants (the US)

	Participant	Age	Years in the US	Home country	Ethnicity	Occupation	Language Proficiency
1	Cadence*	47	27	China	Han Chinese	Company worker	Advanced Low
2	Jake	45	3	Japan	Japanese	Company worker	Native (Japanese), Intermediate Low
3	James	42	3	Japan	Japanese	Company worker	Native (Japanese), Intermediate Mid
4	Karen	22	12	Korea	Korean	Company worker	Advanced High
5	Ken	22	5	Korea	Korean	Undergrad student	Intermediate High
6	Kandy	25	7	Korea	Korean	Domestic help	Intermediate Mid
7	Kedric	35	8	Korea	Korean	Pastor	Intermediate Mid
8	Knight	33	10	Korea	Korean	Company worker	Intermediate Mid
9	Kingston	27	8	Korea	Korean	Grad student	Advanced Low
10	Kimberly	31	13	Korea	Korean	Domestic help	Intermediate High
11	Callie	25	4	China	Han Chinese	Grad student	Intermediate High
12	Charles	30	7	China	Han Chinese	Assistant professor	Advanced Low
13	Chaz	29	7	China	Han Chinese	Grad student	Intermediate High
14	Clay	26	4	China	Han Chinese	Grad student	Intermediate Mid
15	Clifford	31	8	China	Han Chinese	Grad student	Advanced Low
16	Candie	26	4	China	Han Chinese	Grad student	Intermediate Mid
17	Isabelle	45	8	Italy	Italian	Grad student	Advanced Mid
18	Vallen	42	2	Venezuela	Mestizo	Grad student	Intermediate Mid
19	Claudia	27	5	China	Han Chinese	Grad student	Intermediate High
20	Virginia	25	5	Venezuela	Mestizo	Grad student	Intermediate High

21	Colby	29	4	China	Han Chinese	Grad student	Intermediate High
22	Brent	28	2	Bangladesh	Biharis	Grad Student	Intermediate High
23	Irinia	23	0.5	India	Biharis	Physical Therapist	Intermediate Mid
24	Valerie	20	2	Vietnam	Vietnamese	Undergrad student	Intermediate Mid
25	Cooper	21	3	China	Han Chinese	Undergrad student	Intermediate Low
26	Taylor	24	2.5	Taiwan	Han Chinese	Undergrad student	Intermediate Mid
27	Chase	23	2	Chinese	Han Chinese	Undergrad student	Intermediate Low
28	Corwin	20	0.5	Chinese	Han Chinese	Undergrad student	Novice High
29	Cherisa	21	1	Chinese	Han Chinese	Undergrad student	Novice High
30	Nick	22	1	Norway	Norwegian	Undergrad student	Intermediate High

*Names used are pseudonyms

Participant's pseudonyms start with the first letter of his/her home country (e.g., Carrie, if the participant is from China; Brian if the participant is from Brazil). NAME^{J} indicates that these participants were recruited in Japan, while NAME^{US} represents that the participants were recruited in the US. Moreover, by adding superscript numbers, the number of years that individuals have lived in their host countries has been added. (e.g., "Cindy$^{J;5}$" indicates an individual, from China who has lived in Japan for 5 years).

Data Analysis

Narrative Approach

Researchers who are interested in understanding human experiences often employ the narrative approach because it assumes that human beings make sense of the world and their experiences fundamentally through storytelling (Fisher, 1987). It is primarily because these researchers hold shared assumptions that narratives are a form of social action and storytelling is one of the core part of individuals' life experiences and in understanding those experiences (Bruner, 1991; Chase, 2005; Riessman, 2008). Narratives function as a primary vehicle through which we deepen our understandings of the ways individuals experience everyday life (Sandelowski, 1991) including illnesses (Frank, 1998; Kleinman, 1980) and how we cope with other critical life events (Riessman, 1990). Rather than merely what was said, narrative researchers focus on (a) how individuals talk about their experiences and (b) how these individuals construct their self-images within the narratives (Hydén, 1997). By examining written and oral stories, researchers using the narrative approach can explore the ways individuals tell stories (i.e., the use of language to express feelings, emotions, thoughts, and interpretations), to whom the stories are told, how interrelationships with the listeners (i.e., interviewers) influence what stories are about and how they are narrated, and why the narrators are telling the stories in any given situation (Bruner, 1984; Riessman, 2008).

Drawing inspiration from the feminist approach, the current study positions immigrants and minorities with language barriers—the people in the marginalized and previously silenced population—as social actors in their own right. The narrative approach is used for many reasons. It helps researchers to (a) identify the meanings that individuals assign to their experiences and specific conditions, (b) examine language barriers in healthcare settings from patients' perspectives, and (c) investigate influences of sociocultural and sociopolitical environments to participants' experiences in health management.

Personal narratives not only shape past events, they also reflect an individual's construction of events in the future (Chase, 2005). Examining personal narratives allows researchers to uncover meanings that individuals assign to events and conditions (Mishler, 1990; Polkinghorne, 1988). Through storytelling, individuals co-construct narratives by interpreting events and conditions, assigning meanings, and re-presenting their worldviews (Bruner, 1984; Bruner, 1991). Thus, stories are co-constructed representations of experience, rather than the experiences themselves (Cho & Trent, 2006; Sandelowski, 1991). The meanings participants attach to events and conditions carry more significance than whether the mundane features of the descriptions are factually accurate or not (Riessman, 2008). In other words, the focus of this study is not what actually happened. Rather, it is what the happening meant from the participants' perspectives. Narratives play a role of mediating the boundaries between unknown/unexplained experiences and the sensible experiences (Mishler, 1984). Thus, the narratives help researchers organize "seemingly meaningless events into larger, meaningful structures that are symbolically represented as stories" (Eggly, 2002, p. 342).

Narratives offer a multiplicity of phenomena. Even when individuals experience the same phenomena, narratives convey the meanings, implications, and interpretations of these phenomena differently (Howard, 1991). Individuals experience events in specific contexts and social structures, which makes personal narratives inseparable from public phenomena. A *narrative* also reflects individual's views of culture and living environments as a set of "shared organization of ideas that includes the intellectual, moral, and aesthetic standards prevalent in a community and the meanings of communicative actions" (LeVine, 1984, p. 67). Therefore, the narrative approach is clearly important in examining the ways language barriers contribute to health disparities in two different social structures, specifically Japan and the US.

This study is an examination of narratives from individuals with language barriers who illustrate (a) the ways a lack of language proficiency influences the experience of receiving medical treatment in the host country, and (b) the ways these individuals manage their health in the host country while facing difficulties in obtaining, understanding, and utilizing information related to healthcare. In addition, the current research examines (c) ways various living environments contribute to challenges for individuals with language barriers. As members of marginalized populations, the voices of individuals with language barriers' are frequently less valued or even disregarded in their host societies. Examining narratives from members of these marginalized populations enables the researcher to shed new light on the phenomena, by making attempts to understand how the contexts of social and cultural norms influence these individuals' interpretations of their experiences, specifically the possible healthcare barriers they face in host countries. Along with the narrative approach, constructive grounded theory (Charmaz, 2006) is employed for data analysis, as described in the next section.

Constructivist Grounded Theory

Grounded theory helps researchers develop theories about psychological and social processes (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1990). The current study employs the combination of the narrative approach and constructivist grounded theory (Charmaz, 2006) for data collecting and data analyzing methods. The following sections address the compatibility and appropriateness of these approaches for use in this examination.

From historical, methodological perspectives, the grounded theory approach (Glaser & Strauss, 1967) is not compatible with narrative inquiry in that these methodologies originate from two divergent paradigms: Narrative inquiry is located within constructivism/post-modernism, while grounded theory (Glaser & Strauss, 1967) is located within post-positivism (Lal, Suto, & Ungar, 2012). The ontological and epistemological background of grounded theory (Glaser & Strauss, 1967) aligns with the post-positivistic paradigm. However, it is not solely a post-positivistic approach because grounded theory (Glaser & Strauss, 1967) is influenced by symbolic interactionism and the Chicago School of Sociology (Bryant & Charmaz, 2007). Constructivist perspectives in grounded theory emerged when (Strauss & Corbin, 1990) implicitly addressed the interactive nature of researcher-participant relationships (Mills, Bonner, & Francis, 2006).

Charmaz (2000, 2006) presented constructivist grounded theory by explicitly questioning the assumptions attached to grounded theory (Glaser & Strauss, 1967): In grounded theory (Glaser & Strauss, 1967) researchers (a) take a separate, unbiased, and unobtrusive role in the process of collecting and analyzing data and (b) focus on what participants said and did, rather than what their words and actions mean (i.e., how it is said and how individuals behaved; Charmaz, 2006). Constructivist grounded theorists assume that researchers develop interactive partnerships with their participants in the research process (Charmaz, 2006). During the interviews, for example, researchers participate in the process of co-constructing meanings of the participants' experiences, and researchers aim toward interpretive understandings of participants' subjective meanings. These researchers (the viewers) co-create the data and ensure the analysis through interactions with participants (the viewed). Data does not provide a window on the reality that the researchers are interested in studying (Charmaz, 2000). Rather, through interactive and reflective stages, the researchers ultimately re-construct the participants' narratives into a theory that is grounded (Mills et al., 2006). This co-construction of meanings makes constructivist grounded theory (Charmaz, 2006) theoretically compatible with the narrative approach (Connelly & Clandinin, 2006; Fisher, 1987; Lal et al., 2012).

The narrative approach (Fisher, 1987) and constructivist grounded theory (Charmaz, 2006) complement each other (Lal et al., 2012). Benefits of inquiring about individuals' lived experiences and their perspectives through narratives is powerful; the narrative approach is limited in that researchers are interested in enriching their understanding of the phenomena by theorizing and categorizing the dynamic nature of lived experiences (Brown, 2006). Combining the narrative approach with constructivist grounded theory (Charmaz, 2006) allows researchers to examine individuals' experiences and processes of illness and health management while addressing shared aspects of these experiences across a group of individuals (Lal et al., 2012). On the other hand, grounded theory (Charmaz, 2006) guides researchers to engage with coding processes. These coding processes can make the narratives appear fragmented when categorized into possible themes. The narrative approach also involves a coding process. However, researchers using the narrative approach reduce the possible fragmentation because they code narratives while putting more emphasis on the context and the interrelationships with narratives (Connelly & Clandinin, 2006). Thus, researchers who employ grounded theory are often motivated to incorporate narrative approaches to reduce the "consequent loss of participant stories" (Lal et al., 2012, p. 14). By combining these two approaches, researchers not only reduce the impacts of methodological limitations, but also harness the strengths of each approach.

Constant Comparative Analysis

All interviews (*N*=60) were transcribed verbatim in the language in which they were conducted. Of the interviews conducted in Japan, 25 were in Japanese, four were conducted in English, and one interaction involved the use of both Japanese and English interchangeably. In the US, 28 interviews were conducted in English and two in Japanese. The interviews were transcribed and coded (initial coding; Charmaz, 2006) during the time the researcher was collecting data, allowing the researcher to use preliminary analyses for directing further data gathering activities (theoretical sampling; Charmaz, 2006; Glaser & Strauss, 1967). Participants' names, locations, and other personally identifiable information were de-identified. To ensure accuracy, transcripts were reviewed and compared with the corresponding audio files. The researcher conducted continual comparative analysis before translating the Japanese transcripts into English because translation processes, even done by professionals, can affect the nature of qualitative data analysis and interpretation (Squires, 2009).

The data and fieldnotes were organized and analyzed using the constructionist approach to grounded theory (Charmaz, 2006) and NVivo 10, a software that assists qualitative and mixed methods research. The researcher read the data and fieldnotes line-by-line and listened to the audio. Following the research questions, initial coding was conducted to identify the occasions when participants' stories indicated problems in managing health. Because "the goal is to remain open to all possible theoretical directions indicated by [researchers'] readings of the data" (Charmaz, 2006, p. 46), the researcher coded the occasions when direct connections to language barriers were not apparent. To keep the sense of social interaction and process, each segment was coded as an action by applying gerunds (i.e., "explaining the resistance" and "feeling treated as a foreigner"). When conducting line-by-line coding, the researcher remained open to new ideas and specifically focused on identifying participants' tacit assumptions about language barriers. Instead of merely accepting what the participants said, line-by-line coding raised questions and provided insight about the participants and the data.

Each coding was compared to ensure that each category reflected a specific, single action emerging in a given context while avoiding ambiguous language (i.e., facing barriers). As the coding proceeded, comparisons were made within and among interviews. For example, the code "feeling treated as a foreigner" emerged from some interview transcripts, and it was compared with "feeling non-existing." Although they both indicate a sense of isolation, they should be coded differently in that the *meanings* attached to the incidents are different. It is also the case that for some incidents, the participants' perceptions do not fit with the researcher's understanding of the data. For example, some participants explicitly denied the relationships between the challenges they encountered in healthcare settings and their language skills. They said, "I don't think this is because of language barriers, but…" These comments were coded because the "ideas may rest on covert meanings and actions that have not entirely surfaced yet" (Charmaz, 2006, p. 54).

The next stage in the constructivist grounding theory/narrative approach process is focused coding. The process of focused coding "requires decisions about which initial codes make the most analytic sense to categorize your data incisively and completely" (Charmaz, 2006, p. 58). The codes created during initial coding contain incidents in which language barriers are discussed both explicitly and implicitly. The codes were compared and similarities and differences among categories were examined. To address the research questions, two phases of data analysis were conducted. The first phase addressed the first research question: "How do language barriers create challenges in the access and process of healthcare?" The codes were first divided into different phases of health care: (a) before visiting the healthcare institution: access barriers, (b) inside the healthcare institution: challenges within patient-provider interactions, and (c) after visiting the healthcare institution: challenges in adhering to recommended treatment. The codes were compared and analyzed in order to develop salient categories to explain the ways language barriers are related to challenges that language-discordant patients face in managing their health.

The second phase addresses the second and third research questions: "In what ways do language barriers entail different meanings and functions in healthcare settings in Japan and the US?" and "In what ways do the differences in meanings and functions of language barriers impact the quality of care?" When comparing codes in this second phase of analysis, the focus was on the meanings (i.e., language barriers as communicative obstacles or linguistic markers) and functions (i.e., language barriers functioning in creating psychological barriers) of language barriers rather than when and where the incidents happened (i.e., in accessing healthcare or within patient-provider interactions). Next, a code-by-code comparison was conducted in order to develop prominent categories to identify meanings and functions of language barriers. After developing categories, additional comparisons were made among the categories developed in analyzing the Japanese context and those from the US context and differences and similarities were examined.

After identifying the themes and subthemes, the researcher re-read the entire set of interview data to ensure that no data related to research questions was missed. Finally, the researcher chose excerpts for each theme and subtheme, and translated them into English when necessary. It is important to note that the categories were not based on the frequency of the incidents (Wierzbicka, 1997); rather they were based on the interpretations of the incidents that signify (a) the ways language barriers influence language-discordant patients' experiences in health management and (b) the meanings and functions of language barriers in healthcare settings.

It is also important to point out that the researcher is a native speaker of Japanese, holding a bachelor's degree in British and American Studies from a Japanese university. She has also worked as an interpreter for Chunichi Shimbum (中日新聞), a major news organization in Japan.

Verification

Qualitative researchers can establish validity of their studies by determining the degree to which their findings and interpretations are accurate from the perspectives of the participants, the researcher(s) themselves, and the readers of an account (Creswell & Miller, 2000). To increase validity of this qualitative research, two of eight strategies that Creswell (2014) suggests have been used: Member checking and thick description.

Member checking, also known as *member checks* (Lincoln & Guba, 1985), refers to the verification technique with which researchers take “findings back to the field and [determine] whether the participants recognize them as true or accurate” (Lindlof & Taylor, 2011, p. 279). Of the available techniques used to increase validity of qualitative research, Lincoln and Guba (1985) recommend member checking as “the most crucial technique for establishing credibility” (p. 314). After developing the themes and subthemes, six participants were recruited for member checking to ensure the themes and subthemes reflected the participants’ reality. Through member checking, misunderstandings can be “adjusted and thus fixed” (Cho & Trent, 2006, p. 322). Participants recruited in Japan (N=3) were engaged via telephone, and the US participants US (N=3) were engaged in person. Based on the feedback, two subcategories, “stigma toward language discordant patients” and “face threats for desired identity,” were combined as “stigma and face threats to desired identity performance.” The themes and subthemes were re-organized accordingly.

Clifford Geertz (1973) described *thick description* as useful in increasing the validity of qualitative research. Producing thick descriptions of performances and the perspectives of the participants under study (e.g., how significant some events are for the participants) allows the readers to judge the trustworthiness and transferability of the findings. The descriptions must include and specify everything necessary for the readers to understand the findings and interpretations (Lincoln & Guba, 1985). Because *who* said *what* in *what ways* carry significance in identifying cultural and ritual practices, *thick description* requires researchers provide verbatim quotations from the interview data (Myers & Newman, 2007). In the following chapter the findings and interpretations with quotations as supporting data are presented. The transcribed interviews conducted in English show the exact words used by the participants. For the interviews conducted in Japanese, the verbatim transcript is used to keep the ways these participants shared their experiences.

CHAPTER FOUR: RESULTS

This chapter provides a detailed description of the ways language barriers create challenges to individuals' quality of healthcare. Three research questions are posed:

RQ 1: How do language barriers create challenges in the access and process of healthcare?

RQ 2: In what ways do language barriers entail different meanings and functions in healthcare settings in Japan and the US?

RQ 3: In what ways do the differences in meanings and functions of language barriers impact the quality of care?

Following the framework developed through grounded theory, I discuss the emergent categories for drawing pathways that contribute to health disparities in three sections: First is an examination of the challenges that individuals with language barriers experience in accessing healthcare. Participants' stories describe how (a) these individuals understand the procedure to access healthcare, (b) they evaluate the meanings and influences of language barriers, and (c) they make decisions about whether or not to access healthcare in their host societies. The second section includes the ways language barriers create challenges in the process of receiving healthcare. Participants' narratives explain (a) how they perceive their language proficiency in language-discordant clinician-patient interactions, and (b) how their expectations attached to language use influence their experiences in the healthcare system. The third section includes the ways language barriers create challenges in following suggested treatments or health practices. Participants' narratives depict how language barriers negatively affect the ability to follow medical instructions. In each section, the distinct meanings and functions of language barriers are addressed as well as the ways these distinct meanings and functions of language barriers impact the quality of care. Table 7 provides a summary of findings, including a list of themes, and subthemes. Each theme is described in detail below. While these themes are conceptually distinct, they are not mutually exclusive.

Table 7: The ways influencing the impact of language barriers in healthcare settings

	Challenges in	Corresponding dimensions
Barriers in Accessing Healthcare	Utilizing resources for receiving emergency treatments	Misinformation about healthcare access in the host society
		Lack of knowledge about local procedures
	Managing identities and social relationship in host societies	Imposed and increased burdens within the social network
		Stigma and face threats to desired identity performance
Barriers within Healthcare System	Asserting desirable identities	Identities as polite, agreeable patients
		Identities as active, engaging patients
		Identities as respected, independent patients
	Exchanging information	Confounding nature of language use
		Relationship between sociolinguistic skills and language proficiency
		Interaction in unfamiliar contexts
		Normative practice in home countries
	Building and strengthening relationships	Exclusion from conversations
		Perceived alienation in interpersonal interactions

Language Barriers in Accessing Healthcare

In the narratives, participants highlight their awareness of their symptoms and concerns and/or hesitations about accessing healthcare. Participants' narratives also illustrate that language barriers create challenges in (a) utilizing resources for receiving emergency treatments, and (b) managing identities and social relationships in host societies.

Utilizing Resources for Receiving Emergency Treatments

Some participants expressed hesitation in accessing healthcare in their host societies in several ways. Their perceptions about health and hospitals influence their decision-making processes, including whether or not they should try to access healthcare, when to seek treatment, and how to go about it. For example, when asked if he had ever hesitated to see a doctor, Carl$^{J;19}$ answered, "I'm just the person who doesn't go to hospitals no matter when it's in Japan or Canada. I just don't go to hospitals unless I am bleeding or dying." Karen$^{US;14}$ echoed, "I'm young, so it's not like very necessary [to see a doctor regularly]." Cara$^{J;2.5}$ said,

> For me, visiting hospitals in China entails scary and sad meanings; maybe it's because it reminds me of the day my grandfather passed away. But hospitals/clinics in Japan are like convenience stores. People go there all the time and get service quickly. It's not scary at all. (Cara$^{J;2.5}$)

By drawing an analogy between clinics and convenient stores in Japan, which is clean, small store; somewhat in between CVS and a store attached to a gas station in the US, Cara$^{J;2.5}$ emphasized the easiness in accessing healthcare. On the other hand, some participants' narratives illustrated that they perceive language barriers as factors preventing or delaying access to healthcare: They do not or cannot access healthcare in part due to their (a) misinformation about healthcare access in the host society and (b) lack of knowledge about local procedures.

Misinformation about healthcare access in the host society.

Perceptions and knowledge about healthcare in one's host society are formed, shifted, and negotiated through social interaction. Participants in this study recruited from both countries reported that they often interact in their native languages except for time spent at work and school. Their narratives emphasize a sense of comfort and harmony while interacting with the people in their close network, those with whom they share linguistic and cultural backgrounds. By identifying his roommates and people in the Korean church as his primary network, Ken$^{US;5}$ commented, "I think I should speak more in English, but my roommates are Korean. It's kind of awkward to speak with them in English anyway." Some said that they rarely use the target language (i.e., English in the US; Japanese in Japan) in their daily interaction. Brianna$^{J;20}$ said, "I speak in Japanese only when I interact with my manager at work. Customers are all Brazilians, speaking Portuguese."

When learning about new healthcare systems, participants explained it was more convenient to use their native language when looking for ways to initiate medical treatment. These individuals navigate the medical systems based on information obtained from their own networks. Callie$^{US;4}$ reflected, "I basically chat online, using Chinese, and chat and type the symptoms to find out what I should do. It's easy and fast." Vallen$^{US;2}$, referring to his doctor in Venezuela, said, "We had Whatsapp [a software similar to Skype] with the doctor. From here, we can call a doctor. 'Doctor, our daughter is like 37 degrees Celsius. What do you recommend?’ It's like a friend, like a friend.” Such interactions are helpful when evaluating various suggested treatments and when preparing to access healthcare in their host societies. However, when information is inaccurate, these strategies may inhibit individuals from visiting medical professionals when they are ill or injured.

Participants hesitate to visit hospitals and clinics frequently due to their own negative experiences, but also from opinions shared by others. Participants and people in their social networks tend to share multiple health determinants (e.g., socioeconomic status, citizenship, race/ethnicity, as well as language proficiency), which influences the available resources, possible treatments, and overall experiences in healthcare. Given these shared health determinants, individuals easily apply these narratives to their own lives. Moreover, because negative experiences are eagerly shared and popularized in their social networks, interactions with peers contribute to building negative perceptions about healthcare systems in the host society. Negative experiences shared by people within their own networks can be regarded as more trustworthy than what outsiders say (e.g., ties among people with in-group status), contributing to increased resistance to accessing healthcare systems. Participants who hesitate to go to hospitals said, “I will go to see a doctor if I am dying” (Brent$^{US;2}$), and “If I am bleeding heavily, like, maybe with a car accident or something like that, I’d have to go [to the hospital]” (Kingston$^{US;8}$).

The most commonly shared concerns among the participants recruited in the US are about high medical expenses, prolonged waiting time, and effectiveness of medical treatment. Twenty-eight of 30 participants recruited in the US mentioned that they hesitate to see a doctor because of the possible medical expenses. Participants who had spent a relatively short period of time in the host culture often echoed information gathered from people within their close social networks; the effects of this "information" on healthcare decisions can be significant especially when these individuals are new to the society. Nick$^{US;1}$ reported his perceptions about healthcare systems in the US by saying,

> I would have to like sign twenty papers before they would, like, take out the bullet in my, like in, ahhh…, you know what I mean? Like if you were shot, they would like make you sign that you were going to pay them twenty thousand dollars before they could help you, you know? That is how America works. It's not like, it's not first come first served, it's more like first pay first served. That is what I've been told all the time. (Nick$^{US;1}$)

Fortunately, Nick$^{US;1}$ has not experienced a major health issue yet. However, such a perception can prevent individuals from accessing healthcare even when they may have symptoms of a serious medical problem. Taylor$^{US;2.5}$ expressed his concerns. "Everyone said that seeing a doctor in the US is extremely expensive. So I haven't visited a doctor. I don't want to go. I don't have money." Based on what he has heard from his friends, Taylor$^{US;2.5}$ said that seeing a doctor for 10 minutes can cost a couple of thousand dollars even when the person has health insurance. He knows that he has health insurance because it is included in the school expenses as a requirement for all international students. Without knowing exactly how his health insurance works, his fears about possible expenses stopped him from seeing a general doctor even when he experienced continual coughing for a month. Not having visited a doctor since the time he took a mandatory health check at school health center, Chase$^{US;2}$ echoed, “My parents already spent a lot of money to send me here. I don’t want to put too much burden on them. If it’s something small, I don’t want to go to [a] hospital.” Expressing his concerns about the complexity in healthcare systems, Clifford$^{US;8}$ said, “I would go [to see a doctor] more often if I knew how things work.” Clifford$^{US;8}$ continued,

> I don’t know what I … need to do, and I know that sometimes the bill is very expensive…one of my friends told me she got a cold, and she went into the hospital. After that she received a bill which cost her like, several thousands…. Actually, most of that was covered by the insurance, but still, the bill makes you feel… I don’t know how to deal with that. (Clifford$^{US;8}$)

In addition to the possible expenses, many participants recruited in the US shared their concerns about prolonged waiting time (e.g., two weeks) for receiving treatment. Cooper$^{US;3}$ said, “We have to wait for a long time for my appointment. In China I only have to wait like [a] half hour or an hour.” Ken$^{US;5}$ expressed his frustration,

> We don’t know when we will be sick, right? We become sick so suddenly, but we need to make an appointment for the sickness to be treated. My American friends said that I could express the urgent nature of my symptoms to get an appointment on the same day or the next day. But when I called them, I was just told to go to the ER.” (Ken$^{US;5}$)

Ken$^{US;5}$’s language proficiency did not allow him to communicate the nuance that he needs to see a doctor sooner (than two weeks) but not urgent enough to go to the ER.

Such shared negative perceptions about healthcare systems in the host country can encourage self-treatment.

Being informed about these concerns from the people in his social network, Clay$^{US;4}$ prepared himself for sudden physical ailments or injuries by bringing a variety of medicines from China and practicing traditional Chinese medicine (known as *Five Elements*: 木 [wood], 火 [fire], 土 [earth], 金 [gold/ metal], 水 [water]; these elements explain interaction among internal organs). Drawing a diagram, Clay$^{US;4}$ explained,

> So, this gold represents your lung. Wood is liver. Water is kidney. Fire is heart and the earth is your stomach, digestive one. So, it’s a different theoretical system, and I learned that by myself and found it kind of useful to keep myself healthy. I haven’t visited a hospital in the US yet. But I heard that the waiting time is really long here, so I brought all kinds of medicine from China. I know which medicine to take for specific symptoms. (Clay$^{US;4}$)

When asked what he would do if these Chinese medicines did not cure the symptoms, Clay$^{US;4}$ answered, “I may have to go to the ER because I don’t want my symptoms to be too serious, but I also heard that it’s extremely expensive.” Colby$^{US;4}$ agreed:

> I would try the medicine I brought from China first. It’s faster than seeing a doctor. I have a lot of medicines in my apartment. We often ask each other to bring back some Chinese medicines when friends go back to China for vacation. And we can consult one another [about] what works on which symptoms. We always help each other. I would go to see a doctor when these medicines don’t work. (Colby$^{US;4}$)

In addition to the concerns about prolonged waiting time and sky-high medical expenses, some of the participants shared their distrust toward the effectiveness of medical treatments in their host country. Claudia$^{US;5}$ said,

> I like the service, like the overall system and the ways they do, I really like it. But the medicine is not. I got severe stomachache when I was taking medicine from [the Health Center]. Like my situation is… my body really needs Chinese medicine. Some of my friends had the same problem. (Claudia$^{US;5}$)

Hearing what other people experienced also provided Claudia$^{US;5}$ an opportunity to confirm that her perception was right. Claudia$^{US;5}$ commented, “I usually recommend my friends … take Chinese medicine before going to see a doctor. If they can avoid what I experienced, that’s good, right?”

Even when individuals have relatively positive perceptions about healthcare systems in the host society, hearing negative experiences from people in their networks can prompt questioning of previous experiences. Callie$^{US;4}$ noted that she had positive experiences with her healthcare providers. However, she increased her hesitation to visit hospitals/clinics because of what she heard from her Chinese friends. Referring to a friend’s experience at a local clinic, Callie$^{US;4}$ reflected,

> He believes … it’s a big problem. He can’t study. He went to the hospital in the school, because that is the nearest…the doctor did a very roughly checkup, and said, “Yeah, you are okay. You probably just got a cold or something.” And the doctor gave him painkillers. I don’t think it’s helpful on the headache. Headache must be caused by some particular reasons…. [the medicine will] probably give you [some temporary relief], but after that, the painkiller, like, is gone, the effect

> is gone. You, your headache [it] comes again. Many examples like this, hmm…when he told me that case, I hesitate [to see a medical professional]. (Callie$^{US;4}$)

Narratives from the US-based participants illustrate that shared negative experiences can increase hesitation to access healthcare, and may encourage self-treatment, instead of being examined by a medical practitioner in their host society.

Among the participants recruited in Japan, slightly different concerns were shared. The predominant concern for this group is the ineffectiveness and less individualization for prescribed medicines. Similar to the participants recruited in the US, some of the participants recruited in Japan also engage in self-treatment by bringing various medicines from their home countries. For example, Traci$^{J;2}$ commented, "Japanese medicines are sometimes not working well, I would say. So when I went back home, I visited a large hospital in Taiwan and got various medicines prescribed." In addition, some participants share prescribed medicines based on the belief that everyone eventually gets prescribed the same medicine. Becky$^{J;23}$ said,

> I had…allergies for a whole year. I went to see a doctor and told him that I have been having a little bit of fever, a bad cough, and pain in the throat. He roughly checked these symptoms and said, "It's an allergy." But after passing the allergy season, in summer, when I got the same symptoms, he said, "It's a stomach flu" and sometimes "It's a cold in the chest." That's all what he said. We are kind of confused. I don't know, but we always get the same medicine. We don't know why we got [that prescription]. We don't know what [it is]. All we know is it's for reducing fever, or for throat. We take these medicines and go to work. When

> I asked where other people go for these symptoms, people usually identify the same place. Well, a lot of us don’t understand Japanese, and the large [hospital] nearby has two interpreters. I guess, that’s why we all go there, but we found that we are always told the same things. We take the same medicines. So if someone doesn’t feel well at work, we just share the medicines we have. Even if they go to see doctors, they … get prescribed the same medicines. (Becky$^{J;23}$)

In addition to the perceived difficulties with language barriers in initiating a hospital visit and obtaining medical treatment, the perception that prescribed medicines are not individualized invites the participants to share medicines without consulting a medical professional. As described in these narratives, perceptions about the inadequacy of treatments reduces the perceived significance of medical treatment in the host society. This, in turn, contributes to discouragement on the part of immigrants when they contemplate healthcare options.

Lack of knowledge about local procedures.

While many participants shared their concerns about their language skills in communicating with medical providers, they also noted that these concerns do not always prevent them from seeking medical treatment. Carl$^{J;19}$ said, “I know there are a couple of hospitals… maybe they are clinics, close to my home and work. I know where I should go when needed.” When asked how he would figure out which hospitals or clinics to visit for specialists’ help, Chance$^{J;4.8}$ answered with a soft laugh, “I don’t know. That’s why I go to a large hospital. If the building is large, they should have many doctors with different specialties. Someone in the hospital should be able to take care of me.” Cherisa$^{US;1}$ said, “I know that building is a school health center, so I would go there if I needed something. All people here are very nice. People here help me well when I don’t know what to say.”

When it comes to an emergency, however, unexpected waiting time could be troublesome and life-threatening, and knowing the locations of hospitals and/or clinics is not adequate enough to utilize resources in a timely manner *in Japan*. Many participants recruited in Japan shared the barriers they experienced, particularly with the ways to use ambulances. Papina$^{J;20}$ shared her experience of being involved in a car accident right after she came to Japan. When asked about the worst part of the experience, she frowned and reflected,

> After I came to Japan, I had a car accident. I drove to the hospital by myself. The other driver fled. The other driver…. So, there is no one who could call 119 and the police for me. The other driver fled and I was alone… [When I arrived at the hospital,] they said, “Not today. Come back tomorrow morning. Not tonight. You are okay today.” They said it’s because I didn’t come in an ambulance. (Papina$^{J;20}$)

Papina$^{J;20}$ did not feel confident to call 119, which is an equivalent to 911 in the US, by herself. Thus, she drove to the hospital by herself, believing that she would be able to see a doctor once she got there. Ida$^{J;2}$'s narrative supported Papina$^{J;20}$’s decision to drive to the hospital. Remembering the time when she accompanied her friend to a hospital in an ambulance, Ida$^{J;2}$ stated, “I was surprised. The Japanese ambulance came so quickly! In my country [Indonesia], it’s faster to go to hospitals by ourselves compared to calling an ambulance. And we’d have to pay for it.” Given the possibility that calling for an ambulance can take longer, with the expected difficulties in communicating the request for an ambulance, Ida$^{J;2}$'s notion highlights the urgent nature of Papina$^{J;20}$'s case. Similarly, Ulva$^{J;1}$ shared her experience of a traffic accident. Predominantly speaking English both for her school and private life, Ulva$^{J;1}$ evaluated her Japanese language proficiency by saying, "my Japanese is not good at all. I can chat, but I do all the other important things in English." She rode a bicycle to a hospital after she and her bike were hit by a car. Ulva$^{J;1}$ said,

> I didn't come in an ambulance. It's how I understood it. So this…it wasn't an emergency to them. Because… well, you have people [who] go into the emergency room when it's not an emergency. I…I should have taken the ambulance; I totally regretted it, but I didn't know who was paying for it. I didn't know how expensive an ambulance would be because it's expensive in the US. (Ulva$^{J;1}$)

Ulva$^{J;1}$'s concerns about possible expenses along with her lack of adequate language proficiency to provide necessary information encouraged her to ride her bike to the hospital, instead of calling 119 either to actually ride in an ambulance or to inquire about pricing. Not knowing how the local system works, Ulva$^{J;1}$ waited an entire day to receive treatment when she was bleeding. As Carl$^{J;19}$ and Cherisa$^{US;1}$ noted previously, getting to hospitals can be achieved in many different ways (e.g., drive, take a taxi, walk, etc.) without requiring specific language skills. However, a lack of knowledge that being carried by an ambulance is an essential requirement for receiving treatments in the ER in Japan prevents individuals from accessing timely treatment.

In the US, on the other hand, participants did not encounter the same barriers when accessing an ER. As Nick$^{US;1}$ described, "They would take care of me good, as long as you can [get] yourself … in front of them." All the US participants who made attempts to visit the ER were treated on the same day, however, some of the participants experienced long waiting times after they got to the ER, in part because they did not know how to express the urgent nature of their symptoms. Kimberly$^{US;13}$ said,

> When I was waiting there [at the ER waiting room], my treatment was pushed back a couple of times and other people were put into the room faster than me because they were bleeding. Their cases were more urgent. I thought mine was pretty urgent, well, that's the reason why I went to the ER, but I couldn't tell [them]. (Kimberly$^{US;13}$)

Valerie$^{US;2}$ shared her experience with the ER with frustration.

> I didn't understand at that time, I don't know why, I guess like, I think emergency didn't mean you were pushed in to a room immediately… everybody is just like emergency case. When I come to the emergency [room], there were a lot of people there and I sat and waited for almost 2 hours to get the treatment. I'm not like walking in to see the doctor in the urgent care or something. It's the emergency room! (Valerie$^{US;2}$)

Their symptoms were not as visible as bleeding, so they needed to strategically express the urgent nature of their symptoms to receive prompt treatment. Despite these frustrations related to waiting time at the ER, all participants recruited in the US were treated when they visited the ER.

Managing Identities and Relationships in Host Society

When individuals are managing their health, they encounter concurrent challenges in managing their identities and interpersonal relationships (Charmaz, 1991;

Goldsmith, 2004). The participants in this study suggest that language barriers influence their willingness to seek treatment and the ways they perceive accessibility of healthcare systems. Participants explained hesitation in seeing a doctor based on their direct experience, (mis)information from their social networks, and/or predicted consequences. Language barriers create challenges, at least in part because these individuals *perceive* language barriers (a) impose and increase burdens within social networks, and (b) create stigma and face threats to desired identity performance.

Imposed and increased burdens within the social network.

Participants often described people in their social networks as important resources for managing their physical and psychological health. Therefore, they continually shared their appreciation for the help they have received and their concerns about the possible burdens they have imposed on people in their social network. Although not always explicitly expressed, participants' narratives depicted two types of challenges in managing interpersonal relationships in their social networks. The first is when participants receive help when accessing healthcare. The second is when participants help other people access healthcare because the participant's language skills are better.

Participants recruited in Japan identified the office hours for hospitals and/or clinics as one of the predominant challenges for them to make arrangements when they need help in accessing healthcare. Hospitals and clinics in Japan, especially privately owned ones, are open at certain times on weekdays (i.e., 8:00am-12:00pm and 15:00pm-18:00pm). These office hours are not ideal for working individuals. Papina[J;20], who works full time while raising three children, commented, "They are not that flexible. If we get there at 12:05pm, it's not acceptable. They are not open during lunchtime. When I asked them to let us check in, I was told, 'Please go to the ER then'." Moreover, estimating the time to visit hospitals and clinics is also identified as a challenge because of the prolonged time spent in the waiting room. Expressing his frustration, Chance$^{J;4.8}$ said,

> I made an appointment, like three weeks ahead, but I still had to wait close to an hour before getting to see the doctor there. There are a lot of elderly people chatting with doctors. They may be lonely, needing someone to talk with. I understand it, but…it takes just too long. With the waiting time before seeing a doctor, I cannot tell when my visit would end. (Chance$^{J;4.8}$)

Corrie$^{J;6}$ echoed,

> I always have to wait there even when I have an appointment. Even after my name was called, sometimes I still need to wait. I think the nurse called my name when she thought that the doctor would finish the meeting with the previous patient shortly. Sometimes they talk longer than that. I was told to wait outside of the room, maybe for 5 to7 minutes. At that time, I waited, in total, more than an hour. It was very tiring because I was pregnant. (Corrie$^{J;6}$)

Because of the difficulty in estimating the entire time required to see a doctor, participants and other individuals who accompany them (i.e., friends and family members), are often forced to take a day off work or school.

Whether or not individuals can bring someone to assist with language difficulties when they visit the doctor largely affects their access to healthcare. For example, after coming to Japan for his father's job, Bart$^{J;20}$ experienced numbness in his arm. His father was the only one in his family who could speak Japanese at that time. Bart$^{J;20}$ reflected,

> When I came to Japan, at the beginning, I couldn't speak Japanese at all. It was difficult. My dad could speak Japanese. I asked him to come with me to check … my arm. He said, "I don't want to do it…It's too much work." (Chuckles) I thought then it's okay not to see a doctor. It was not that big a deal. I ended up not going. (Bart$^{J;20}$)

His father's unwillingness to accompany him to the hospital prevented Bart$^{J;20}$ from accessing medical treatments. Bart$^{J;20}$ attributed his father's unwillingness to accompany him to the hospital as his evaluation that the numbness was not serious enough for him to take a day off work. Knowing that taking a day off work also means no wages for the day, Bart$^{J;20}$ rationalized his decision not to see a doctor. Bart$^{J;20}$ added, "Also, I knew that he has been working day and night, and he was exhausted."

Compared to the time when Bart$^{J;20}$ arrived in Japan, the need for medical interpreters becomes more noticeable, but the system to provide interpreter services is not standardized. Although relatively large hospitals in urban areas, especially areas where many foreign workers reside, do offer medical interpreters, many people do not know about it. When discussing a possible visit to a hospital that has interpreter services available, some participants were surprised to know about the availability of medical interpreters in some facilities. Overwhelmed with the idea that he might have cancer, Edmond$^{J;5}$ perceived a dire need to bring a friend who speaks both Japanese and English when visiting a hospital. Edmond$^{J;5}$ said,

> I didn’t know that we could use medical interpreters at some hospitals. I asked my friend to come with me. I really needed to know what is really going on, but if I could use an interpreter at the hospital, I didn’t have to ask my friend to take a day off work for me. (Edmond$^{J;5}$)

Edmond$^{J;5}$ could get a doctor’s note for his own appointment, but asking another person to come with him as an interpreter creates additional burdens. Taking a day off work could put other individuals at the risk of losing jobs (i.e., Benji$^{J;29}$) and reducing the salary they are paid on an hourly basis (i.e., Brianna$^{J;20}$). Working for a small recycle shop, Benji$^{J;29}$ noted that he would not go to see a doctor because he does not have time for it. He said, “I have to make my boss happy with me. I work when he needs me. It’s not cool if I cannot work when he needs me. I think, including mine, people’s bodies can heal eventually.”

Instead of having someone accompany them when they see a doctor, some participants said they would get help from interpreters at the hospital they visit to avoid placing additional burdens on family and friends. Referring to the hospitals where interpreter services have been offered in the area he lives, Bart$^{J;20}$ reflected,

> When I came, there was not that much help available from interpreters, or maybe, I was just not aware of it. And there were not so many foreigners, so I practiced Japanese a lot. Nowadays, there are so many foreigners living in this area. So many of them don’t speak Japanese at all. They can live without it, you know? …Do you know the [hospital in Seto city]? Now you can ask for an interpreter when making a reservation. You can call them. The interpreter will be ready for your appointment. (Bart$^{J;20}$)

When he described this situation, I asked when a patient cannot speak Japanese when making an appointment, what happens? How can they ask for the service? Bart$^{J;20}$ paused and said, “ah…in Japanese. You have to ask for [an] interpreter in Japanese. So… you have to try hard at the beginning, or you can have someone call for you, but after that, you will get help from an interpreter.” Large hospitals tend to prioritize appointments rather than walk-ins. Asking for help in making an appointment places fewer burdens on family and friends, but some participants still must rely on others to access healthcare. In addition to requesting an interpreter, making an appointment presents obstacles for these individuals in accessing healthcare.

Both in the US and Japan, an appointment is required in many hospitals and health centers. Some participants found it challenging to make an appointment via telephone. Telephone conversations are often regarded as more challenging for non-native speakers (e.g., not being able to see non-verbal cues). Cooper$^{US;3}$ said, “I really don’t want to make an appointment with my phone.” By expressing his belief that every challenge related to language barriers can be solved with a dictionary equipped within his smartphone, Cooper$^{US;3}$ stated,

> As long as I have a dictionary, everything will be fine. If I don't’ understand what they are saying, I will just ask them to put the words on my phone, so I can translate it. If I don’t know the words, I will put the Chinese words on my phone and show the translations to them. (Cooper$^{US;3}$)

Cooper$^{US;3}$’s preference is the result of his previous experience in making an appointment. “I want face-to-face communication, so I came here [the health center] to make an appointment. It takes a little bit more time than making a phone call, but it makes things clearer." When I asked if he had asked other people to call for him to make an appointment, he said, "Nah, I can do it by myself. It's not that troublesome." Cooper$^{US;3}$'s motivation to be independent, however, does take extra time to access healthcare; making appointments in person is clearly a bigger burden in terms of time and transportation than using an interpreter or having the language assistance of family and friends to make an appointment.

In addition to *seeking* help when accessing healthcare, some participants help *others* with language barriers in the healthcare system. Participants explained that they themselves have language barriers, but sometimes they also see that their language proficiency is higher than that of other individuals in their social networks. In this case, participants encounter challenges in balancing the burdens while maintaining interpersonal relationships. Some people in his community (i.e., friends and coworkers) rely on Paul$^{J;20}$ for his language skills when accessing healthcare. Paul$^{J;20}$ said, "Everyone calls me to ask to be an interpreter. I sometimes go to hospitals with them, or sometimes I call the doctors." Paul$^{J;20}$'s willingness to help others is valuable. However, working full time, Paul$^{J;20}$ cannot always be available to help. However, having experienced similar difficulties, Paul$^{J;20}$ understands the situation and says he feels pressure to help others because he had earlier needed help from others. Paul$^{J;20}$ said,

> Sometimes interpreters are not available at the hospital. In that case, they need someone. When I got help from an interpreter for my appointment, [I thought] oh, that's an interpreter introduced from a community. The interpreter charged for the service at the end. She said, "Okay, it's 10,000 yen [around $100]." I was not notified about the pricing, and they [the service representatives in a

> community] didn’t say anything about money. The people I help don’t have money to pay for these interpreters. When I was in trouble…that was when my Japanese was way worse than now, other people helped me, so I want to be helpful if they need me. (Paul$^{J;20}$)

Kandy$^{US;7}$ agreed, saying “My parents and my brother… they would not go to the hospital if they didn't have me.” Kandy$^{US;7}$ is aware that her support is crucial for her family members. “I wish I could go with them every time they need me, but I sometimes cannot,” she added. As a member of a close-knit family, Kandy$^{US;7}$ describes heavy psychological burdens she has, stemming in part from not being able to assist family and friends every time they need her. Karen$^{US;14}$, who also immigrated with her family members, shared her experiences in assisting her parents with the government’s assistance application, saying,

> [My parents] recently got health insurance. The process was pretty…pretty confusing. It’s almost like… they have to bring someone with them when they talk with agents… to get some explanations about [the required] procedures. (Karen$^{US;14}$)

Karen$^{US;14}$’s parents sometimes ask her questions about the application and the process because her language proficiency is much higher. “But, you know, I don’t know these procedures well. I recently learned the word, ‘premium.’ It’s not a word I use on a daily basis, but I try to get some information because I want to help my parents.” Whether individuals are providing or obtaining help, the locus of responsibility can be unclear, and it can present additional challenges in maintaining their interpersonal relationships.

Being unable to accommodate all the requests for help may contribute to additional psychological burdens, especially because individuals' health is at stake. Paul$^{J;20}$ said, "Well, it's sometimes difficult, but they would understand. We will find the time we can go together." Despite Paul$^{J;20}$'s willingness to help others, the process of finding days that work for Paul$^{J;20}$ as well as the doctor and the patient delays access to healthcare. Moreover, given the possibilities of miscommunication (as illustrated in the following section), when a language-discordant patient whom Paul$^{J;20}$ assists is diagnosed with severe symptoms and worsened health conditions brought about by delayed access to treatment, Paul$^{J;20}$ may feel at least partly responsible.

Stigma and face threats to desired identity performance.

Negative perceptions attached to language-discordant patients both (a) preclude them from accessing healthcare and (b) decrease their willingness to use resources. First, individuals with language barriers confront challenges in accessing healthcare systems due in part to negative perceptions attached to language barriers. The use of language (i.e., non-native accents, unusual syntax, etc.) signals an individual's social status (Labov, 1966) and affects how these individuals are treated. The stigma attached to language barriers contributes to a reduction in individuals accessing healthcare systems even when they wish to receive medical care. Participants recruited in both countries reported this challenge. The narratives illustrate that the stigma often communicates that (a) the individuals do not have health insurance, and (b) the individuals are outsiders.

Although individuals with valid legal status are eligible to purchase government health insurance in Japan, some of the participants chose not to have it in order to meet other, more pressing needs. Becky[J;23] said,

> I had national health insurance before. I recently changed my job, so I don't have health insurance now. After six months, I was told that I would be able to purchase social insurance. But… if I get that, I don't have that much salary left. My monthly salary would be less than 10,000 yen [around $900 in the US]. Even when I have health insurance, visiting a doctor won't be free. If I don't go to see a doctor, then, I can save a lot of money. There are many of us, I mean, people living here, facing the same problem. (Becky[J;23])

The housing complex Becky[J;23] lives in is public housing where many individuals with low income as well as immigrants and minorities reside. Having a large population of low-wage earners, the communities and social networks within this housing complex have developed to accommodate the needs of the people living there. At the same time, the stigma attached to these populations spread. Paul[J;24], who has lived in the same public housing complex, shared his experience when he went to the hospital to be treated for a sudden stomachache, saying,

> I had a severe stomachache at night and I couldn't even walk. It was really painful. I went to the hospital in an ambulance. When I was explaining about my condition to the doctor, they asked me, "Do you have insurance?" So, I said, "Not today, but I will get it tomorrow." The doctor said, "Well, you need some treatments, but today, it is okay to go home. Please come back tomorrow." He gave me some painkillers, but that was it. (Paul[J;24])

Paul$^{J;24}$'s not *carrying* the information about his health insurance with him was miscommunicated as if he does not *have* health insurance. Moreover, his disfluency reinforced his non-Japanese status, contributing to the perception that foreign workers are poor and do not have health insurance. Paul$^{J;24}$ reflected, "Maybe… it could be because he saw me as a foreigner." Paul$^{J;24}$'s comment shows his acknowledgment that it is possible that the doctor refused to give him treatment because of his non-Japanese appearance (non-Mestizo Hispanic). However, Paul$^{J;24}$ also believes that he could have gotten much better treatment if he could speak Japanese more fluently. Paul$^{J;24}$ added,

> I think I was…was upset. Well, I couldn't speak Japanese clearly either. But, but… I couldn't explain that I have health insurance. I needed to get the proof at the city hall. Not that day, but the next day. I didn't have that with me, but I had health insurance. I know that I paid for it. (Paul$^{J;24}$)

With unclear communication, the doctor followed the stigmatization that individuals with language barriers don't have health insurance, rather than putting forth effort to understand Paul$^{J;24}$.

With so many types of health insurance, it is challenging for medical providers to be familiar with everyone. In particular, citizenship is required for less expensive government health insurance in the US (e.g., Medicaid and Medicare). Language barriers signal immigrant status, contributing to discriminatory behavior toward. Kandy$^{US;7}$ experienced difficulties in accessing healthcare due to an uncommon type of health insurance she had. Kandy$^{US;7}$'s narrative illustrates that language barriers accentuated difficulties related to the uncommon insurance. Kandy$^{US;7}$ said,

> They said they never heard [of] this before… They looked like they were kind of…[giving] up. I was trying to explain, but it seemed like she didn't understand my English, but she was really rude, and then, she just didn't want to try anything for us. She didn't try, yeah. (Kandy$^{US;7}$)

Similarly, Virginia$^{US;5}$'s experience underscores the implicit, negative meanings attached to language barriers. Injured in a car accident, Virginia$^{US;5}$ shared her experience of going to the ER:

> I'm telling you, Emergency Room - I needed to fill out an agreement that I have the money to pay ER, and I didn't have my . . . Blue Cross card for the medical insurance, and they didn't want . . . to treat me because I didn't have the health insurance card with me. (Virginia$^{US;5}$)

Virginia$^{US;5}$ speaks English fluently, but recognizes she has an accent. Virginia$^{US;5}$ attributed the reason why she was asked to sign the agreement to her accent. She said, it's "because they detected my accent. They found that I am not a native speaker, and I am not from here. That's the reason they asked me about health insurance before they treat me." As Virginia$^{US;5}$'s experience illustrates, language barriers often signal that an individual is merely a visitor in the country. Kedric$^{US;8}$ discussed a time he needed to take his mother to a hospital for treating intestinal cecum. They were traveling to California together during her visit from Korea. Kedric$^{US;8}$ reflected,

> I was told that I have to pay in advance to get the surgery done for my mom. I was so panicked… but one of the nurses, she was a Mexican lady… Spanish lady passed by and saw me being very very upset. She asked me what's going on…when I explained my situation, she said, "Oh, that's illegal." I think she

> [the person who said to pay first before receiving treatments for my mom] thought we are foreigners…She thought we would just leave the country without paying the cost. (Kedric$^{US;8}$)

Kedric$^{US;8}$'s non-native accent and speech disfluencies underscore the possibility of his status as a short-time traveler or an illegal foreigner, evoking healthcare providers' concerns about payment. In this case, one of the staff members helped Kedric$^{US;8}$ access the necessary care for his mother. However, without this help, he may have been unable to get the treatment his mother required no matter how strongly he and his mother urged medical practitioners to care for her.

Second, when participants perceive possible face threats as a consequence of accessing healthcare, concerns about managing their desired identity reduces the likelihood they will initiate medical treatment or return to the hospital/clinic for follow-up visits. The narratives illustrate the participants' desire to be socially accepted, and to be treated in the same ways as people who have language proficiency. Some participants shared their hesitation about going back to hospitals/clinics because of negative experiences from previous visits. These participants' narratives show that they are aware of negative perceptions attached to language-discordant patients. "I felt like I was very stupid," Chaz$^{US;7}$, frowning as he recalled his previous visit, commented:

> I would go to see a doctor when really necessary, but I don't want to go…When I was trying to ask questions, [the doctor] would stop me whenever he didn't feel comfortable about my expression, the ways, the content that I said… That's always in my memory. (Chaz$^{US;7}$)

Although the doctor may have tried to clarify what he was saying, Chaz$^{US;7}$ described the doctor's communicative style as disagreement, as if what Chaz$^{US;7}$ was saying did not make sense to him. Chaz$^{US;7}$ explained his interaction with the doctor as discriminating.

Similarly, Brent$^{US;2}$ recalled the time he visited a hospital. Brent$^{US;2}$ perceived face threats as an individual who is socially accepted and attractive. Describing the reasons why he hesitates to go to a hospital, Brent$^{US;2}$ reflected,

> Yeah. I mean, um, there are some, uh, occasions when I could get some negative, uh, expressions from the people, not only from the, uh, the health professionals. Maybe also from the people, those that are seeking for the doctors or something like that… in some places, maybe because of my race or something. Um, I feel like, uh, they were not happy with me or they didn't like me, something like that… I won't go to the hospital, uh, until and unless it's emergency. I try to avoid going to the hospitals. I don't want to be, you know, humiliated… because of my language or anything. (Brent$^{US;2}$)

Both Chaz$^{US;7}$ and Brent$^{US;2}$ shared strong resistances to visiting a doctor unless absolutely necessary because they predict that their sense of self-worth will be reduced.

Language Barriers within Healthcare System

Language barriers contribute to challenges within patient-clinician interaction. More specifically, language barriers prevent individuals from (a) asserting their desired identities, (b) exchanging information, and (c) building and maintaining relationships.

Asserting Desirable Identities.

Individuals learn appropriate and desirable behaviors in their host societies through daily interaction. Some participants learned culturally appropriate behaviors through observation. Referring to the occasions when he found his communication did not work, Brady$^{J;7}$ said, “I noticed that it was not appropriate by seeing others’ reactions. They showed me a weird look, and that is the time I learned that I didn’t do it in their way.” Others learned culturally appropriate identities by native-speaking peers. Ida$^{J;2}$, for example, learned the ways to express modesty, commenting,

> In Indonesia, people have a different way to be modest. When people praise me, I would say “Oh, thanks” [in blatant voice]. In Indonesia, I would say “Thank you” in a really funny voice. It means, “I don’t really think so.” Okay, but kind of, agreeing with what other people say, but the tone of the voice kind of tells that “Oh, I don’t really think so.” When I want to say to a person in America, we just like, “wow, nice card!” and people say, “thank you!” But in Japanese, people say “no way, why do you say that?” […] when my friend said, “I love your skirt, Ida!” I said “thank you” in a funny voice, you know, to mean, “I don’t really think so.” Some of my friends tried to teach me the culturally appropriate way to react to such complement by saying, “You shouldn’t say it.” I didn’t mean [to imply] that I’m good. (Ida$^{J;2}$)

Having learned what could be perceived culturally appropriate, these participants make attempts to perform these identities in patient-clinician interaction, for creating pleasant and effective experiences in managing their health. Despite their attempts, language barriers sometimes prevent these individuals from asserting desirable identities as (a) polite, agreeable patients, (b) active, engaging patients, and (c) respected, independent patients.

Identities as polite, agreeable patients.

Many participants recruited in Japan are aware that Japanese society places high value on politeness, including the belief that politeness and agreeableness are key components to successful interaction. Cindy[J;5] described an occasion when she learned the importance of being polite in interaction with Japanese individuals. Describing the occasion during which she committed a cultural taboo, Cindy[J;5] said,

> Communication styles in Japan and China are totally different. People in Japan don't say what they think straightforwardly. One time, we are eating lunch together. We have a kind of girls group. I found one of the girls' eyebrows kind of awkward. It was very obvious for everyone, but no one said anything about it. So I said, "Your eyebrows look awkward today, don't you think?" Some of the girls giggled. I was sure that others also felt that way, but no one said it out loud. Then, I was also told, "Hey, you opened up a Pandora's box" [an expression occasionally used among young females in Japan to indicate that a person did something inappropriate]. Well, I guess that was not appropriate. I apologized, and I learned. I learned… so I try to say what other people say even when I don't feel in that way. (Cindy[J;5])

In patient-clinician interaction, politeness and agreeableness play important roles, especially in light of the power differences present in doctor-patient dyads. Medical providers have more power based on the amount of information they hold about medical treatment, as well as their high social status in Japan.

When disagreements occur in patient-clinician interaction, patients face difficulties in communicating their thoughts and preferences in an effective manner. Cherri$^{J;4}$ said,

> When I was in China, you know, I used *kampo* (漢方: Chinese traditional medicine). I have a pretty good idea on which part of my body suffers and what I would need to heal. I went to a hospital when I got fever. Although I thought I needed a medicine to draw out the irritation, I was prescribed a painkiller. I couldn't point it out. Isn't it awkward if I explain … to the doctor how [the] human body works? I would say things if it was in China. The Chinese doctor would understand what I am saying without that much effort. Japanese is less direct than Chinese, I try not to say a lot because I don't know the better ways to communicate my concerns … you know, in [the] Japanese way. (Cherri$^{J;4}$)

By facing challenges in communicating her preferences, she indicated that explaining how *kampo* works to the doctor could be face threatening for him, and she did not know the nuanced way to communicate her preference while avoiding underscoring that she is more knowledgeable about *kampo* than her doctor. A similar idea was described by Traci$^{J;2}$, who said,

> When I … developed otitis media, the doctor first prescribed me a painkiller. I disagreed with the doctor, and I knew I needed antibiotics. But I did not say it. I just went to a different clinic. The doctor in that clinic prescribed me antibiotics, so it was good. (Traci$^{J;2}$)

Both Cherri$^{J;4}$ and Traci$^{J;2}$ are graduate students at a Japanese university. During the interviews with them, I found that they both have high language proficiency in

Japanese, which allows them to communicate their concerns in detail. However, their language proficiency is not high enough to communicate nuanced meanings without being direct or blunt. With language skills similar to those of native Japanese speakers, they would have been better able to express their concerns without offending medical providers. Daily interaction taught them that culturally inappropriate interaction may contribute to social punishment (e.g., less friendly interactions), they decided not to speak up about these concerns or disagreements to avoid possible negative consequences (e.g., unfavorable treatment). When asked about the strategies used to cope with such unvoiced disagreements, Cherri$^{J;4}$ said, “I just go to see a different doctor, with the hope that the next one gives me what I want.” These narratives demonstrate that the inability to differentiate nuanced meanings negatively affects the quality of care.

Identities as active, engaging patients.

Throughout the interviews, participants recruited in both Japan and the US indicated their involvement in patient-physician interaction affects the quality of care they receive. Despite their expressed desire to be active and engaging, patient concerns derived from language barriers that they indicated reduced their abilities to assert their identities as fully active and engaging patients. Commonly shared concerns are (a) their active communication can be perceived as annoying, and (b) their limited language proficiency contributes to unwanted consequences.

Through social interaction both inside and outside hospitals and clinics, participants described their awareness of the possible burdens their language barriers place on their conversational partners. Because participants observed that their language barriers sometimes frustrated other people, their narratives highlight their hesitation to present themselves as active and engaging patients. Looking back to the time when he asked multiple questions during a doctor visit for a complicated fracture, Brady$^{J;7}$ said,

> I asked a lot of questions. I was not sure what is going on and what can be done. One question triggered 2 or 3 other questions because I don't know many words and what is normal anyway. Shortly after, I sensed the atmosphere…I was cumbersome to the doctor. (Brady$^{J;7}$)

Charles$^{US;7}$ shared his concerns about the possible negative influences of "being cumbersome" in patient-clinician interaction. Although he does not sense any problems in communicating ideas and concerns related to his health, he was not sure if his behavior was culturally appropriate as a patient. Charles$^{US;7}$ said,

> We have just a limited number of specialists and even more limited number of specialists who participate in … [any given] … health insurance plan. We don't have too many choices. If you see a doctor and if they say something … [their] words maybe make you uncomfortable, but the thing … that … concerns [me] more… let's say, you know, if something similar happened to me, the thing that … [is of more] concern … is whether their attitude will influence their behavior later on. If he or she thinks I am trouble, will he or she treat me in the future appropriately? Or [will] he or she just [say], "I just want to get rid of him as soon as possible. I will just give … him [the] minimum amount of care and, uh, even, you know, lessen the standard." (Charles$^{US;7}$)

Staying in the US for a good amount of time, Charles$^{US;7}$ is familiar with how the managed care system works. Despite his high language proficiency in communicating his ideas and preferences in detail, he was not sure what would be regarded as appropriate engagement on the part of a patient, while simultaneously reducing the possibility of annoying healthcare professionals.

Similar challenges emerged from a participant recruited in Japan. Chance$^{J;4.8}$ said, “When the doctor was explaining many different things, I wanted to ask questions. But the words were difficult and I couldn’t speak that much. I tried to memorize the words and looked them up in a dictionary later.” When I asked if his hesitation for asking questions during the patient-clinician meeting came mainly from his lack of vocabulary, he added. “Well, it’s annoying if I ask the meaning of every single word. I can look it up in the dictionary.” Due to his preference to be active but not too annoying, Chance$^{J;4.8}$ tends to avoid holding the decision-making conversation with medical providers on the spot. It forces him to take longer to express his preferences and/or ask questions. Fortunately, the health issues Chance$^{J;4.8}$ faces at this stage of his life are not life-threatening. Similar to other patients, Chance$^{J;4.8}$ noted that he would ask more questions without worrying about annoying doctors when his symptoms are more severe. However, it is apparent that such a strategy requires additional visits to a doctor’s office and places more burdens on patients when managing their health.

The narratives from Chance$^{J;4.8}$ and Charles$^{US;7}$ described that these language-discordant patients experience a similar challenge in asserting a desirable identity as a patient. However, when compared to the narrative shared by Chance$^{J;4.8}$, the narrative from Charles$^{US;7}$ illustrates that language-discordant patients encounter more difficulties in asserting their identities as active, engaging patients in the US due in part to the health insurance system. Although it seems that managed care provides patients some freedom to choose medical practitioners, the individuals in the US environment perceive higher pressure to maintain good patient-provider relationships compared to the Japanese environment in which patients can see any doctor without worrying about a health insurance network.

Another concern shared by participants is that their limited language proficiency contributes to unwanted consequences. By asserting identities as active and engaging patients, the participants indicated that they make more mistakes, which they suggest contributes unexpected, and often negative, influences on treatment types and diagnoses. Kandy$^{US;7}$ shared her hesitation to talk with her medical providers actively. She said,

> I don't…speak that much when I see a doctor. I'm worried what I'm saying could make a problem, like a one mistake or some words, it could affect me… about, like, my financial and then, my diagnosis. Because even though I can speak English in daily life, I know my English is not perfect when I have to talk to the doctor. And uh, tell… explain about my symptoms, and then, it makes me really nervous whenever I have to see doctors or nurses, and then tell them the real situation, and then, my symptoms because, yeah, because of my English, yeah. If I say something wrong, they gonna give me some medicine which I am not … supposed to take, like those kinds of situations, yeah. (Kandy$^{US;7}$)

Being restricted by these concerns, many participants said that they often do not actively share their perspectives about symptoms or ask detailed questions. Jake$^{US;3}$ echoed the idea, sharing the time when he and his wife were seeing a doctor to make arrangements to deliver a baby. He said, "I got all the fundamental information, so it's okay. If it's in Japanese, I think I could have asked questions more in detail. I mean, more actively. But I think it's okay. Well… I found it okay later. (Chuckles)" Although Jake$^{US;3}$ did not encounter clinical consequences, this is merely an afterthought. Inability to clarify concerns or ask questions increases anxiety about health care and eventually contributes to negative effects on the quality of care.

Identities as respected, independent patients.

When having conversations in their non-native languages, many participants shared their frustrations and struggles with being unable to communicate as clearly as they do in their own languages. By receiving corrections about their word use, communicative styles and/or perceiving negative feedback from their conversational partners on a daily basis, some participants said that they lack confidence related strongly to their limited language proficiency. Bart$^{J;20}$ said, "My friends and other people feel embarrassed when speaking in Japanese." Kedric$^{US;8}$ shared his perspectives. "When Americans speak, when they are speaking English, sometimes, you know, I feel afraid when I speak in English. They might not understand … what I am saying. So … it sometimes makes me feel … no confidence."

Corresponding to the impressions they have gathered through social interaction, participants' narratives demonstrated that their limited language proficiency contributed to their being seen as less respected and independent in patient-clinician interaction. The shared concerns are that (a) language barriers cast the language-discordant patients as incompetent, and (b) language barriers allow medical providers to take advantage of language-discordant patients.

Language barriers reduce the likelihood that individuals feel competent about their skills in accurately encoding their meanings into a message that their medical providers will understand. Some participants recruited in Japan specifically attributed the cause of the misunderstandings or ineffective communication to their own lack of language proficiency. By looking back some of the unsuccessful interactions with his medical providers, Vincent$^{J;6.5}$ said, “I didn’t feel offended or anything negative when the communication did not work with my doctors. Probably, the ways, the ways I explained the situations were not great.” When sharing her experiences of having miscommunications in patient-provider interactions, Carol$^{J;6}$ commented,

> I previously visited a doctor to, talk about… my losing hair. I was worried about it a lot because I was talking about the hair on the head. I said, “I’m worried.” But the doctor immediately said, “It’s normal.” I was surprised, and… I wanted to hear something. I wanted to see some concern from the doctor. I wanted him to run some examinations. He didn’t touch my head… he did nothing, but he said “It’s normal. It’s okay.” I insisted that there must be something because I was really worried about this, so the doctor gave me an ointment. I was not happy, but after a while, I thought that it might be not that big a deal. I mean, my symptoms. Maybe it was my fault. Maybe it was because of the language barriers. I probably did not tell him about my symptoms and conditions correctly or clearly. He probably didn’t know what to do or how to explain things. It might be because I didn’t ask questions appropriately. (Carol$^{J;6}$)

As Carol$^{J;6}$’s case demonstrates, language-discordant patients who are aware of the possible mistakes they might make contribute to difficulties in presenting themselves as competent patients. Although she did not explicitly make comments about such implications, Callie$^{US;4}$ stated the importance of being prepared to share concerns and symptoms before going to see a doctor. Her comment reflects her desire to present herself as responsible and independent. Callie$^{US;4}$ said,

> Um, first, if you, you are a foreigner come from other countries and you are not familiar with the system, you should, I think you should do some research. … it's not saving your own time. It's saving other people's time."

Callie$^{US;4}$ believes that taking a long time to explain symptoms and concerns uses up other people's time, and that taking more time than other people indicates less opportunity for her to be treated equally compared to individuals with language proficiency. However, not everyone is aware of the ways to prepare themselves for talking about symptoms. Sometimes individuals have to face intensive patient-clinician interactions unexpectedly.

Paul$^{J;20}$ had some chest pain when he was 30 years old. After taking two months off work, he and his doctor decided to have follow-up visits every month. Paul$^{J;20}$ misunderstood the appointment day. Paul$^{J;20}$ said,

> After a whole day spending for examinations, I met a different doctor. Well, I went to the hospital on the wrong day. The doctor suddenly started yelling at me. "What are you doing here!?" He was really mad. He said my heart stopped in the middle of the first examination. He explained… so he had to go through all the procedures to make my heart… alive again. He pushed my chest to make my heart alive again. […] I lost a job because the doctor said that have I a

> problem with my heart on the doctor's note. I had to feed my wife and three children. What should I do?

Referring to the second opinion obtained from a Spanish-speaking doctor, Paul$^{J;20}$ re-visited the hospital to ask the doctor to correct his records, so that he might be able to get back to the position he used to have. He explained,

> The Spanish-speaking doctor said it's not a problem. My heart was just fine. I was complaining about the false diagnosis. The other doctor said it's a scar from the past symptom. It's totally fine now, but all what the doctor said was "the diagnosis came from the machines [the diagnosis was made based on the numbers calculated by medical equipment], so it's not a false diagnosis." At the end of the conversation, the doctor said, "Please study Japanese more." (Paul$^{J;20}$)

Throughout the conversation with the doctor, Paul$^{J;24}$ was asserting an equal footing (or even a position of strength) by criticizing the doctor's unsatisfactory performance as a professional medical provider. However, at the end of the conversation, the doctor re-directed the blame toward Paul$^{J;24}$ by implying that the false diagnosis was caused by Paul$^{J;24}$'s inadequate language skills.

Even when patient-clinician interactions threaten identities as respected and independent patients, language barriers reduce the chances that these individuals will take further action. When language-discordant patients disagree with their medical providers, language barriers may force them to bear such dissatisfactions silently. Edmond$^{J;5}$ shared his frustration for not being able to express his emotions to his medical provider. He went through different medical tests that he thought unnecessary. He said, "It was nothing… If [I were] in England, I would complain, but my Japanese is too poor to do that." Without being able to express dissatisfaction or disagreement, the quality of treatment he perceived would be low, even when the tests and treatments are normative and standardized in Japanese medical practices. Although being polite and agreeable is expected and desired in Japanese society, being unable to express themselves effectively in the healthcare context can be stressful and possibly puts additional psychological distress on these individuals, many of whom are suffering from a medical condition that is also stressful.

As illustrated above, participants' language barriers can place language-discordant patients in less powerful positions. Some participants strongly believe that language barriers allow medical providers to take advantage of the language-discordant patients. Chaz$^{US;7}$ shared his tips for visiting a doctor.

> Try to be more critical, to have a critical mind and be … suspect some of the action taken by the doctor if is it completely necessary. Sometimes they may take advantage of you because you are from a different country, or you may not know the language well. You may not [use] the terminology well, so they may provide you some extra care (chuckles) and extra services that are unnecessary. I mean, when that happens, it's almost like you cannot do anything. But definitely check the bill and then search … online and [determine] if similar symptoms or similar things happened to your peers for the, uh, among the people from your same country or different country and then compare [to] see if you are getting the treatment … in a good way, in a respected way, or in a equal way. That's important, I think. (Chaz$^{US;7}$)

By describing patients with language barriers as “soft targets,” and easy to take advantage of (e.g., for earning more money by conducting unnecessary tests), Chaz$^{US;7}$ expressed his distrust toward medical providers and the implications that language barriers make individuals look inferior to those with language proficiency.

As these narratives show, language barriers place challenges in asserting identities as respected, and independent patients. Despite these negative connotations attached to language barriers, some participants described their experience positively. These participants (voluntarily) accept less independent identities to achieve other goals. Describing his general experiences of visiting hospitals in the US, Knight$^{US;10}$ said,

> Uh, yeah, I mean I think here is more like you know, as a foreigner, if I'm … [a] US citizen and…if English [is] my first language, I might think that you know, hey uh, “don't ask any more questions, I mean you know I, I wanna make it quick,” you know, and it's for uh ... As a foreigner, … I like it here. They, they treat me like … a little … baby. (Knight$^{US;10}$)

It appears that Knight$^{US;10}$ accepts the dependent role in patient-clinician interaction. However, it later appears to be his strategy to reduce the uncertainty in the process of receiving medical treatment. Knight$^{US;10}$ re-framed his language barriers and less independent identity as an additional resource to play a role of active and engaging patient. When asked if he feels comfortable about being treated like a baby, Knight$^{US;10}$ said, “It’s true. I don’t know anything in the medical field. Whenever I ask questions, they tell me everything in detail… I can ask questions anytime.”

Exchanging Information

Almost all of the participants recruited in both countries identified the process of exchanging information with medical providers as challenging. The commonly shared challenges are (a) inability to find words to explain one’s conditions (“some words, I didn’t know how to say it in English,” Corwin$^{US;0.5}$); (b) the unusual conditions in which patients have to communicate in their non-native languages (“I felt a little bit of trouble describing what I encountered … because that sort of thing has … never happened to me,” Claudia$^{US;5}$); and (c) the increased uncertainty because of unfamiliar words (“I just don't feel comfortable … [with] some of the vocabulary words. ‘Cause they have some words that describes stuff that I've never heard of,” Nick$^{US;1}$). With examining the ways language barriers create challenges in more detail, four subthemes emerged from participants’ narratives. Individuals confront challenges in exchanging information because people are (a) encountering the confounding nature of language use, (b) making a relationship between sociolinguistic skills and language proficiency, (c) interacting in unfamiliar contexts, and (d) following normative practices from home countries.

Confounding nature of language use.

Some of the participants’ narratives described the confounding nature of language use in Japan. Traditionally, the Japanese language has borrowed words from other languages (e.g., English, Spanish, and German). When people in Japan adopt words from other languages, they keep the basic term, with typically a tweak of pronunciation. Edmond$^{J;5}$ experienced severe psychological distress when a misunderstanding occurred, attributable at least in part, to the confounding nature of language use. Edmond$^{J;5}$ commented,

> It wasn't really anything. I didn't think it was anything serious, but then one of my friends said, “Maybe you should just get it check out.” So when I went to the clinic, the doctor had a look at it. The doctor, he couldn't speak any English really, well, only a few words…. I was expecting him to just say, “Oh it's nothing. It'll go away soon.” But he said like, um, he wrote the words like MRI on a piece of paper and then said the word like cancer. I think it's Japanese, does it mean like investigate or something? … Um, I didn't know that it meant investigate. I thought he said cancer. So after leaving the clinic, all I knew is that he said MRI and cancer so I thought he thought that I had cancer. (Edmond[J;5])

Biomedical education in Japan requires doctors to study medicine using English textbooks and journals and to conduct/publish research in English. Along with the concept of borrowed words, healthcare providers in Japan sometimes use English medical terms with a tweak of pronunciation, as mentioned. As well as the term “cancer,” “MRI” has become a widely used medical term. If the individuals are aware of the concepts of borrowed words, and if the medical providers’ English skills are limited to major terms, it is possible that individuals misunderstand *kensa* (検査: examination) as an English word “cancer,” especially (a) when it comes with another foreign word, “MRI,” within the same context and (b) given that MRIs are often used to find cancer.

When medical providers speak in languages other than Japanese, possible misunderstandings derived from the inherent confounding nature of language use can be reduced. English is, at this time, the language that medical providers in Japan perceive themselves prepared to use (Non Profit Organization: Advanced Medical Promotion

Organization, 2013). Although the confounding nature of language use created challenges for Edmond$^{J;5}$, some participants whose native language is English found it somewhat useful. Upton$^{J;4.5}$ shared his experience of visiting a clinic. He said, “I had a high fever and they asked me questions. Um, it … like the communication was okay. It was part Japanese, part English so whenever they could speak a little English they would and whenever I could speak some Japanese, I would.” This communication style they adopted ensured that there are some Japanese words and English words mixed in utterances. Thus, Upton$^{J;4.5}$ could assume that the medical providers know many more English medical terms beyond the major ones.

Commenting about her positive experience, Ursala$^{J;3}$ said, “I had a doctor who tried to speak English. Um, even though my boyfriend was there, he still tried to speak English.” In addition to the medical providers’ efforts to speak in her native language (English), not having to worry about the confounding nature of language use helped keep the conversation focused. Without guessing about whether words are Japanese or borrowed words with a tweak in pronunciation, Ursala$^{J;3}$ described her satisfaction with the health care she received.

Relationship between sociolinguistic skills and language proficiency.

Disfluency and accent can signal one’s non-native status, and native speaking individuals sometimes make accommodations in their communicative styles to more easily interact in their non-native interlocutors. However, detecting disfluencies and accents does not always prompt native speaking medical providers to alter their communicative styles. In the US, where there are many immigrants and minorities, having an accent is sometimes not enough to label or treat individuals as having language barriers. People presume and expect sociolinguistic skills along with language proficiency, whether or not the person is actually equipped with the sociolinguistic skills in question. Isabelle$^{US;8}$, for example, does not perceive any trouble communicating in English. When I asked if she has difficulties with her language skills, she said "Well, not really true." She continued,

> The assumption at the bottom is the same. Since you show a certain proficiency in the language, then, there is the assumption that you understand the system. You can't speak the language if you have not been exposed to whatever system we are talking about. It maybe the healthcare system or any other system. … What if I … have not been exposed or I don't remember, or I'm not sure if it works that way anymore, but there is the assumption that… no, if you speak the language, then you should know this, so let's move on. (Isabelle$^{US;8}$)

Reflecting about a time when she visited a hospital to be treated for pneumonia, Valerie$^{US;2}$ said. "I really had trouble with that thing, and they just don't believe that I'm having trouble with it because I performed so well before."

Failing to accommodate language-discordant patients based on perceived language proficiency could reflect (a) healthcare providers' respect for these language-discordant patients or, (b) their positive intentions to treat these individuals as equal to patients who do have language proficiency. However, as the narrative from Knight$^{US;10}$ previously demonstrated (see *Identities as respected, independent patients*), some of the participants expressed appreciation for being treated as foreigners who are unfamiliar with sociolinguistic skills in the host society. This is true, especially when these participants face anxiety and uncertainty in healthcare situations. Claudia$^{US;5}$ positively commented about the time when her doctor treated her as a foreigner in a very implicit way. She said, “They explained everything in detail. The doctor sometimes said, ‘you may not be familiar with this, so let me explain.’” Such a small remark can reflect medical providers’ thoughtfulness and care without offending language-discordant patients’ confidence, while avoiding the presumption that these patients have acquired certain sociolinguistic skills. Some participants’ narratives underscore the need to avoid such presumptions because language proficiency levels fluctuate depending on one’s physical and psychological state.

When individuals are sick, composing sentences and understanding words become more challenging. Ken$^{US;5}$ said, “If I am really sleepy or sick, I cannot understand what they are talking about.” Claudia$^{US;5}$ echoed, “I felt like what I was saying didn’t make sense to them because I was too upset.” Overall, language barriers amplify the struggle to convey what their symptoms are, how they are feeling, and what they think the causes are. Given these situations, language barriers can create additional challenges for individuals to manage health even though they typically perceive themselves as fluent.

Presuming individuals are equipped with sociolinguistic skills, individuals may miss the important but common information needed by native speaking individuals. It would not be a problem for these individuals to ask questions if necessary. However, such presumptions can create additional challenges if these individuals—both patients and medical providers—are not aware of the need to ask questions, or don’t know which questions to ask. In these ways, language barriers may contribute to lowering the quality of healthcare.

Interaction in unfamiliar contexts.

Participants frequently attributed challenges in interacting with medical providers to unfamiliar terms and uncommon vocabularies. Some participants emphasized that their problems were mainly caused by limited vocabulary. Clay$^{US;4}$ shared his concerns by saying, “There are a lot of terms you’ve never heard of. I think that’s the core of the problem here.” Irnia$^{US;0.5}$ said, “When you are not from an English speaking country, you don’t know all the vocabulary. You just know the words which you are using daily.” All participants (N=60) shared this apparent challenge attributed to language barriers. This challenge increases levels of uncertainty and the possibilities of misunderstandings. The commonly shared concerns are (a) language barriers increase the level of uncertainty in patient-clinician interactions, and (b) individuals’ abilities to explain their symptoms do not always ensure successful informational exchange.

Language barriers increase the level of uncertainty in various aspects of patient-clinician interaction. Some participants pointed out the psychological distress caused by less efficient interaction. Cole$^{J;3}$ faced difficulties in explaining his symptoms and other information to medical providers. He said, “I spoke a lot, but it didn't make sense to them. After a while I gave it up. It was embarrassing (chuckling). I didn’t know what to do in the conversation anymore.” Moreover, the participants recruited in Japan reported that ambiguity embedded in the Japanese language makes it more challenging to understand what is really meant in conversations. Reflecting about informal conversations he has had with his medical providers, Vincent$^{J;6.5}$ commented,

> It is something challenging to understand what people are saying. Sometimes it’s because of their dialect. I often misunderstand what they are saying.

> Sometimes… it's hard to tell if what Japanese people are saying is true or not. Well, how to say it…. Japanese people are so nice. They think about what other people feel when they are making some remarks about others. They rarely say what they are really thinking about them. (Vincent$^{J;6.5}$)

Often categorized as a high-context culture (Hofstede, 1980), social interaction in Japan requires individuals have certain sociocultural skills to understand subtle nuances in informational exchanges. Being able to use Japanese honorific expressions fluently, Vincent$^{J;6.5}$'s high language proficiency was apparent. However, his language skills are not high enough to discern the ambiguous, nuanced, and unfamiliar meanings in conversations with Japanese medical providers. Although Vincent$^{J;6.5}$ states he believes that medical providers tell the truth directly most of the time, especially when the symptoms may indicate possible negative consequences, patients must still be aware of ambiguities that may contribute to a lack of understanding diagnoses or instruction about follow-up treatments and/or medications.

Other participants' narratives illustrate that individuals' abilities to express themselves (i.e., symptoms and how they are feeling) do not always mean that these individuals exchange information successfully. Being able to express their concerns and symptoms can be different from what they are experiencing, because vocabularies in the healthcare arena are often *studied*, rather than *acquired*. Kelsie$^{J;14}$ shared her experiences of seeing a doctor for a stomachache. She commented,

> I found it very difficult to use imitative words and onomatopoeic words in Japanese. For example, "チクチクする (*chiku-chiku suru: [prickliness]*)." It has subtle nuances, I think. I told the doctor that I felt pain in the stomach and I

> used the onomatopoeic word, *chiku-chiku suru* because I thought that was the best word I thought I could use to express the pain. But at the same time, I was not 100% sure if *chiku-chiku suru* was the right word. I learned many onomatopoeic words from my husband, friends, and sometimes my professors. If the word was something like "ピカピカする (*pika-pika suru: [lambent]*," I can confirm what I am seeing can be described as "*pika-pika suru*," because I can see the same thing when a Japanese person is explaining it to me. But when it comes to stomachache, nobody but [me] could feel the pain. I said *chiku-chiku suru*, based on what others previously described. It means, "it's not painful but I feel weird with the part," right? I am not sure if that was the right word to describe my pain. It was such a trouble when I had to bring my child to see a doctor. It was very frustrating as well. When I brought my child to a doctor, I ended up ignoring these subtle nuances and tried to give other information as much as possible. The information such as, the number of times he had diarrhea and the body temperature at certain times of a day. I said something like "he had 39 Celsius around 12 o'clock." I don't know the detailed terminologies, nor could use onomatopoeic words, but I could give detailed information about these things. Now the child got bigger and can express these subtle nuances by himself. I will let him describe these things because it's more accurate. He can include such nuances in words, much better than I can do. (Kelsie$^{J;14}$)

Colby$^{US;4}$ concurred, saying, "Similar to the time I was explaining about Chinese culture to American friends. I wasn't sure if what I said is really making sense to them… because I understand things as information, but probably I do not feel the same way.” Valerie$^{US;2}$ also commented, “I understand a lot, and I can talk about it, but I don’t know exactly if that’s the word [to describe my symptoms].”

The narratives from Kelsie$^{J;14}$, Colby$^{US;4}$, and Valerie$^{US;2}$ indicate the possibilities that patients and medical providers have differing interpretations and understandings of symptoms even when these patients’ descriptions make perfect sense to the medical providers. The impact of the possible misunderstandings created by such subtle nuanced differences in the meanings can be small. However, these possible misunderstandings can influence the quality of care as well as patients’ satisfaction levels.

Normative practice from home countries.

People follow specific normative practice when interacting with others. Participants frequently expressed their preference for receiving medical treatments in their home countries if given the choice. “I know how it works and I can explain my situation more accurately,” Edmond$^{J;5}$ said. The conversations are different from the normative practices in one’s home country, and this can increase uncertainty and confusion, as well as contributing to heavier pressure to explain one’s symptoms. The commonly shared challenge is that language-discordant patients must adopt different communicative styles in their non-native languages for successful patient-clinician interaction. While expressing her expectations for medical providers based on Chinese norms, Coretta$^{J;2}$ said, “They are experts, and they should know what to check, not just based on what I say.” Coretta$^{J;2}$ shared her concerns that if she cannot describe the symptoms well, she cannot help the doctor identify the illness or injury. She added,

> He doesn’t say any possible causes. I had to ask if it was caused by neglecting my health or staying up late for my part-time job… I know that sometimes I feel pain on the arm, but the pain actually could be coming from some parts on the shoulder… or somewhere else. Instead of my describing the symptoms as I thought, I want him to take more initiative and ask more questions. I don’t know what to say and how to say about my symptoms. (Coretta$^{J;2}$)

Compared to China, Japanese health practices can be regarded as slightly inclined toward Western-style medicine. Because Asians sometimes describe a good doctor as authoritative in determining questions to ask and making treatment decisions (Tam Ashing, Padilla, Tejero, & Kagawa-Singer, 2003), Coretta$^{J;2}$’s beliefs, along with Chinese normative practices, added confusion to her process in obtaining medical treatment. In addition to her beliefs and normative practices, the frustration and uncertainty from her low language proficiency possibly accentuated negative perceptions about the effectiveness of healthcare in Japan.

Similar challenges, at least partially attributable to normative practices, were also reported from participants recruited in the US. Individuals adjust the direction of conversation based on what others say and how they say it (Schegloff, 1992). When conversations are taken in unexpected directions, language barriers frequently adversely affect one’s performance in part because individuals are not familiar with creating utterances in those ways. Virginia$^{US;5}$ and Vallen$^{US;2}$ noted that in Venezuela, people often talk about many different things with their doctors. Vallen$^{US;2}$ described the normative practice in Venezuela.

> The doctor is the kind of person [who] likes to talk with you and know the patient. “Hey what's going on? How is your family?” You become like a friend of the doctor. I remember that was the first year I was teaching there…they said, "A surgery of appendix must be done to you." Okay, well great, and this doctor really likes to talk about philosophy and political science. “Where do you work?” “I work in the university.” “Oh no, come work here.” He loves to talk very much about philosophy and like those things so it was very interesting. "Doctor, how I am?" "You're good, you're good. Let's keep talking about the things." He was very curious about things. Up to the time the secretary came, "Doctor, there are some more patients outside. Would you take more time with him?" "Yeah, yeah, just a little bit." (Vallen$^{US;2}$)

While describing normative practices in Venezuela as “very unstructured,” Vallen$^{US;2}$ explained that “the doctors are the ones to pick up cues from these stories and to make a decision on what is related to my situation and symptoms.” Because of this normative belief, Virginia$^{US;5}$ and Vallen$^{US;2}$ found it difficult to provide the needed information to the doctor. Vallen$^{US;2}$ said, “‘What are your symptoms?’ They ask this kind of question. It’s very, very specific for specific things… it’s very framed and very specific for what you are going to do with the doctor.” Emphasizing the pressure to provide specific and concise answers to the doctors, Virginia$^{US;5}$ added,

> It’s just like a factory. You know, like you're treating everyone and then the doctors go and make sure everything is fine. And I'm like, why it's not, like, more personalized? They don't take the time to speak to every single person. “What is your symptom?” and “Okay, do you have any questions?” Like, they

> put you [under] so much pressure that you don’t, you are like, “No. I don't’ have any questions.” And then, after a while, you are like, “Oh my God, I forgot to tell him that.” (Virginia$^{US;5}$)

Because non-native speakers take longer time to compose sentences and digest information, extra pressure is placed on language-discordant individuals. The pressure may be even greater when these individuals face a high level of uncertainty about their symptoms.

Additionally, efforts to produce concise and accurate statements can create challenges in patient-clinician interaction. In some Asian countries, endurance (e.g., waiting patiently) and calmness are perceived as virtues that come with respect and better treatment. Participants’ narratives illustrate that such endurance and calmness can carry different meanings in the US. Valerie$^{US;2}$, for example, had pneumonia and headed to an ER with her host mother. Acknowledging that talking with too much emotion is not well perceived in Vietnam, she said,

> I think it’s important to explain as much as you can about what you are having problems with, and try to let them know that you are really sick, that you really (laughs) need help. Because sometimes they just feel, they just can’t feel it because like you are … alone, you have to be brave. Like, when I… whenever I am alone, even when I’m tired, I will still kind of keep it inside, and I try to talk and … pay attention [to] my word choice so that they can understand, and they can give me proper treatment quickly. But sometimes they feel that you are really calm, so you are not really seriously sick. I was really suffering at that time. (Valerie$^{US;2}$)

By following the normative practice from the home country, Valerie$^{US;2}$ attempted to make the patient-provider communication as smooth as possible. However, her calmness and careful word choices were seen by ER staff as indicative of less severe symptoms.

Building and Strengthening Relationships

When individuals do not share linguistic and cultural backgrounds, it typically takes longer to develop interpersonal relationships compared to dyads who share language and cultural backgrounds. While many participants reported positive feelings toward their relationships with their medical providers, some participants encountered difficulties in building relationships with their medical providers, in part because they (a) feel excluded from conversations, and (b) perceive alienation in interpersonal interaction.

Exclusion from conversations.

Although patients should be the most important participants in patient-clinician interaction, language barriers sometimes prevent patients from joining conversations in a meaningful way. Participants reported a sense of exclusion based on healthcare providers' verbal and non-verbal behaviors. Ulva$^{J;1}$ made these comments about the time she saw how medical providers interacted with other patients:

> And they put that on like my neck and my shoulders. It's the stimulation of, uh, electricity. And they do that for like 10 minutes and then they do what they call a "massage." But it's, I don't know what it is but they always like, you know they're asking me things like, "Oh where are you from? Um, where have you been in Japan," and it's really awkward. They are nice, but I guess, I think they

> don't know what to do with me. Sometimes …like it keeps me from wanting to go back sometimes because it just gets really …awkward… to be treated as a foreigner. (Ulva$^{J;1}$)

The frequently asked questions, "Where are you from?" and "Where have you been in Japan?" continually reinforce the perspective that Ulva$^{J;1}$ does not belong with the other patients. Language barriers sometimes place psychological barriers between patients and providers, limiting the conversational topics to predominantly healthcare issues. Because Ulva$^{J;1}$ brings her tutor to the clinic as an interpreter when there are complex discussions about possible treatment choices and recommendations, the conversation about health-related issues mainly occurs between the medical provider and the interpreter.

In addition to the remarks about feeling excluded in response to verbal reinforcement, non-verbal behavior, and perceived attitudes, participants are affected by these perceptions of the quality of patient-clinician interaction. Claudia$^{US;5}$ experienced severe allergies and went to see a doctor. As she was explaining the reason why she thought the symptoms arose, she felt the doctor was not reacting in the way she expected. Claudia$^{US;5}$ said, "It's like they're not surprised by anything you say. Besides, they're always wearing the same facial expression." Similar to Colby$^{US;4}$, who understand the words as information but not as an experience, Claudia$^{US;5}$ tried to measure if what she was saying made sense to the medical providers based on the doctors' reactions to her narratives. Recalling the time she saw her doctor not showing any reactions, Claudia$^{US;5}$ said, "They showed that they don't really care…so I was like, 'Okay, I would just shut up.'" Virginia$^{US;5}$ echoed, "They don't even ask your name.

They just ask when you had the pain." Such perceived indifference contributes to the impression that individuals are there merely for providing information that is necessary for diagnosis. With this impression in mind, patients' language barriers and reduced skills in describing symptoms, medical history, or insurance and payment information concisely and accurately, cast language-discordant patients negatively. When patients do not feel welcomed by medical staff, both the quality of the information exchanged and as well as patient satisfaction levels can be negatively affected. Given the therapeutic effect of having positive and effective interaction with medical providers, and being unable to feel included in the conversation may negatively affect individuals' psychological well-being.

Interpreters can mitigate the adverse influences of language barriers by conveying messages and improving the accuracy of information transfer. However, the sense of exclusion is still reported even when participants bring their informal interpreters. Ursala[US;3] described the time she visited a doctor for hyperventilation. She brought her boyfriend as her interpreter. "The time that I couldn't breathe so well, they took an x-ray of my chest, and they spoke mostly just to my boyfriend. [The doctor] never really looked at me," Ursala[US;3] commented. Because the understandable words (translated words into Japanese) were uttered from her boyfriend, the doctor's attention all went into him, rather than to Ursala[US;3] as the patient. Although interpreters are helpful when patients' language proficiency is low, communicating through a third person can hinder the development of rapport unless the third person is professionally trained to *assist* language-discordant patient-clinician interactions. Physically located within the conversation yet unable to meaningfully join the interaction can reinforce the negative impacts of language barriers and may thereby reduce patients' willingness to return to the receive needed treatment.

Perceived alienation in interpersonal interactions.

Language barriers contribute to challenges in building relationships with medical providers in part because non-native individuals perceive alienation in interpersonal interaction. Participants' narratives highlight that their signaling non-native status affects the ways medical providers engage in conversations with them. The reported differences are mainly related to non-verbal behaviors. The differences can be quite subtle, but they affect the ways patients perceive patient-clinician interaction. Colby$^{\text{US;4}}$ described the time when she went to a hospital with her boyfriend. Pointing out that she and her boyfriend share race, Colby$^{\text{US;4}}$ said, "His English is much better than mine; it's more native-like … They greeted him [in a] more friendly [way], more nicely. I can tell. Even though they are also nice to me, [I] feel the difference." While describing the sense of alienation attributed to language barriers, Colby$^{\text{US;4}}$ said, "They are not offensive, but you can tell it's different. They treated you differently [from the way] they treat … Americans."

Similarly, Corrie$^{\text{J;6}}$ and Coretta$^{\text{J;2}}$ perceived differences in the ways nurses communicate with them and with other patients. Corrie$^{\text{J;6}}$ said,

> I felt that the nurse talked to me a little bit more harshly than the time she talked with other Japanese patients. Her voice is louder when she talked to me. I somewhat feel that I'm discriminated [against]. I didn't feel that I am receiving a service. I thought of the possibility that it's just her personality, but I still feel I [was] discriminated [against]. (Corrie$^{\text{J;6}}$)

When I asked if Corrie$^{J;6}$ perceived differences in the nurse's facial expressions made to her and to other patients, she said, "No. I don't think I saw a difference, but I felt some differences…in her voice." It would be difficult to make a comparison of these facial expressions without examining nonverbal behaviors in videotaped interactions. However, these participants' subjective feelings are important because they heavily influence how individuals evaluate their experiences in healthcare. Coretta$^{J;2}$ perceived different facial expressions that nurses show to her and to other patients. Coretta$^{J;2}$ said,

> They are not mad, but they are cold. I couldn't speak Japanese well, and I couldn't understand Japanese well when I first came here. The doctor was nice, but the others… nurses? When I [am] going through some procedures, I couldn't understand what to do and what they [were] saying to me. So, I think, they thought I am troublesome. I felt stupid. (Coretta$^{J;2}$)

When I asked how did she identified such differences, Coretta$^{J;2}$ said, "These ideas mainly came from their facial expressions. I didn't notice anything from the ways they [spoke]."

Other participants shared differences in terms of verbal structures. For example, Becky$^{J;23}$ talked about her experiences in visiting a doctor. When I asked if she felt uncomfortable about the ways she was treated in healthcare settings, Becky$^{J;23}$ replied,

> Hmm … how to describe it .... Well, they are not happy when they interact with us. They are not overly smiling only to Japanese people, but…well, they interact with Japanese patients more gently. For us, like foreigners, we don't understand Japanese well, so they say things in short sentences…like, "go there" and "wait there." They speak all the things at once. We…foreigners, feel hurt. (Becky$^{J;23}$)

The exact Japanese words that Becky[J;23] used to say “go there” and “wait there” are “あそこ行って” [*asoko itte*] and “そこで待って” [*soko de matte*] respectively. These words are in the form of a request, but they are rather informal and not suitable for professional situations including healthcare systems. The expected ways to communicate these messages in healthcare systems would be “あちらです” [*achira desu*] and “そちらでお待ちください” [*sochira de omachi kudasai*] respectively. The shortened, informal structures could be the reflection of medical providers’ attempts to make their utterances easy for the participants to understand. However, their differentiating the linguistic structure can also imply medical providers’ alienating and disrespecting language-discordant patients.

Perceived alienation not only negatively affects patients with language barriers from building relationships with their medical providers, it also reduces their willingness to return for follow-up treatments or to access healthcare systems if other symptoms develop. This alienation also contributes to negative perceptions about healthcare in the host societies, which discourages not only language-discordant patients but also other individuals in their social network from seeking treatment needed to maintain good health.

Through these paths, language barriers present challenges for language-discordant patients in maintaining their health in both Japanese and US environments. By reframing the themes and subthemes illustrated above, the following sections address the functions and meanings of language barriers both in Japan and the US, how these barriers function and the overall influence on the quality of care.

Different Meanings and Functions of Language Barriers in Healthcare Settings

Careful examination of participants' narratives revealed that language barriers in healthcare settings in Japan and the US involve different functions and meanings. Although these differences are subtle, they nonetheless create distinct influences for health management and the quality of care received. The following sections are focused on the various functions and meanings attached to language barriers in the US and Japan, as well as how language barriers influence the quality of care. Table 8 provides a summary of findings addressing the second and third research questions, focusing on the distinct differences in functions and meanings of language barriers.

Table 8: The functions and meanings of language barriers in healthcare settings

	Distinct functions of language barriers	Distinct meanings of language barriers
United States	Shaping perceptions of healthcare systems in the host society	The shared challenges that highlight negative aspects of healthcare in the host society and prevent individuals from learning how the healthcare system really works.
	Preventing individuals from actively participating in patient-provider interactions	The communicative obstacles that contribute to an interactional dilemma: between one's desire to achieve personal goals and one's desire to maintain positive relationships with medical providers due to the limited healthcare network.
	Mislabeling individuals' knowledge and skills	The fluctuating language skills that can mislabel/overgeneralize individuals' specific knowledge and skills along with social expectations in the host society. When mislabeled/overgeneralized by medical providers, the fluctuating language skills can prevent individuals from fully participating in patient-clinician interactions.
Japan	Shaping perceptions of health treatment in the host society	The shared challenges that undermine the importance of understanding—not only receiving—the medical provider's instructions and may lead to possible drug complications.

	Creating additional challenges in receiving emergency treatments	The additional obstacles encountered by individuals in emergency situations when using (or attempting to use) the healthcare system in the host society.
	Preventing individuals from asserting culturally appropriate identities as a patient	The sociolinguistic barriers that prevent individuals from communicating their concerns and needs without offending medical providers.
	Confusing utterances from medical providers; misinterpretations by patients.	The linguistic characteristics that prompt some individuals to guess the intended meanings in spoken language.
	Increasing possible misunderstandings of nuanced meanings	The linguistic characteristics that increase ambiguity in messages and reduce the likelihood that individuals will fully understanding the messages within specific cultural contexts.

Distinct Functions and Meanings in the US

The distinct functions of language barriers observed in the US are (a) shaping perceptions of healthcare in the host country, (b) preventing individuals from actively participating in patient-provider interaction, and (c) inaccurately assessing individuals' specific knowledge and skills. Along with these functions, corresponding meanings are provided.

Shaping perceptions of healthcare systems in the host country.

When one is new to a society, it takes time and effort to become familiar with the ways the healthcare system works. Many participants reported that they first obtained information related to healthcare from their peers and people around them. When their language proficiency is quite limited, language-discordant patients are more likely to regard others with same linguistic backgrounds as a good source of information. Individuals learn the norms and values as well as misinformation about healthcare systems filtered through social interaction. Language barriers function in shaping individuals' perceptions about healthcare in the host society. Although this can be regarded as a shared function between US and Japanese societies, the influences of language barriers appear to be more powerful in the US environment.

Language barriers become distinctly problematic when individuals do not have opportunities for help in examining the extent to which information is accurate. As the previous sections addressed (see *Misinformation about healthcare access in the host society*), language-discordant patients develop distortions and misinformed views about healthcare systems in a host society through social interaction. The most commonly shared knowledge was about medical expenses, prolonged waiting time, and treatment effectiveness. Participants' narratives illustrated that these concerns enhance tendencies to resist visiting a doctor while at the same time developing ways to keep themselves healthy in order to prevent the need to access the healthcare system at all. For example, Taylor$^{US;2.5}$ avoids seeing a doctor in spite of having a chronic cough for a month by saying, "Everyone said that seeing a doctor in the US is extremely expensive. … I don't want to go. I don't have money." Having heard about the prolonged waiting time, Clay$^{US;4}$ is teaching himself about traditional Chinese medicine. Participants often expressed their hesitation to utilize the healthcare system by saying, "I will go to see a doctor if I am dying" (Brent$^{US;2}$) and "I will go if I am bleeding heavily, like, maybe with a car accident or something like that" (Kingston$^{US;8}$). These narratives indicate that the US environment requires the language-discordant patient to make a commitment to face financial burdens when accessing healthcare. On the other hand, resistance to seeing a doctor in Japan was substantially less. For example, Cara$^{J;2.5}$'s narrative illustrates less psychological distress that surrounds a visit to a hospital. She said, "Hospitals [and] clinics in Japan are like convenience stores[5]. People go there all the time and get service quickly. It's not scary at all." By indicating that she can try different hospitals until she finds a good one, Cherri$^{J;4}$ agreed, "I don't know if the doctors over there are skillful or not. So I just try going there and see how he treats me." These participants recruited in Japan can test their perceptions of healthcare systems and examine how exactly healthcare systems in Japan work without risking their resources too much.

The strong resistance to visiting a doctor in the US can eventually place heavier burdens on language-discordant patients. Chase$^{US;20}$ shared his perception about healthcare visits by saying, "My parents already spent a lot of money to send me here. I don't want to put too much burden on them. If it's something small, I don't want to go to a hospital." Moreover, Clay$^{US;4}$ commented about his plan for action if or when his self-treatment does not cure his symptoms. He said, "I may have to go to the ER because I don't want my symptoms to be too serious, but I also heard that it's extremely expensive." When having to visit the ER, instead of less expensive health treatment options, such perceptions of the US healthcare system can produce a much heavier financial burden than other, non-ER options. Their language barriers function as an obstacle to obtaining accurate information from credible sources (i.e., medical providers), while keeping these individuals open to the (mis)information shared within

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[5] Japanese convenient stores often represent clean, small stores. They are somewhat in between CVS and a store attached to a gas station in the US

their social network. These rumors then contribute to negative shared perceptions by increasing the degree of knowledge distortion.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers are *the shared challenges that highlight negative aspects of healthcare in the host society and prevent individuals from learning how the healthcare system really works*.

This function of language barriers delays individuals' access to professional medical treatments. If language-discordant patients have opportunities to visit hospitals both before and after they become aware of symptoms and learn how the system actually works, even with some mistakes, such distortion and misinformation about the healthcare system may be reduced.

Preventing individuals from actively participating in patient-provider interactions.

Maintaining interpersonal relationships requires substantial attention and effort. Participants shared their experiences of observing their conversational partners annoyed with the communicative challenges that their language barriers impose (i.e., misunderstandings and disfluency; Kedric$^{US;8}$). As reflected by Charles$^{US;7}$'s concerns that his attempts to take an active role as a patient may contribute to his receiving a lower quality of care (see *Identities as active, engaging patients*), language barriers increase difficulties that individuals face when actively participating in patient-provider interaction in attempts to maintaining positive relationships with medical providers.

Some of the participants recruited in the US noted, "There are a lot of healthcare providers we can choose from the network" (Cadence$^{US;27}$). On the other hand, similar to Charles$^{US;7}$, some participants addressed the perceived need to maintain positive relationships with healthcare providers. These participants perceive the number of the healthcare providers as limited, especially when they consider convenient access to the hospital and medical specialists. For example, as a graduate student in a US university, Brent[US;2] mainly relies on the health center at his university. To answer the question, “Do you think your doctors and nurses spend enough time with you to make sure that you understand the situation and that you have any questions addressed?” Brent[US;2] said, “Not everybody.” He continued,

> A few of them spent enough time but some of them were like so quick, professional. They just (laughs) asked quick questions. They do something quick. That’s it, but a few of them were really helpful in understanding what I am trying to say. And they would give you enough time, but not all, not all are like that. […] they were trying to, uh, finish their job as soon as they can. […] super quick, that’s what I meant because in some cases, I didn’t understand what they were trying to say and what I am supposed to do. Then, I have to ask again and again. But if there were like, um, a little bit slow and friendly …And if they, uh, would, uh, show me what to do from the, uh, very beginning, then it could have been done in one session, you know. And I could then … I didn’t have to go for multiple times … to ask them that same thing again. Because I didn’t understand them. So, it happens sometimes. (Brent[US;2])

Brent[US;2]’s having to visit a hospital multiple times to take care of the same issue reflects his efforts to maintain the patient-clinician relationships.

On the other hand, participants recruited in Japan did not express such concerns. Referring to her hospital visit to treat throat irritations, Cherri[J;4] said, “For me…, I don’t know how skillful the doctor is. I usually …[go], and if I feel positively, I will go back there. But if I don't see any effects, I will try somewhere else." These individuals also choose hospitals based on convenient access and medical specialties. However, because no concepts of health insurance networks exist in Japan, individuals are not limited by the type of health insurance they have.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers are *the communicative obstacles that contribute to an interactional dilemma: between one's desire to achieve personal goals and one's desire to maintain positive relationships with medical providers due to the limited healthcare network.*

Language-discordant patients in the US inevitably face higher pressure to maintain relationships with their healthcare providers based on the nearly infinite number of insurance companies and health insurance options, as well as the insurance network restrictions. The purpose of managed care is to make health treatment accessible and affordable to patients. And, underlying all other arguments is: limiting language-discordant patients from interaction (i.e., inter-*active* participation) inherently and substantially diminishes the concept of patient-centered care.

Mislabeling individuals' knowledge and skills.

When detecting non-native linguistic features in one's talk, native speaking individuals sometimes make accommodations in their communicative styles (i.e., speak more slowly, more loudly) and word choices (i.e., use of simple words and nominative phrases). Such accommodations reflect native speakers' positive intentions to make communication easier for the patient. However, language-discordant patients evaluate these accommodations both positively and negatively. For example, recalling her interaction with a hospital staff member, Kimberly$^{US;13}$ commented,

> I guess people assume that I wouldn't understand, so they like repeat their sentences sometimes, or repeat their words, so that I can understand, things like that. … I mean you don't have to repeat. I got that. (Kimberly$^{US;13}$)

Some participants received such accommodations positively. For example, Knight$^{US;10}$ noted that such accommodation reduces his hesitation to ask questions (see *Identities as respected, independent patients*). Such interpretations of these accommodations are predominantly subjective, that is from native speaking individuals' perspective, it is hard to know when or to what extent accommodations may be needed unless they have already established a relationship. When language-discordant individuals speak quite fluently, but with an accent, native speaking individuals may assume that accommodations are unnecessary or even rude.

Participants' narratives indicate that their language proficiency sometimes mislabels their knowledge and skills (see *Relationship between sociolinguistic skills and language proficiency*). As a result, these language-discordant individuals end up not receiving necessary accommodation and may not be fully informed when making medical decisions. Such imbalanced accommodation likely contributes to unpleasant surprises and a reduction in patient satisfaction.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers are *the fluctuating language skills that can mislabel/overgeneralize individuals' specific knowledge and skills along with social expectations in the host society. When mislabeled/overgeneralized by medical* *providers, the fluctuating language skills can prevent individuals from fully participating in patient-clinician interactions.*

This function of language barriers may limit the amount of accurate information individuals have to make decisions. If the individuals are uninformed about normative practices, including possible options or specific procedures, the language-discordant individuals cannot make proper decisions about treatment. It is vital, of course, that patients be fully informed when making decisions regardless of linguistic proficiency.

Distinct Functions and Meanings in Japan

Unlike the sociocultural and sociopolitical environments in the US, language barriers in Japan, along with the sociocultural and sociopolitical environments there, function in (a) shaping perceptions of health treatment in the host society, (b) creating additional challenges in receiving treatments when needed in emergency situations, (c) discouraging individuals from asserting culturally appropriate identities, (d) confusing individuals during provider-patient interaction, and (e) failing to address a lack of understanding of nuanced meanings and practices across cultures. Corresponding discussion about these barriers is provided in the following sections.

Shaping perceptions of health treatment in the host society.

Individuals share their experiences with one another and compare the effectiveness of treatments and the similarities among their treatments. Such exchanges help individuals find better health treatment and work to ensure that the quality of care is at the standard level in spite of the patients' level of language proficiency. Language barriers restrict such informational exchanges within the social network and shape individuals' perceptions of health treatment. Although this function may appear similar to "shaping perceptions of healthcare in the host society," language barriers in Japan place distinct obstacles for language-discordant patients to maintain health.

When a limited number of hospitals with interpreter services exist, language barriers are more likely to guide language-discordant patients to these same hospitals. By visiting the same hospitals for similar symptoms (i.e., allergies), it is likely that these language-discordant patients' experiences are similar. Stating that all Brazilian individuals are prescribed the same medicine regardless of the type and amount of information they share with healthcare providers, Becky[J;23] shares her prescribed medicine with her colleagues without seeking a doctor's or pharmacist's advice (see *Misinformation about healthcare access in the host society*). Different from sharing over-the-counter medicine, sharing medicines prescribed for a specific individual may produce an allergic reaction, drug interactions, and even fatal complications in others. Although pharmacists provide detailed information about each medicine, it would be challenging for language-discordant patients to confirm the ingredients, possible side effects, and warnings when written in Japanese. Under many circumstances, this would be no problem. However, the translatability of the 26-character English alphabet used in the US compared to the thousands of symbols used in written Japanese creates a much more complex challenge.

Despite the tremendous number of possible combinations in the English alphabet, the alphabet allows individuals to use a dictionary to translate words. However, the Japanese writing system requires higher skills to look up words in a dictionary. Japanese writing includes three types: *Kanji*, *Hiragana*, and *Katakana*. *Kanji* is borrowed from ancient China, and 2000 different Kanji characters are designated for everyday use. One Kanji can have multiple pronunciations depending on how the characters are combined with other Kanji or Hiragana characters. *Hiragana* refers to 46 phonetic letters developed based on Kanji. *Katakana* refers to 46 phonetic letters developed based on Hiragana; words written in Katakana indicate the words are foreign, such as borrowed words from other languages. Some of the participants said, "I can speak, but I cannot read Japanese" (Becky[J;23]), and "I can read Hiragana and Katakana, but I cannot read Kanji" (Carl[J;19]). For these individuals, the written information given to patients about their prescribed medicines are less useful in recognizing drug interactions or in determining that medicines prescribed are the same or similar to drugs provided for family members or colleagues with whom the patient may share prescription drugs. Language barriers, thus, sustain several distortions about medical treatment.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers are *the shared challenges that undermine the importance of understanding—not only receiving—the medical provider's instructions and may lead to possible drug complications.*

This function of language barriers may indirectly yet substantially affect patients' safety by encouraging self-treatment. It is not possible for physicians to directly control the medicine that patients consume. However, this possible harm should be recognized and the practice of sharing prescription medications must be avoided. Treating the patients as the individuals they are, reinforcing the instructions for treatment, and discussing the importance of not sharing the prescribed medicine likely would reduce the effects of language barriers.

Creating additional challenges in receiving emergency treatment.

Language barriers do not always prevent individuals from accessing treatment. Participants recruited in both countries indicated accessing healthcare would not be a problem as long as they know where hospitals and clinics are located. However, some participants recruited in Japan reported that they could not receive treatments in a timely manner because they did not know that they were supposed to come in an ambulance for receiving emergency treatments (see *Lack of knowledge about local procedures*). Even when they were aware of the local procedures, language barriers still negatively affected individuals' health management when seeking emergency treatments because by following the local procedures, language-discordant individuals are required to make a phone call to summon an ambulance.

Telephone conversations require higher language skills because telephone-medicated communication contains less contextual information, such as facial expressions, rate of speaking, etc., that may indicate a dire need for emergency treatments. Moreover, calling an ambulance requires individuals to articulate the specific location of the emergency, both in terms of accuracy and clear language. This problem is reduced when the incident happens at or near the place they live. Individuals typically know their own address and are able to articulate it without much difficulty. However, when the need for an ambulance occurs outside the individual's local area (i.e., the cases of traffic accidents; Papina$^{J;20}$ and Ulva$^{J;1}$), it is more difficult to identify the exact location. This problem is exacerbated because only major Japanese highways have names—neighborhood streets do not. Articulating the specific location takes more time, and is more nuanced and therefore likely to increase the time it takes to communicate the need for an ambulance and where it is needed, the risk of misinformation that may delay the arrival of the ambulance, and the individual's uncertainty whether or not they successfully arranged for an ambulance.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers are *the additional obstacles encountered by individuals in emergency situations when using (or attempting to use) the healthcare system in the host society*.

These additional language barriers restrict access to healthcare at the time of an emergency, presenting a potential for severe negative impacts on the quality of care for language-discordant patients in Japan.

Preventing individuals from asserting culturally appropriate identities as a patient.

Language proficiency and sociolinguistic proficiency may appear similar. However, they function differently, and individuals do not always develop these skills in the same ways, nor at the same pace. Thus, language proficiency itself does not always represent one's skills to assert culturally appropriate identities as a patient and, on the part of medical providers, to reduce challenges encountered by language-discordant patients.

Unlike the participants recruited in the US, participants recruited in Japan continually share the importance of meeting the cultural expectations when interacting with local Japanese individuals. Throughout social interaction, both inside and outside hospitals, individuals become aware that failure to follow cultural expectations can produce social sanctions such as unfriendliness. By applying interactive norms, many participants recruited in Japan said that politeness is the key to successful patient-provider interaction. For example, when talking about the tips to give to other language-discordant patients, Vincent[J;6.5] said,

> If they see you have a good attitude, the doctors will treat you well. They will give you good care, so it is important to be polite to them. Like greetings and the ways to come into the doctor's office. There are a lot of Japanese customs … Knocking [on] the door, we have to knock … two times, something like that. We need to follow these things well to be treated well. Many foreigners don't care about these small manners, but it's important. (Vincent[J;6.5])

In addition to such nonverbal behaviors, verbal communication also demonstrates one's politeness. By facing the difficulties in framing messages politely, language-discordant patients in Japan sometimes refrain from sharing their concern or disagreement with medical providers. Describing a disagreement with her doctor, Cherri[J;4] decided not to say anything and just moved to a different hospital (see *Identities as polite, agreeable patients*). Cherri[J;4] said, "Japanese is less direct than Chinese. I try not to say a lot because I don't know the [best] way to communicate my concerns well, you know, in [the] Japanese way." This example illustrates that the challenge was not caused only by a language difficulty, but also by the sociolinguistic skills needed to communicate in culturally appropriate ways in order to achieve personal goals and to avoid being regarded as impolite. As a result, these language-discordant individuals often do not express their questions, concerns, and preferences about treatment.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers include *the sociolinguistic barriers that reduce the* *likelihood that individuals communicate their concerns and needs without offending medical providers.*

Restricting individuals from expressing their concerns and specific preferences for the medical treatments interferes substantially with the concept of patient-centered care. Some of the participants who mentioned this challenge sought a different doctor with hope that a new doctor would provide the care they wanted. Finally, this process further delays treatments while adding unnecessary costs.

Confusing utterances from medical providers; misinterpretations by patients.

The Japanese language traditionally has integrated words from other languages. The basic meanings of these borrowed words remain, but Japanese individuals pronounce these borrowed words with a tweak of pronunciation. The Japanese language distinguishes words coming from other languages by writing them in *Katakana*. However, when speaking, the ways local Japanese individuals pronounce words do not differ too much whether they are originally Japanese words or borrowed/foreign words. Thus, language barriers involve confusion when interpreting what other people say. It requires substantial skill to discern the non-Japanese words based on how they are used in sentences.

Locating biomedical healthcare systems in medical schools means that healthcare providers in Japan use some English medical terms with a tweak of pronunciation when these words are embedded in Japanese sentences. Moreover, because English language courses are mandatory in Japan, these healthcare providers may be able to communicate with language-discordant patients in English. For example, coming from Canada, Carl$^{J;19}$ remembered an interaction with his healthcare providers, saying,

> A lot of the doctors in Japan, I notice… that they speak English. So, if we cannot communicate very well in Japanese, sometimes we switch to English, and either way, we were able to get the message across. Yes, we both feel that we can communicate … if we try a little bit harder. (Carl$^{J;19}$)

Upton$^{J;4.5}$ echoed,

> I had a high fever and they asked me questions. Um, it … like the communication was okay. It was part Japanese, part English. So whenever they could speak a little English they would and whenever I could speak some Japanese, I would. (Upton$^{J;4.5}$)

When I asked if there were any confusing moments when switching languages, Upton$^{J;4.5}$ said, "I could figure it out. Their pronunciations of English words were not perfect, but they tried, and when they were speaking in Japanese they spoke slowly." Because their medical provider differentiated the pronunciations, both Carl$^{J;19}$ and Upton$^{J;4.5}$ knew when their medical providers were speaking English and when they switched to Japanese based on how these medical providers pronounced the English words. It was less confusing for the patients. However, when medical providers do not speak English words at all but still use the borrowed words with the tweak of pronunciation, it became a problem. Edmond$^{J;5}$ was confused with the word *kensa* (investigation) with *cancer* (see *Confounding nature of language use*), and he went through heavy psychological distress for a prolonged time.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers are *the linguistic characteristics that prompt some individuals to guess the intended meanings in spoken language.*

This function of language barriers can reduce the quality of care by placing unnecessary psychological burdens on patients who go through treatment procedures. Also, a lack of consideration of the confounding nature of language use provides less valuable information for them to use when making decisions about possible treatment options. Without having and understanding ideas clearly expressed and containing accurate information about the possible treatments, it is difficult to achieve patient-centered care.

Increasing possible misunderstandings of nuanced meanings.

The Japanese social environment is generally categorized as a high-context culture (Hofstede, 1980). Thus, compared to the US environment, generally categorized as a low-context culture (Hofstede, 1980), the Japanese environment requires additional sociolinguistic skills for the language-discordant patients when interpreting messages. Many participants recruited in Japan reported difficulties stemming from the ambiguous nature of the Japanese language. Sharing information about difficulties she encountered in everyday conversation, Traci$^{J;2}$ said,

> At first, I found it challenging to understand what Japanese people mean because of their communication style. How to describe this… Japanese has specific words to purposefully increase ambiguity, such as 結構です (*kekkou desu*: ["excellent" or "I humbly decline it"]) and ちょっと (*chotto*: ["a little bit" or "I don't say much, but I don't go along with it"]. Taiwanese and Chinese usually

> speak very clearly. Yes or no. Japanese people are difficult to understand.
>
> (Traci$^{J;2}$)

As Traci$^{J;2}$ mentioned, 結構です (*kekkou desu*) and ちょっと (*chotto*) are the expressions with varying meanings depending on the context and the ways people use them. Vincent$^{J;6.5}$ also commented about the indirect communicative style (see *Interaction in unfamiliar contexts*). He said, "It's hard to tell if what Japanese people saying is true or not. […] they think about what other people feel when they are making some remarks about others." Vincent$^{J;6.5}$'s comment illustrates that such ambiguity comes into play especially when Japanese people avoid negative expressions. He said, "For example, Japanese people say 'this tastes good' even when they don't like the snacks. They just don't want to hurt others." Although Vincent says his medical providers tell the truth when it comes to symptoms and diagnoses, being aware of such ambiguity holds uncertainties. Both Traci$^{J;2}$ and Vincent$^{J;6.5}$ expressed the need to pay close attention to medical providers' nonverbal behaviors to avoid misunderstanding and confusion.

Along with this function of language barriers, a distinct meaning of language barriers emerged: Language barriers are *the linguistic characteristics that increase ambiguity in messages and reduce the likelihood that individuals will fully understanding the messages within specific cultural contexts.*

This function of language barriers can diminish the quality of care by increasing burdens on patients to actively engage within patient-clinician interaction. Language barriers require patients pay more attention to the meaning "between the lines," (i.e., the presumed intentions) rather than the literal information they use when making healthcare decisions.

CHAPTER FIVE: DISCUSSION

By making comparisons between the narratives gathered in Japan and those from the US, in terms of challenges related to language barriers, insights across sociocultural and sociopolitical environments are gained. The objectives of this study were three fold. First, to investigate the ways in which language barriers create challenges in processes related to accessing healthcare. Second, to examine the nuanced meanings and functions of language barriers in healthcare settings in Japan and the US. And, third, to examine the ways in which differences in meanings and functions of language barriers impact the quality of care. Language barriers in healthcare settings carry (a) functions and meanings that span cultures and (b) culture- and environment-specific functions and meanings in Japan and the US, affecting the quality of healthcare in various ways.

The following paragraphs first provide the insights gained through comparative studies on language barriers in different sociocultural and sociopolitical environments. Then, the answers for each research question are discussed, demonstrating how these insights contribute to the literature in the area of language barriers in healthcare settings, with specific focus on access barriers and barriers in patient-clinician interaction, followed by an analysis of health disparities.

Insights Gained Through Comparative Studies on Language Barriers

In addition to addressing each of the research questions, the comparative process yielded some insights about language barriers. The narratives collected in Japan and the US show considerable similarities and differences in terms of (a) how individuals understand their language barriers in the host societies, and (b) the ways their narratives depict their perceptions of host receptivity.

Language-discordant Individuals' Understandings of Language Barriers

As demonstrated by the narrative data and analysis presented in the previous chapter, participants in both countries indicated an awareness of the impacts of their language barriers both inside and outside patient-clinician interaction. Participants recruited in Japan and the US mentioned that they observed their language barriers became cumbersome for their interlocutors, including their local friends, acquaintances, and healthcare providers. The perceived burdens placed on native-speaking individuals are fundamentally similar, whether the individuals live in Japan or the US. From this perspective, the sociocultural and sociopolitical environment does not place significant influences on the functions and meanings of language barriers, confirming the concept of *universality* in language barriers (Segalowitz & Kehayia, 2011). Nonetheless, such a concept is not applicable for the overwhelming number of situations. The participants recruited in Japan shared their experiences of being corrected about their language use, whereas narratives shared by the participants recruited in the US do not include similar experiences. A possible explanation for this is the difference in weight given to following normative behavior in the two environments. In Japanese culture, individuals who fail to uphold cultural norms are frequently labeled rude and/or blunt, and they may experience social sanctions. On the other hand, in the US, individuals who do not follow normative behaviors may be regarded as outsiders but may not directly face social sanctions. Politeness is one of the common aspects that language-discordant individuals learn and develop through social interaction, and individuals who are learning the Japanese language are often taught when and how to switch between informal and formal/polite language, a nuance that is otherwise very difficult to learn (Freed, 1995).

Though the comparative process, it also became noticeable that the ways individuals perceive their own language barriers were different depending on the host society: Japan or the US. When sharing their experiences of having miscommunication with their healthcare providers, a few participants recruited in Japan (*N*=4) attributed the miscommunication and/or unsatisfactory treatments to their own lack of language proficiency (i.e., Carol$^{J;6}$ and Vincent$^{J;6.5}$). This tendency was observed from, primarily, participants with higher levels of education (individuals living in Japan as graduate students, for example). Alternatively, participants recruited in the US often attributed the cause of misunderstandings and/or unsatisfactory treatment to their healthcare providers' lack of support or willingness to accommodate language differences. By noting that their medical providers do not listen to or try to understand them, these participants expressed dissatisfaction and frustration. None of the participants recruited in the US attributed the miscommunication to their own language skills regardless of their educational achievement.

Needless to say, this tendency is not observed from every participant recruited in Japan. Making a generalizable claim is not a purpose of this study. However, it is important to note that participants' attitudes toward their own language barriers differ even when they come from individuals within the same culture. In other words, some Chinese individuals living in Japan attributed the miscommunication they experienced in patient-clinician interaction to their own low language proficiency, while Chinese individuals living in the US attributed the miscommunication to the lack of accommodation they receive. This may reflect the influence of acculturation and the social environment in which these individuals are immersed. In Japan, humbleness and submissiveness are perceived as sophisticated and polite both inside and outside the patient-clinician relationship. Such sociocultural environments have taught these individuals that taking humble roles benefits them eventually. For example, by emphasizing the importance of following social norms, Vincent$^{J;6.5}$ noted, “If they see you have a good attitude, the doctors will treat you well. They will give you good care, so it is important to be polite to them.” By following social norms and acting consistently with them, language-discordant patients avoid facing social sanctions. On the other hand, in the US, the dominant practice is patient-centered care. By empowering patients, the amount of autonomy is balanced with the responsibilities that patients face. Sociocultural environments, such as those in the US, have conditioned language-discordant patients to behave and speak as individuals with autonomy in order to gain respect; it is not considered “normal” in US culture(s) for adults, especially, to readily accept blame.

Perceived Host Receptivity

Among multiple aspects of host receptivity, resource allocation, and interpersonal interaction with local individuals are addressed in the participants’ narratives. Somewhat surprisingly, narratives about the role of medical interpreters and the occasions when they are needed do not differ based on the societies in which they live. One participant recruited in Japan (Brianna$^{J;20}$) identified medical interpreter service as a crucial factor when accessing healthcare. She uses the service every time she visits the hospital. A few other participants (i.e., Becky$^{J;23}$ and Bart$^{J;20}$) mentioned the possible use of medical interpreters, but indicated that the prolonged waiting time for the medical interpreter to arrive reduced the use of interpreters. Except for these participants mentioned above, most participants in both the US and Japan either did not have opportunities to use medical interpreters, or they were not notified about the availability of the service, including the times when interpreters typically visit the emergency room. The recruiting criteria for the current study were not focused on the use of medical interpreters. Thus, it is not reasonable to make a strong claim about the implementation of medical interpreters. However, several participants' narratives reflect the lack of widespread implementation of medical interpreters in the US and the growing but not widely recognized use of interpreters in Japan. Unlike the perceived resource allocation (i.e., whether or not individuals have relatively easy access to medical interpreters and the government's help with health insurance), participants demonstrated that interpersonal interaction with local individuals is more visible and played a central role for these participants in managing their health.

Due to the strong history of immigration in the US, it was predicted that host receptivity in the US would be higher compared to that found in the Japanese environment. Language-discordant patients' narratives, however, illustrate that perceived host receptivity in the US is not necessarily higher than that found in Japan. Participants recruited in Japan reported that local Japanese individuals are generally polite and kind, they indicated only subtle forms of discrimination. The subtle forms of discrimination include (a) being stopped by a police officer to check if the bicycle belongs to the individuals (Peace$^{J;4}$) and (b) recognizing both verbal and nonverbal differences in talk, such as volume and pitch (Corrie$^{J;6}$), as well as word usage (Becky$^{J;23}$). Participants recruited in the US described local American individuals as kind, but they also reported both verbal and nonverbal discrimination in their narratives. The forms of discrimination reported by these participants are more ostensible compared to those reported in Japan; blocking the conversation and frowning were specifically mentioned (i.e., Chaz$^{US;7}$ and Brent$^{US;2}$). One possible explanation for this difference may reflect the characteristics of social environments in Japan and the US. In the Japanese social environment, discrimination toward foreigners and social isolation for language-discordant individuals exists, and the local individuals in Japan are somewhat shy to outsiders (Froese, 2010). This is a type of xenophobia. Moreover, the collectivistic nature of the Japanese social environment (Hofstede, 1980) may make discrimination less prominent based on the central tenet of maintaining social harmony. In comparison, the US, an individualistic society (Hofstede, 1980), places less emphasis on in-group and out-group boundaries and less emphasis on social harmony.

The instances of discrimination described by participants are correlated with psychological and physical distress (Gee, Ryan, Laflamme, & Holt, 2006; Williams & Mohammed, 2009). By perceiving more severe forms of discrimination (i.e., blocking the conversation and frowning), language-discordant individuals in the US are more susceptible to negative mental and physical effects, contributing to adverse health conditions for these patients.

Related to this notion is the idea of the unequal burdens placed on language-discordant individuals whose racial and ethnic backgrounds are different from those of the medical practitioners. In Japan, perceived discrimination was mentioned by participants from China, Philippine, Brazil, Peru, and Pakistan. This notion reflects not only the idea of 脱亜入欧 (*datsua-nyuuoh*) “leaving Asia and entering Europe” (Sato, 2009), but also the changes Japanese society has experience along with an increased influx of foreigners and language-discordant individuals (Froese, 2010). In addition to the language-discordant individuals coming from Asian countries, discriminatory attitudes were directed toward individuals coming from South America who are categorized as members of the working class. Individuals from the US and Canada did report subtle differences in treatment (i.e., being stared at and social isolated; Ursala$^{J;3}$ and Upton$^{J;4.5}$); however, the individual narratives do not reflect perceived discrimination. In the US, participants coming from China, Korea, Bangladesh, and Venezuela reported perceived discrimination. These individuals reported unfriendly treatment (i.e., Colby$^{US;4}$), aggressive disruptions in conversation (i.e., Chaz$^{US;7}$), and even being denied treatment (i.e., Kedric$^{US;4}$). Alternately, the narratives shared by language-discordant individuals in Italy and Norway do not reflect such discrimination. Having been influenced by historical contexts, local individuals in the US are less tolerant with language-discordant individuals from non-European countries (Wiley, 2014). The previous chapter re-confirmed that unequal burdens on language-discordant individuals persist.

These insights enrich the contexts in which future examinations of language barriers in healthcare settings are conducted. In the following sections, findings related to the research questions are provided, along with the theoretical framework of pathways and processes among language barriers and health disparities. Finally, an attempt to explain the broader relevance of the fieldwork is presented.

Language Barriers in Healthcare Settings

The pathways and processes among language barriers and health disparities are examined along with the diagram that I developed based on the literature review (Terui, 2015). Although language barriers are sometimes seen as simplistic, practical problems (see the notion of "universality" in Segalowitz & Kehayia, 2011), participants' narratives show that language barriers present both cross-cultural and culture-specific challenges. The previous chapter illustrated in depth the challenges brought about by language barriers in both access to healthcare as well as the processes of obtaining healthcare. The following sections address the pathways that language barriers follow in contributing to health disparities.

Access Barriers

First, findings identified here include both direct and indirect pathways exist among language barriers and obtaining healthcare services. Direct pathways are those in which individuals describe difficulties in accessing healthcare as being *predominantly* because of low health literacy. The following sections demonstrate some of the ways language barriers contribute to lowering the individuals' effectiveness.

Direct pathways

Narratives collected both in Japan and the US illustrate that language-discordant individuals have skills for obtaining the information needed to make decisions about when they should see a doctor and how to go about it. For example, participants recruited in Japan said that they obtained healthcare related information, such as the location of hospitals and clinics and their office hours, mostly from the Internet, as well as friends and local Japanese individuals with whom they are acquainted. Participants recruited in the US, on the other hand, reported that they obtain more specific and detailed information about doctors, medical facilities, and various treatments from people within their social networks (e.g., gathering information and asking questions on the Internet using the Chinese language, Callie$^{\text{US;4}}$; calling a doctor in Venezuela, Vallen$^{\text{US;2}}$). The information these individuals obtain often addresses the severity of symptoms, and when to seek medical treatment. For participants in the US, these decisions tend to be serious in large part because of the perceived financial burdens, as mentioned in many narratives.

When reporting their experiences in accessing healthcare, some participants in both countries identified the process for making an appointment as inconvenient and different from the methods in their own countries. Although the procedures for making appointments often present additional obstacles for language-discordant patients seeking healthcare, the participants did not recognize that their own language barriers create substantive challenges in this process. In fact, the participants recruited both in Japan and the US reported that they easily access healthcare when they face a medical emergency because, as they attributed, (a) they know where hospitals and clinics are located, and (b) they believe that they can receive treatment as long as they can get themselves to the hospital, clinic, or emergency room. However, some participants recruited in Japan explained that the lack of knowledge about local procedures accentuates the adverse influences of language barriers (e.g., Papina$^{\text{J;20}}$ and Ulva$^{\text{J;1}}$'s attempt to reach to the emergency room), positing a critical challenge to accessing healthcare, especially in an emergency.

Similar to the notion that language-discordant patients tend to be unaware of environment-specific diseases, attributed by some to a lack of social interaction with local individuals (Ndiaye et al., 2011), language barriers tend to require additional effort to learn local procedures needed to utilize healthcare (Wakimoto et al., 2013). Frequently language-discordant patients only recognize the need to obtain such information after they face an emergency situation (Wakimoto et al., 2013). Participants recruited in both countries showed they have a high degree of skills needed to obtain health information to guide their decisions, however this information is not always sufficient to receive medical treatment quickly (i.e., in an emergency situation). In this way, language barriers influence the level of effectiveness by adding challenges in obtaining and utilizing health-related information. Unless the social and political environments have patient-friendly regulation that requires hospital accept and treat patients with emergency needs, regardless of citizenship, race, health insurance coverage, ability to pay, or other categorization, language barriers will continue to have negative effects in the form of environment-specific access barriers to healthcare.

Indirect pathways

In addition to the direct pathways, findings herein demonstrate the importance of considering indirect pathways when examining access barriers to healthcare. Participants through their narratives indicate that interpersonal interaction and interpersonal relationship management largely affect access to healthcare. In particular, language barriers (a) contribute to developing distorted knowledge and (mis)understandings of healthcare in the host society, and (b) impose additional obstacles in managing interpersonal relationships within an individual's limited social network.

Participants recruited in both countries reported that language barriers contribute to the formation of distorted knowledge and false, incomplete (mis)understandings about the healthcare systems in host societies. Participants recruited in Japan said that they exchange their perceptions and experiences of receiving medical care with other language-discordant individuals in their search for high quality healthcare. As a result, some participants question the effectiveness of medical treatment and the individualized care. The perceived lack of difference among people who share similar symptoms contributes to the belief that individuals with similar symptoms can share prescribed medicines without professional consultation. This belief can produce adverse consequences, including allergic reactions and drug interaction and other complications, and may contribute to poor health outcomes.

Participants recruited in the US also reported that they exchange ideas and experiences quite actively with people in their social networks, including those both within and outside of a particular geographic location. Shared concerns include prolonged waiting time, the effectiveness of medical consultations, and possible medical expenses. Such interpersonal interaction influences perceptions of the healthcare system in host societies especially when (a) the individuals find others with similar cultural and linguistic backgrounds close by, and (b) the individuals are relatively new to the health system. Such shared perceptions are powerful in shaping one's intentions to access healthcare. Simultaneously, it is important to note that such perceptions contribute to various levels of barriers depending on the sociopolitical environment involved. Participants in Japan described their experiences of accessing healthcare as less burdensome whereas participants in the US described accessing healthcare quite negatively. Shared understandings among participants in the US include the idea that individuals must pay a couple of thousand dollars even when they have health insurance.

The predominant difference in the impact of these distortions and misunderstandings of healthcare systems in the US and Japan is whether or not these language-discordant individuals can dispel distortion and misunderstandings by obtaining firsthand experiences through using the healthcare system in their host societies. Having correct information about of the local healthcare system is critical for gaining proper access to healthcare. As shown in the previous chapter, Japanese environments have fewer obstacles for correcting information than in the US, in part due to the ways the healthcare system is implemented in a given society. Thus, this is one of the environmental-specific barriers.

The second type of indirect pathways among language barriers and access to healthcare is imposing additional obstacles in maintaining interpersonal relationships within the limited social network. As stated in the previous section, participants in this study have higher-than-average skills in gathering health-related information, having the ability to properly assess when they need to see a doctor. However, such positive effects of high degrees of health literacy are sometimes diminished in light of the possible burdens imposed on other people. Researchers (e.g., Lukes & Miller, 2002; Pérez-Escamilla et al., 2010) have noted that immigrant and minority populations tend to view a lack of visible symptoms or noticeable discomfort as less crucial in terms of seeking healthcare, thereby placing little weight on preventive care. Some individuals indicate that symptoms are not critical enough to place burdens on other people by prioritizing harmony in interpersonal relationships (e.g., not seeing a doctor for arm numbness, Bart$^{J;20}$) and/or avoiding trouble or inconvenience for others (e.g., asking a friend to take a day off work, Edmond$^{J;5}$). Paul$^{J;24}$'s examples also show that even when individuals want to visit hospitals/clinics, they sometimes have to wait for their friends' or family members' availability (to accompany them as an interpreter) to schedule an appointment for medical treatment. Relationship and identity management can be costly, particularly when individuals have close and limited social networks, as is often the case with immigrants in general, and recent immigrants in particular. Others may perceive it is more beneficial to reduce face-threatening situations (e.g., to be seen as independent, capable, and intelligent, Brent$^{US;2}$). When facing the social costs of interpersonal communication, having high health literacy does not always guarantee that these individuals can successfully manage their health conditions, especially in the emergency context.

The impacts of interpersonal relationship management on access to healthcare systems constitute a contribution to current literature about health literacy. Previous literature describes possible reasons that language-discordant patients tend to receive delayed diagnoses. Being unaware of the need for treatment in part due to the invisibility of symptoms (Paasche-Orlow & Wolf, 2007) is one reason offered. The current study offers further explanations about the ways language-discordant individuals fail in accessing healthcare, particularly in both emergency and non-emergency situations.

Process barriers

This study is an attempt to deepen understanding of the ways language barriers influence patient-clinician interaction. Researchers have suggested a lack of language skills explains (a) symptoms/concerns and a lack of understanding treatment instructions and diagnoses; and (b) contested illness and other cultural concepts as fundamental barriers in exchanging information within language discordant patient-provider interaction (e.g., Conrad, 2008; Conrad & Barker, 2010; Woloshin et al., 1995). The findings here not only reconfirm the existence of these types of barriers, but also identify other obstacles by highlighting the multidimensional nature of language barriers in healthcare settings. In the following sections, the findings presented in the previous chapter are further discussed by underscoring the ways this current study contributes to the literature.

First, the previous chapter supports the well-established notion that language barriers produce less effective patient-provider communication due in large part to the patients' lack of linguistic abilities in expressing their concerns, symptoms, and preferences for treatment, as well as their abilities in understanding the information given by their medical providers (i.e., Flores, 2006; Suurmond & Seeleman, 2006). These findings demonstrate that such difficulties in patient-provider interaction do not always reflect language-discordant patients' lack of language proficiencies. The narratives in this study indicate that individuals with high levels of language proficiency still encounter substantial miscommunication in sharing information that is less accurate than it may appear. Some participants recruited in both countries reported that they *think* they know how to express their symptoms, but they also wonder whether or not the words they use are accurate. This happens when these individuals used *learned* languages rather than *acquired* languages in patient-provider interaction (Kelsie$^{J;14}$, Colby$^{US;4}$, and Valerie$^{US;2}$). When medical providers observe language-discordant patients speaking fluently and their explanations make sense to the medical providers, the medical providers may not think about possible misunderstandings. It is crucial to note that being able to say specific words, even with excellent pronunciation, does not always mean that individuals understand the nuanced meanings the words carry (Maddux, 2002). In order to express one's symptoms and provide information about how they feel in culturally appropriate and understandable ways, individuals must be able to do more than just name the symptoms (Holland & Quinn, 1987; Williams, 2000).

When learning languages, individuals consciously compare and contrast the new input (i.e., vocabularies and grammar) with what they already know. Then, they make metalinguistic knowledge, which allows them to (a) objectify language as processes and artifacts and (b) explain and transfer the linguistic knowledge across multiple languages (Krashen, 1982). For most of the adult language learners, individuals' process of using languages requires conscious attention (Krashen, 1982). When individuals develop their language skills while living in a host society, the learning process turns toward *acquired*. The individuals make conscious efforts to monitor their use of language in an effort to improve their speaking performance (Rebuschat & Williams, 2012). Thus, it is possible for these language-discordant patients to significantly increase their language proficiency throughout their stay in the host society. However, because healthcare settings place individuals in less familiar contexts, their language proficiency in the healthcare context tends to remain *learned* for a longer period of time. To accurately describe symptoms, the individuals need *acquired* language skills within healthcare settings.

Similarly, having a high degree of language proficiency does not always lead to better care. When a healthcare provider perceives their patient has a high degree of language proficiency may contribute to inaccurate assumptions about language-discordant patients. Some participants recruited in the US shared that local individuals in the US may not acknowledge language-discordant patients' need for information and knowledge--local healthcare providers sometimes presume knowledge and understanding of procedures and treatment based on the patient's language proficiency. Participants (i.e., Isabelle$^{US;8}$) who have lived in multicultural, multilingual communities (i.e., Miami, Florida, New York City) describe this challenge in their narratives. This example suggests that large, multilingual and multicultural communities hold differing expectations and assumptions for language-discordant patients when compared to smaller, less diverse communities. This particular challenge is mentioned only by participants recruited in the US, underscoring the notion that each environment, even within the same country, contributes to differing influences of language barriers on experiences of health management, as well as the quality of patient-clinician interaction.

Furthermore, the Japanese environment provides unique advantages and challenges for language-discordant individuals whose native language is English. A few participants recruited in Japan have English as their native language, and their narratives describe influences of language hegemony and language hierarchy. Their narratives illustrate that, to a certain degree, language-discordant patients expect their medical providers to be able to communicate in English (i.e., “the doctor didn’t speak English at all,” Edmond$^{J;5}$ and “the only English word he said the entire time was he put me through my x-ray and he said, ‘That’,” Ursala$^{J;3}$). Such an expectation was not shared among other participants in Japan nor those recruited in the US: None of them blamed the medical providers’ language skills in patients’ native language (i.e., Chinese, Vietnamese, and Spanish, etc.) as being the cause of miscommunication. Such a hegemonic power of the English language creates unique interactional dynamics in patient-clinician dyads.

Moreover, as the example from Edmond$^{J;5}$’s narrative illustrates, English-speaking individuals may attempt to guess the conversational contents based on the assumptions that some of the medical terms used in Japanese are borrowed from the English language. Knowing this linguistic characteristic allows individuals to guess some of the words that belong to the “borrowed words” category, which assists individuals with low language proficiency to grasp a rough idea about what is being said. However, such a strategy can easily confuse individuals with low language proficiency in Japanese. In globalized societies, borrowed words are becoming more common. However, as Edmond$^{J'5}$’s case illustrates, environment-specific challenges also exist.

The difficulties in exchanging information in language-discordant patient-clinician interactions are well known (Suurmond & Seeleman, 2006). Because language-discordant patients are aware of the possibilities that their use of language can create miscommunication, they often utilize medical interpreters when they are available (Jacobs, 2008; Jacobs et al., 2001). However, when a medical interpreter is not easily accessible, some participants recruited in the US describe the strategies they use to minimize mistakes. For example, some language-discordant individuals provide minimal information to their healthcare providers. These individuals explain that the more they speak, the more mistakes they will make. Thus, the concerns about possible consequences of making mistakes in terms of one's self-image (e.g., being perceived as incompetent and stupid) along with possible financial burdens can make these individuals hesitant to articulate their health-related concerns. When patients limit the information, it is possible that they do not provide necessary information for the medical providers to provide accurate diagnoses. When medical providers perceive they are not obtaining enough information because of language barriers, they may provide diagnoses and care without much input from the patients (Suurmond & Seeleman, 2006). This pattern supports the physician-centered care perspective, and likely contributes to reduced patient satisfaction. The strategy of providing minimal information was observed in the US, but not in Japan. This may reflect the shared concern about high medical expenses that are sometimes a consequence of miscommunication. In this way, language barriers can reduce the amount and quality of health information exchanged, potentially contributing to patient dissatisfaction (Bauer, Rodriguez, Quiroga, & Flores-Ortiz, 2000).

As discussed above, language proficiency alone does not overcome the adverse effects of language barriers; symptoms and concerns must be addressed in culturally appropriate ways in the host countries (Abbe et al., 2006; Andrulis & Brach, 2007; Fernandez et al., 2004). Desirable and appropriate identities are socially constructed, and individuals with language barriers encounter challenges when asserting various identities depending on (a) the cultural norms within their host societies, and (b) the degree to which these cultural norms require that medical providers accommodate patient language abilities. For example, through the socialization into Japanese culture, participants have learned that politeness and agreeableness are key for successful communication and relationship maintenance, particularly in interactions with individuals who have high social status. In Japan, a high-power-distance culture (Hofstede, 1980), doctor-patient relationships are more hierarchical than those in the US, and further, Japanese culture emphases deference to medical providers' expertise and decisions (Claramita, Utarini, Soebono, Dalen, & Vleuten, 2010; Nilchaikovit, Hill, & Holland, 1993). Participants have learned that disagreeing with a doctor or showing superior knowledge about a specific treatment (e.g., knowledge about traditional Chinese medicine, Cherri[J;4]) are sometimes regarded as disrespectful. As a result, participants often do not express disagreements or concerns in part because these participants explained they do not know the culturally appropriate ways to deliver such messages. Participants' narratives illustrate that it is often not deficient language skills that prevent them from expressing disagreements, concerns, and preferences. Rather, the challenge is whether or not they can deliver these messages in a culturally appropriate manner, to avoid offending medical providers.

In the US, on the other hand, participants with various cultural backgrounds confront challenges by asserting active and engaging identities in culturally appropriate ways. Patient-centered care is not the norm in Asian countries, certainly not to the same degree as patients in the US experience (Lee, Seow, Luo, & Koh, 2008; Moore, 2008;

Nilchaikovit et al., 1993). Narratives from participants recruited in the US describe struggles finding the nuanced line between active patients and annoying patients, while acknowledging possible burdens their language barriers place on medical providers. Therefore, an individuals' achievement in terms of language *acquisition* is not as important as the process of language *socialization* through which individuals learn how and when to speak and how to behave as a competent member of society (Goodwin & Duranti, 1992). Failure to perform socially appropriate or desired identities can contribute to social punishment (e.g., having less friendly interactions, or being regarded as cumbersome). Such social punishment can be particularly troublesome for language-discordant individuals living in the US especially when considering (a) the limited number of doctors who participate in a specific healthcare plan, and (b) the limited social resources that typical language-discordant patients have (i.e., access to transportation). As strategic agents, individuals with language barriers attempt to merge into the contexts and cultural practices of the host culture (Kim, 2001). Whether or not individuals adopt and utilize contextualization cues in an appropriate manner is crucial to gaining in-group status (Gumperz, 1982)—a status that influences the benefits they receive from society. However, as illustrated in the narrative shared by Charles$^{\mathrm{US;4}}$ (for asserting active, engaging identities) and Cherri$^{\mathrm{I;4}}$ (regarding the benefits of asserting polite and agreeable identities), knowing *what* the desirable identities are in any given specific sociocultural environment does not always mean that these patients know *how* to perform and assert these desired identities. Such cultural orientation differs depending on the sociocultural environment of the language-discordant patient. Therefore, language barriers present environmental-specific challenges.

Findings in this study also illuminate the operationalization of language-discordant patients in research studies. Previous researchers (e.g., Karliner et al., 2008; Zandieh et al., 2008) divide language-discordant patients into two groups: individuals with high levels of language proficiency (the ones who answered “well” in the survey) and those with lower language proficiency (based on self-reports as indicated). Such either/or categorizations are inherently oversimplifications—they not only fail to recognize the nuanced, multi-phased nature of language proficiency, but also ignore the evolving and fluctuating nature of language skills. Participants recruited in both countries, especially the ones with higher education, reported they manage to successfully deliver their messages in most cases. However, the narratives also reveal that their language skills fluctuate over time, especially when they seek health treatment and experience patient-clinician interaction (i.e., when being sick, Ken$^{US;5}$; when being overwhelmed with unfamiliar symptoms, Claudia$^{US;5}$). Thus, participants’ self-reports about their language proficiency does not guarantee that participants’ performance and clinician-patient interaction are measured, evaluated, or interpreted accurately. Even when language-discordant patients report their language proficiency as high, there is no guarantee that these individuals’ language proficiency remains the same in healthcare settings. For this reason, it is necessary to further examine actual language-discordant patient-clinician interaction (rather than or in addition to the use of self-reports).

Finally, these narratives support the idea that language barriers do not always function negatively in healthcare settings. Previous literature has depicted language barriers as obstacles in clinician-patient communication (e.g., Fernandez et al., 2011; Jacobs et al., 2006; Street, 1992). However, the findings here show that language barriers do not always provoke weak and inferior patient roles. Individuals with language barriers sometimes strategically use their non-native status as a resource useful in meeting healthcare goals (Terui, 2012). For example, by accepting the imposed dependent identity as a “baby,” Knight[US;10] adopted a way to play an active and engaging patient role without worrying too much about being seen as annoying. By re-framing the nature of language barriers, it is possible for patients to be more comfortable when engaged in language-discordant patient-clinician interaction. As strategic actors, individuals actively negotiate and shape contexts to further their goals (Goodwin & Duranti, 1992). Rather than influencing the context from deeper aspects of cultural and social patterns in host societies, individuals re-arrange and manage the context on the local level.

As this study shows, language barriers take on a variety of meanings and functions within sociopolitical and sociocultural environments. It is necessary to consider these influences when developing and suggesting intervention, to deepen understanding and ultimately to improve the efficiency and accuracy in language-discordant patient-clinician interaction. To this end, a new definition of language barriers in healthcare settings is provided below.

Re-conceptualizing Language Barriers in Healthcare Settings

Despite an overwhelming number of studies about language barriers in healthcare settings, researchers have seldom examined the actual definitions of language barriers in healthcare contexts, as if language barriers in these settings are simple, self-explanatory, practical problems. The literature review conducted by Segalowitz and Kehayia (2011) is one of only a few studies focused on defining language barriers in healthcare settings. However, by emphasizing the importance of examining direct and salient influences of language barriers in healthcare settings, their proposed definition did not accommodate the multidimensional, complex nature of language barriers in healthcare settings. By reflecting on the findings herein, a new definition of language barriers in healthcare settings is proposed:

> *Language barriers in healthcare settings* are language-based obstacles to successful access to medical treatment, especially in emergency situations, and to effective interaction with medical providers when discussing and negotiating possible healthcare treatment. From the perspective of medical providers, language barriers can have visible consequences (e.g., clinical results) and invisible consequences (e.g., avoidance of/ hesitation for following up visit) for patients' health management.

Given the centrality of language in human interaction (Gregg & Saha, 2007), it is challenging to detangle and examine influences of language barriers, especially when the influences are indirect and implicit. However, because language barriers affect the individuals' health management patterns and quality of care in myriad ways, researchers and policy makers must not ignore these indirect and implicit influences when conducting research or when considering changes in policy.

Health Disparities and Language Barriers

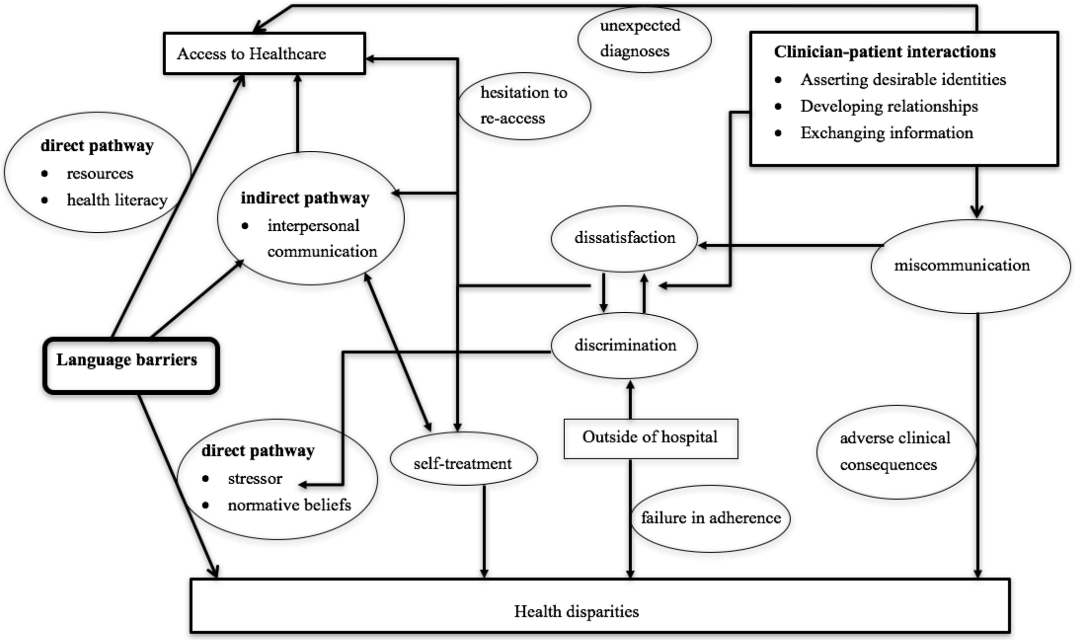
In this rapidly globalizing world, it is extremely difficult, if not impossible, to eliminate language barriers. Thus, our goals are to identify better ways to overcome barriers. Based on the findings herein, a revised diagram of pathways and processes among language barriers and health disparities is presented below (Figure 3). Both cross-cultural/cross-environmental and environment-specific pathways are included in the diagram to better reflect the multidimensional aspects of language barriers. The factors identified as contributing to health disparities among language-discordant patients are indicated with oval shapes in the figure. The following sections address the revisions made to the diagram. As shown in the diagram, the pathways among language barriers and health disparities are neither linear nor simple.

First, the pathways among language barriers and healthcare access, direct and indirect pathways are differentiated. These findings demonstrate the need to consider indirect pathways when evaluating healthcare access. Indirect pathways among language barriers and healthcare access, distorted knowledge and misunderstandings of healthcare systems, as well as perceived burdens imposed on interpersonal relationship management are reflected in the diagram as “interpersonal communication” on the upper left side.

Second, these findings show that language barriers contribute to challenges when asserting desirable identities, exchanging information, and when developing relationships. Even when no obvious miscommunication is present in patient-provider interaction, these challenges may contribute to a sense of discrimination and dissatisfaction described by the participants. This sense of discrimination and the sense of dissatisfaction differ in their nature; thus, they are differentiated on the diagram by placing them in different ovals. Based on participants’ narratives, the sense of discrimination and the sense of dissatisfaction influence each other. These feelings appear frequently in the narratives of immigrant and minority individuals and contribute to developing (a) misinformation about healthcare access in the host society, and (b) self-treatment rather than professional medical care in the host society. The sense of discrimination, consistent with previous literature (e.g., Gee et al., 2006) functions as a stressor and likely contributes to both mental and physical health problems.

Figure 3: Revised Diagram of Pathways and Processes among Language Barriers and Health Disparities

Ovals indicate factors that contribute to language-discordant patient experiences of health disparities.



Limitations of the Study

A primary limitation of this study is the fact that only two languages were used for data collection. With little funding, the languages used for data collection were limited to Japanese and English. Therefore, individuals without sufficient skills in communicating in either Japanese or English were not included in this study. Some individuals with quite limited language skills were invited to the study, but refused to participate, indicating they would not be able to share much information. Incorporating researchers or research assistants with different linguistic and cultural backgrounds into a research team would be beneficial in enhancing understanding of these phenomena. By having other languages available for in-depth interviews and data analysis, (a) participants could share their narratives in their native language, and (b) researchers would be able to further investigate nuances of language use and strategies for overcoming barriers related to language.

Another limitation is the issue of generalization. The current study involves an examination of individuals' living experiences in Japan and the US, however the findings are not generalizable to other locations in Japan (e.g., locations with many fewer immigrants and minorities, such as Aomori or Akita prefectures) or in the US (e.g., locations with many more immigrants and minorities, such as New York City or San Francisco). Locations with different immigrant and minority populations would likely provide a larger variety of language barriers and remedies for them in healthcare settings.

Directions for Future Research

This study provides insights into the literature focused on language barriers in healthcare settings. However, this study addresses only a few aspects of these phenomena. As mentioned above, interviews were conducted either in Japanese and/or English, leaving out individuals without language proficiency in one of these languages. Examining the experiences of these individuals without language proficiency in Japanese and/or English would likely provide varying, potentially useful perspectives and better understandings about the ways language barriers influence access and processes in health management.

Language barriers in healthcare settings involve not only patients with language barriers, but also medical providers including medical interpreters. Because patient-clinician interaction is not one-way communication, this phenomenon should be further studied from a variety of perspectives. It would be beneficial to examine (a) the ways medical providers perceive language-discordant interaction, (b) the strategies adopted by medical providers when assisting patients with language barriers, and (c) the possible consequences of these employing these strategies. To develop more information about the consequences of these strategies from both the providers' and patients' perspectives, it would be beneficial for future researchers to examine actual language-discordant patient-provider interaction, in addition to in-depth interviews from patients and healthcare providers, including interpreters. Moreover, as addressed in previous studies (i.e., Wros, 2009), language barriers do not exist only on the patients' side. With the growth of globalization, an examination about the ways language barriers on the part of healthcare providers influence the quality of care and patient-provider interactions would be timely.

As the findings herein suggest, patients with language barriers encounter difficulties in asserting specific identities during patient-clinician interaction. However, little is known about the ways patients with language barriers manage their identities throughout the process of obtaining healthcare. Further examination of actual patient-clinician interaction, and conducting longitudinal data collection would also be useful in understanding ways to improve health outcomes in language-discordant situations.

It is important to keep building knowledge about language barriers in healthcare settings, in order to better understand the phenomena involved. Building the expertise needed to create better strategies to ameliorate language barriers. Regardless of the level of language proficiency or the amount of information needed to render medical treatment safely, it is crucial that all patients are respected and feel safe to voice their opinions and preferences when in need of medical care.

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APPENDIX A: INTERVIEW QUESTIONS

Interview Questions in English

I. Information about participants
  a. Your stay in Japan
    i. How long are you staying in Japan?
    ii. In what circumstances?
    iii. How long do you plan to stay in Japan?
  b. Daily conversations:
    i. Do you speak Japanese every day?
    ii. How many hours a day do you speak Japanese?
    iii. Who do you often interact with? Do you speak Japanese with these individuals?
  c. Interactions with Japanese individuals:
    i. Are there any situations, if any, when you feel difficult to communicate in Japanese?
    ii. What made you feel like that?
    iii. Are there any moment, if any, when you feel the conversation doesn't work well when you talk with Japanese people?
    iv. What aspect of the conversation was it?
    v. Was there any moment, if any, when you feel you were misunderstood (e.g., at restaurants or stores)?
      1. What made you feel like that?
    vi. Was there any moment, if any, when you feel uncomfortable about how you were treated (e.g., at restaurants or stores)?
      1. What made you feel like that?

II. Experiences in healthcare settings
  a. Comparisons between home country and Japan:
    a. After you came to Japan, have you ever visited a hospital/ health-care room?
    b. Yes →
      i. Are there any differences from the healthcare you have had in Japan?
    c. No →
      i. Do you think doctors in Japan are different from the ones in your country?
      ii. What would be similarities/differences?
      iii. Do you have any reason why you have not used hospital/ health-care room in Japan yet?
  b. Experiences of getting sick/being injured after coming to Japan:
    a. Do you have health insurance in Japan? What type (private or public?)

    b. How did you choose the hospital to visit? (For the participants who have not visited a doctor yet, I will change the question to “Suppose you are sick, how will you choose the hospital to visit)
    c. Was there any moment, if any, when you had difficulties to see a doctor? (Suppose you are sick, do you think visiting a doctor in Japan is difficult?)
    d. Was there any moment, if any, when you hesitated to see a doctor?
    e. What made you feel like that?

c. When you visited a hospital, did your medical providers spend enough time with you to make sure that you understand the information? (Do you think your medical providers will spend enough time with you to make sure that you understand the information?) Why? Why not?
d. Can you share the most horrible experience you had when you were sick/when you were injured?
e. Can you share the best experience you had when you were sick/when you were injured?
f. Is there any specific doctors or other medical professionals, if any, whom you hesitate to see again? (facial expressions, tone of voice)
    a. What made you feel like that?
g. Are there any moment, if any, when you feel the conversation didn’t work well when you talk with Medical providers?
    a. What aspect of the conversation was it?
h. Was there any moment, if any, when you feel you were misunderstood in healthcare settings?
    a. What made you feel that?
i. Was there any moment, if any, when you feel uncomfortable about how you were treated in healthcare settings?
    a. What made you feel like that?
j. Based on your previous experience, do you have some tips to use in healthcare settings for other people from foreign countries?

Interview Questions in Japanese

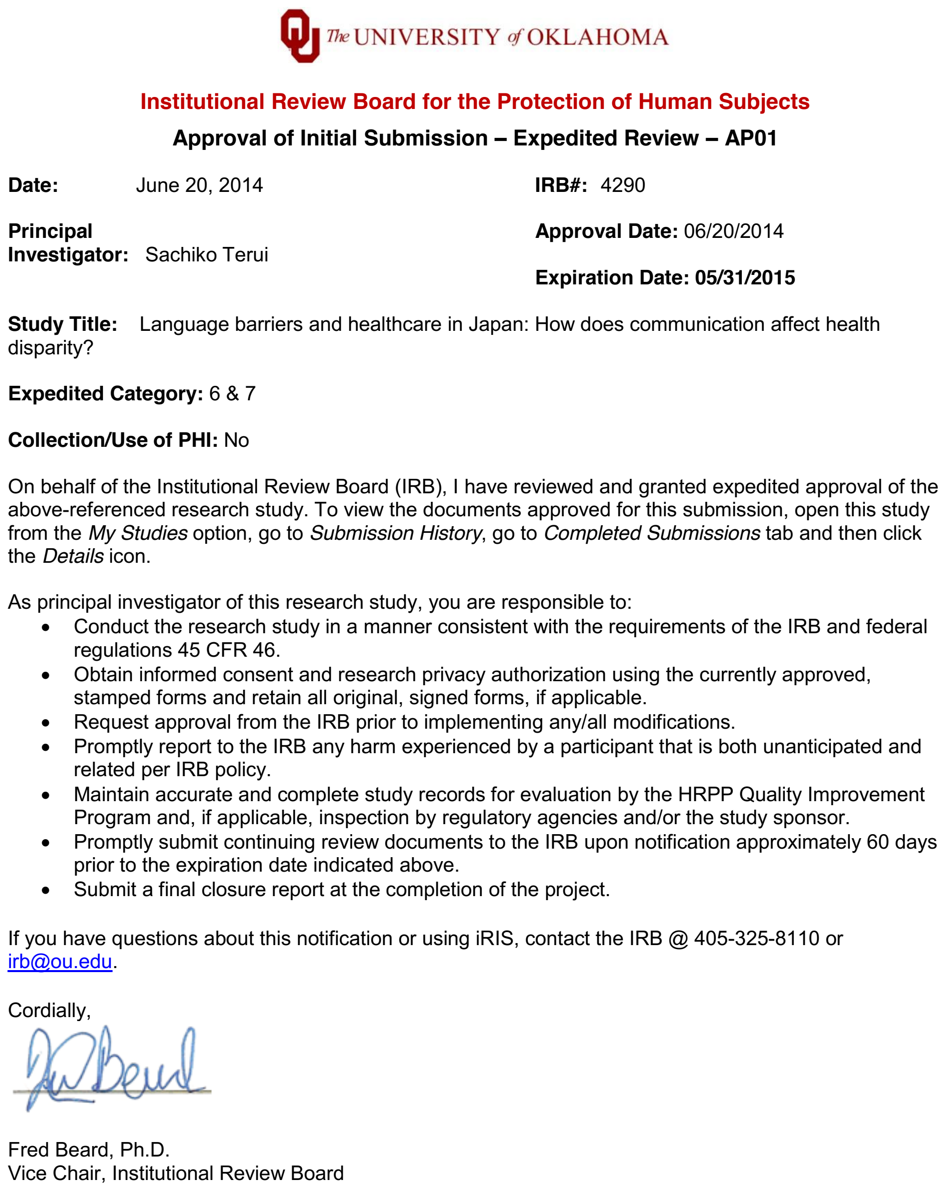
I. 参加者について
   a. 滞在期間：
      i. どのくらい日本に住んでいますか。
      ii. どんな経緯で日本に来たのですか。
      iii. 今後どのくらいの期間日本に滞在する予定ですか。
   b. 日常会話：
      i. 毎日日本語を話しますか。
      ii. 一日に何時間ぐらい日本語を話しますか。
      iii. よく話をするのは誰とですか。 その時、日本語を使いますか。
   c. 日本人との会話：
      i. 日本語で話すのが難しいと思ったことはありますか。
      ii. どうして難しいと思ったのですか。
      iii. 日本人と話す時、うまくいかないと感じたことはありますか。
      iv. どんな事がうまくいかないと感じたのですか。
      v. 日本語でのコミュニケーションがうまくいかず、誤解されたことがありますか。（例：飲食店やお店等で）
      vi. 日本語でのコミュニケーションがうまくいかず、不愉快な対応をされたことがありますか。（例：飲食店やお店等で）

以下の質問は医療に関してお聞きします。

II. 医療に関する体験
   a. 自国との比較：
      i. 日本に来てから、病院や大学／職場の保健室を利用したことはありますか。
      ii. はい→
         a. （参加者の国）と比べて違いがありますか。
      iii. いいえ→
         a. （参加者の国）と比べて、どんなイメージがありますか。
         b. 病院や保険室を利用していないのは、なにか理由がありますか。
   b. 日本に来てから、病気や怪我をした時：
      i. 日本で医療保険を持っていますか。
      ii. どうやって病院を選びましたか。（まだ病院や保健室を利用した事がない場合、「病気や怪我をした時、どうやって病院を選ぼうと思いますか」と質問を変える。）

        iii. 病院や保健室に行くのが難しいと思ったことがありますか。（病院や保健室に行くのは難しいと思いますか。）
        iv. 病院に行きたくないと思ったことがありますか。
        v. どうしてそのように思ったのですか。
c. 日本の病院に行った時、病院の人（医者や看護師）はあなたが色々な事を理解するのに十分な時間をとってくれましたか。（病院に行く時、病院の人はあなたが色々な事を理解するのに十分な時間をとってくれると思いますか。）
d. 日本の病院でよくないと思ったことはありますか。あるとしたらどのようなことですか。
e. 日本の病院で良いと思ったことはありますか。あるとしたらどのようなことですか。
f. 今まで治療を受けた医者や看護師のかたで、もう治療を受けたくないと思ったことはありますか。（表情や声の使い方等）
        i. どうしてそう思ったのですか。
g. 病院などの医療の場所で、職員などの日本人とうまく話せないと感じたことはありますか。
        i. それはどのようなことに関してでしたか。
h. 病院などの場所で、日本語でのコミュニケーションがうまくいかず、誤解されたことがありますか。
i. 病院などの場所で、日本語でのコミュニケーションがうまくいかず、不愉快な対応をされたことがありますか。
j. 自分の経験から、他の外国人が日本の病院で治療を受けたいと思った時に、アドバイスしてあげたいことはありますか。

APPENDIX B: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER FROM THE UNIVERSITY OF OKLAHOMA



The UNIVERSITY of OKLAHOMA

Institutional Review Board for the Protection of Human Subjects

Approval of Initial Submission – Expedited Review – AP01

Date:	June 20, 2014	**IRB#:**	4290
Principal Investigator:	Sachiko Terui	**Approval Date:**	06/20/2014
		Expiration Date:	**05/31/2015**

Study Title: Language barriers and healthcare in Japan: How does communication affect health disparity?

Expedited Category: 6 & 7

Collection/Use of PHI: No

On behalf of the Institutional Review Board (IRB), I have reviewed and granted expedited approval of the above-referenced research study. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

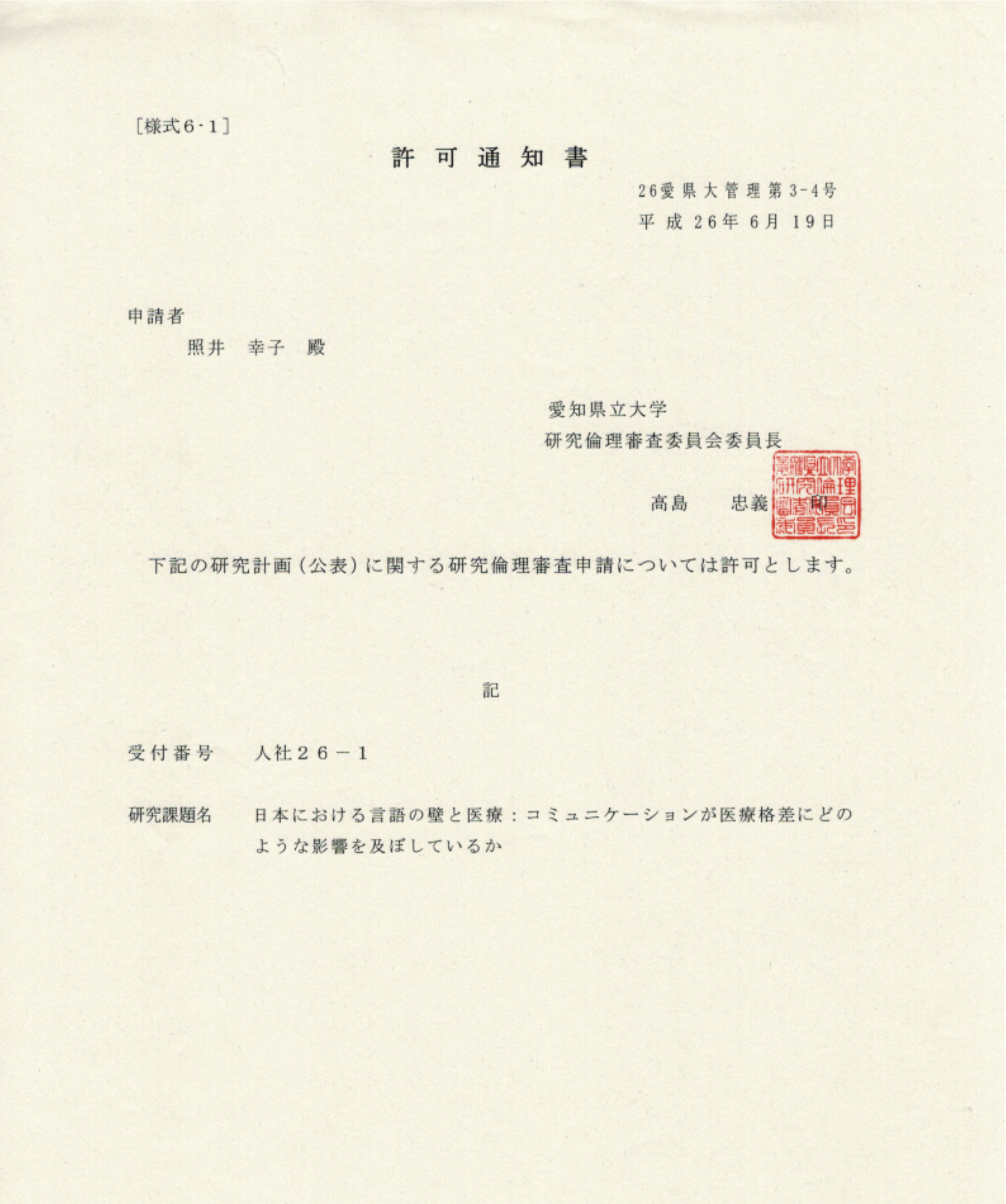
As principal investigator of this research study, you are responsible to:
- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Obtain informed consent and research privacy authorization using the currently approved, stamped forms and retain all original, signed forms, if applicable.
- Request approval from the IRB prior to implementing any/all modifications.
- Promptly report to the IRB any harm experienced by a participant that is both unanticipated and related per IRB policy.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Promptly submit continuing review documents to the IRB upon notification approximately 60 days prior to the expiration date indicated above.
- Submit a final closure report at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,

Fred Beard, Ph.D.
Vice Chair, Institutional Review Board

APPENDIX C: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER FROM AICHI PREFECTURAL UNIVERSITY



［様式6･1］

許　可　通　知　書

26愛県大管理第3-4号
平成 26年 6月 19日

申請者
照井　幸子　殿

愛知県立大学
研究倫理審査委員会委員長
高島　忠義　印

下記の研究計画（公表）に関する研究倫理審査申請については許可とします。

記

受付番号　人社２６－１

研究課題名　日本における言語の壁と医療：コミュニケーションが医療格差にどのような影響を及ぼしているか