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Experiences of communication barriers between physicians and immigrant patients: A systematic review and thematic synthesis

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Abstract

Frequent immigration of peoples from outside often challenges various systems of any country; healthcare sector is the most confronted one. One of the most prominent reasons for this confrontation is communication gap between physicians and immigrant patients. In this systematic narrative review, we studied existing literature on physician-immigrant patient communication. We systematically searched the repositories of literature and followed some criteria to select literature. We selected 32 literatures for information extraction. Three themes emerged from the synthesis: Physicians' viewpoint about communication barrier with their immigrant patients, Immigrant patients' viewpoint about the communication barrier with their physicians, and Interpreter as a mitigation process of communication barrier and associated challenges. Physicians are mostly concerned about the fidelity of their conversation with immigrant patients while the Immigrant patients are mostly concerned about their culture and sometimes fearful that the physicians will misunderstand them due to lack of language proficiency. This review provides an updated summary of communication barriers that may arise between physicians and immigrant patients, and their effects on quality of care.

Keywords

Communication barriers, immigrants, physicians, challenges of using interpreters

Introduction

Modern Western countries are becoming increasingly multiethnic due to international migration¹. Increasing globalization creates challenges for healthcare systems in providing quality care for immigrant populations². Immigrant patients experience many barriers when accessing healthcare, such as culture and language differences, lower socio-economic status, lack of knowledge, etc. Among these, communication barriers between healthcare providers and immigrant patients are extremely common and have significant impact and consequences³. Although healthcare providers encompass a large body of people from different disciplines, communication between patients and physicians is critical. Physicians are expected to accomplish three main tasks when attending to a patient: 1) establish rapport and trustworthiness, 2) understand the patient's problem, and 3) attempt to do something about the problem. Absence of a common language between physicians and patients strongly impacts these tasks⁴. Compliance with medical treatment largely depends on clear communication between physicians and patients⁵. Lack of effective communication may create frustration and

misunderstanding between both parties, which negatively impacts patient care⁶.

Communication barriers create challenges for both physicians and immigrant patients. For example, physicians may be reluctant to engage in conversation with patients if there is the possibility of being misunderstood. Further, communication efforts may take more time and therefore result in physicians adopting a more directive approach than interpersonal. Cultural differences may also contribute to barriers in communication between physicians and immigrant patients⁷. Immigrant patients may believe that communication with physicians results in stereotyping, and they are therefore less likely to communicate with physicians due to lack of language proficiency⁸. Culture and previous experience with different healthcare systems may contribute to the sense of hierarchy between immigrant patients and physicians, which impairs communication of health concerns⁹. Due to the numerous communication challenges and increased vulnerability of immigrant patients, the use of medical interpreters to enhance patient-physician communication has been widely implemented. While many studies have

focused on the positive and negative effects of interpreter use, the impact on quality of care remains uncertain ¹⁰.

The purposes of this study are: 1) to systematically identify literature focused on communication barriers between physicians and immigrant patients, and 2) to narratively summarize the findings of the studies included in the review.

Methods

This review followed Arksey and O’Malley’s five-stage framework of scoping reviews ¹¹. In Stage – I, the research topic of communication barriers between physician and immigrant patients was identified. Stage – II involved identifying relevant studies by comprehensively searching the literature databases using appropriate keywords. Keywords and the list of databases searched are provided in Tables 1 and 2, respectively. Snowball sampling from the reference lists of selected articles also identified studies. In Stage – III, selection of relevant articles, all duplicates and non-English articles were removed. Only studies that explicitly discussed communication barriers between physicians and immigrant patients were considered for inclusion. Exclusion criteria are provided in Table 3. Stage – IV involved charting key information from the selected studies in a Microsoft Excel file, including first author name, year of publication, study design or methodology, number of participants, ethnicity of the immigrant patients, study objectives, country of study, results of the study, and perspective of the study (Table 4, found at end). In Stage – V, the information was

synthesized and organized into three main themes. Figure 1 provides a flow diagram of the study selection process based on Coren and Fisher’s approach to performing systematic reviews ¹².

Results

Literature Search Overview

Of the 32 publications included for data extraction, seven discussed physicians’ perspectives, 15 discussed patients’ perspectives, and 10 examined both. Twenty-one studies were qualitative, eight were quantitative, and three were mixed. In most of the studies, patients’ ethnicity was mixed (defined as more than three ethnic groups).

Of the 32 selected studies, 10 were conducted in the United States, 10 in Canada, one in the United Kingdom, three in Sweden, five in The Netherlands, and three were conducted in Australia.

Thematic Synthesis

Outcomes of the selected studies were analyzed and organized into the following themes:

1. Physicians’ perspectives on communication barriers with immigrant patients.
2. Immigrant patients’ perspectives on communication barriers with physicians.
3. Use of an interpreter to reduce communication barriers and associated challenges.

Although “interpreter” was not included as a search term, almost every selected study analyzed or discussed the

Table 1. MeSH Search Terms

<p>Keywords for barrier:</p> <p>barrier* [Keyword]; factor* [Keyword]; risk* [Keyword]; risk [MeSH]; “risk factor*” [Keyword]; risk factors [MeSH]; Prejudice [Keyword, MeSH]; self-conscience* [Keyword]; issue* [Keyword]; attitude* [Keyword]; attitude [MeSH]; uncertainty [Keyword, MeSH]; mistrust [Keyword]; obstacle* [Keyword]; hurdle* [Keyword]; difficulty [Keyword]; obstruction [Keyword]; impediment [Keyword]; Challenge* [Keyword]; confront* [Keyword]; defy [Keyword]; defiance [Keyword]; object* [Keyword]; contest* [Keyword]; oppos* [Keyword]; question* [Keyword]</p>
<p>Keywords for communication:</p> <p>Communication* [Keyword, MeSH]; Language* [Keyword, MeSH]; Hospital communication [Keyword, MeSH]; Health Communication [Keyword, MeSH]</p>
<p>Keywords for physicians:</p> <p>Doctor*[Keyword]; Physician*[Keyword, MeSH]; “Medical practitioner* [Keyword]</p>
<p>Keywords for Patients:</p> <p>Patient*[Keyword, MeSH]; Client*[Keyword, MeSH]</p>
<p>Keywords for immigrants:</p> <p>Immigrant* [Keyword]; emigrant* [Keyword]; alien* [Keyword]; emigrants and immigrants [MeSH]; Newcomer [Keyword]</p>

Table 2. Databases Searched to Identify Literature for Synthesis

Published Articles	Grey Literature
MEDLINE	Google
EBM Reviews (including Cochrane)	Google Scholar
PubMed	ProQuest (theses and dissertations)
Scopus	OpenDOAR (institutional repositories)
CINAHL	Health Sciences Online (HSO)
Family & Society Studies Worldwide	Turning Research Into Practice (TRIP)
Health Source – Consumer Edition	OAIster (WorldCat)
Psychology and Behavioral Sciences Collection	Canadian Institute for Health Information
SocINDEX with Full Text	Public Health Agency of Canada (PHAC)
EMBASE	Health Canada
PsycINFO	National Institutes of Health
PubMed Central	
Web of Science	
Academic Search Complete	
Family Studies Abstracts	
Health Source: Nursing/Academic Edition	

Table 3. Exclusion Criteria for Study Selection

<ul style="list-style-type: none"> • Not in English • Not focused on doctor and immigrant patient communication • Not original research article • Report, editorial, personal experience, case report, policy, or method • Review article • Focused on other than communication barrier

impact of using an interpreter to enhance communication. Therefore, “use of an interpreter” was included as a third theme.

The three themes are described below and presented with supporting findings from the literature.

Physicians' Perspectives on Communication Barriers with Immigrant Patients

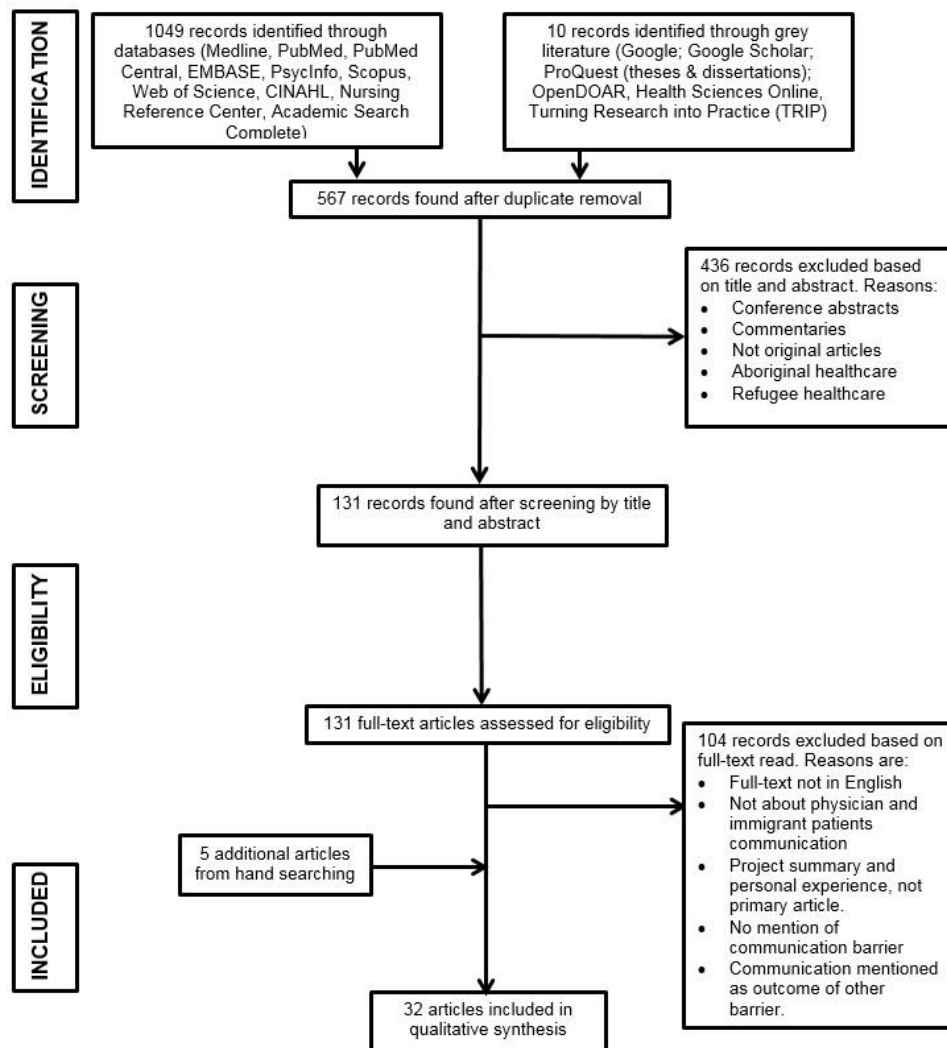
When caring for immigrant patients who speak another language, physicians may experience communication barriers and associated challenges. These challenges are diverse and include insecurity to engage with patients, misunderstanding of patients, more directive communication, negative impacts on shared decision making, more time consuming communication, perceived power distance between patients and physicians, etc.

A study on Swedish physicians reported that physicians often feel insecure because they are uncertain if patients understand what is communicated due to limited language

proficiency¹³. This study also stated that when patients and physicians do not speak the same language misunderstanding is a common negative outcome. However, the authors were unable to conclude whether misunderstanding was due to a language barrier or prior experience with multiple healthcare systems. Another study reported on three important tasks a physician must accomplish: 1) establish rapport and trustworthiness, 2) understand the patient's problem, and 3) attempt to do something about the problem. These tasks are strongly influenced by the absence of a common language⁴.

Miscommunication and mistrust have a negative impact on shared decision making between patients and physicians¹⁴. In one study, a group of general practitioners (GPs) reported different levels of mutual understanding due to communication barriers with immigrant patients¹⁵. GPs in this study also mentioned that poor mutual communication resulted in more challenging consultations. Physicians also reported that it can be challenging to understand and interpret patients' symptoms, due to the

Figure 1 Flowchart of Study Review Process



use of different idiomatic expressions that are difficult to decode¹⁶. All of these issues contribute to and create obstacles in diagnosis, treatment, and shared decision-making.

Physicians also report behaviour change and a change in communication style when caring for immigrant patients who speak another language. They are more directive with immigrant patients and deliberately withhold information, based on the belief that immigrant patients will have limited understanding. Physicians tend to give more direct advice rather than information and often make decisions for their immigrant patients^{14,17}. Some physicians believe that immigrant patients need more time to explain their concerns, and therefore caring for immigrant patients is not cost effective for the healthcare system¹³. In one study, Dutch GP consultations with non-Western immigrant

patients were on average two minutes shorter than consultations with Dutch patients. With immigrant patients, GPs invested more time in understanding patients' concerns while for Dutch patients they showed more involvement and empathy for suffering¹⁸.

Many studies reported how cultural differences between physicians and patients influence communication. One study found that culturally challenging consultations become difficult and emotional for physicians, and sometimes lead to a feeling of failure¹⁵. In contrast, many physicians are aware that culture may have an impact on communication and behaviour¹⁶. Another barrier in communication is the power difference between physicians and patients. This power difference is also influenced by culture, particularly in non-Western cultures where the physician is perceived to hold enormous power

and patients are not expected to speak freely until prompted by the physician¹⁹. This is in contrast to the expectations of Western physicians, who are accustomed to patients who more willingly share their health concerns^{20,21}. Immigrants from non-Western countries (such as groups of non-European origin, Africans, Asians, and Pacific Islander Americans) possess a culture of collectivistic orientation, and the more collectivistic the orientation the greater the power distance²². One study reported that for senior immigrants from Asia and the Middle East, the Western habit of addressing elders by their first name may be interpreted as a form of disrespect²³.

Immigrant Patients' Perspectives on Communication Barriers with Physicians

Similar to physicians, immigrant patients are also challenged by communication barriers in Western healthcare settings. A significant number of immigrants to Western countries are unable to communicate effectively with physicians and are therefore not able to seek appropriate help from the healthcare system.

Communication challenges lead to misunderstanding or lack of understanding of physicians' advice and treatment. Immigrant patients experience difficulty in understanding medical terminology communicated in their non-native languages. They are hesitant to seek care from Western physicians due to the experience of stereotyping by physicians. Moreover, lack of cultural awareness by physicians also affects communication with their culturally sensitive immigrant patients. Together, these communication challenges negatively impact patient activation and shared decision making between physicians and immigrant patients.

A study conducted on Chinese and Asian immigrants in Canada reported that limited English language proficiency was a significant barrier to accessing preventive cancer screening tests and understanding the need for regular screening and impacted the level of exposure to cancer information²⁴. Other studies conducted on the same population group also supported these findings^{25,26}. Similar studies in the United States showed that Vietnamese immigrant patients reported poor understanding of medical tests and that mistrust between physicians and patients was present due to communication and language difficulties²⁷.

Immigrant patients also reported that medical terminology used by Western physicians was difficult for them to understand. This difficulty in understanding medical language creates barriers to effective communication with physicians²⁸. A study conducted on Chinese and South Asian immigrant patients reported that patients were sometimes required to learn unfamiliar and complex medical terminology in order to consult with physicians²⁹. As a result of poor language proficiency, immigrant

patients often are not encouraged to seek further clarification¹⁶.

Another study conducted on immigrants in Sweden from Cuba, Russia, Palestine, Bosnia, and Iran reported that immigrant patients are not comfortable in communicating through a digital healthcare helpline. This is due to not only language barriers, but also the culture of the immigrants. In general, immigrant patients prefer face-to-face conversation with the expectation of more immediate and tangible assistance, rather than using a telephone system that requires long waits to access care¹³. A study conducted in The Netherlands found that Dutch patients' conversations with GPs were more effective than Dutch immigrants' conversations with the GPs³⁰. These studies also indicated that immigrant patients expect physicians to be culturally competent and avoid stereotyping to ensure effective communication. Immigrant patients often seek physicians of similar ethnic origin, with the hope that these physicians will understand their culture and communicate in their native language³¹.

Communication barriers between physicians and immigrant patients impart negative impact on patient activation. Patient activation is defined as the knowledge, skills, and confidence to manage one's own health and healthcare³². A study on Latino immigrants in United States revealed that patients fluent in both English and Spanish have the highest rate of patient activation, which suggests a strong association between patient activation and physician-patient communication³³. Other studies from the patient perspective support the concept that a physician's communication process with patients is central to support self-management, diagnosis, and treatment^{34,35}.

Two studies conducted among immigrants in The Netherlands indicated that immigrant patients with poor Dutch language proficiency experienced lack of communication with and understanding by physicians. This population is least satisfied with the care received, hence least compliant toward their healthcare^{30,36}. A similar study conducted in the United States among African-American, Latino, and non-Latino white patients indicated that the level of communication between patients and physicians strongly affects the quality of and access to healthcare³⁷.

Use of an Interpreter to Reduce Communication Barriers and Associated Challenges

The need for effective communication with diverse cultural populations has led to the increased use of language interpreters³⁸. In theory, interpreters are an effective solution in situations where physicians and immigrant patients do not speak the same language³¹. However, both researchers and physicians have questioned the competency, reliability, and availability of interpreters in healthcare environments^{39,40}.

Translation typically falls into one of three categories:: simultaneous, line-by-line, or summarization, the latter being the least accurate but most commonly used method in healthcare ⁴¹. When using the summarization method, interpreters may intentionally or unintentionally add or subtract things; they may have attitudes and values that differ from physicians or patients; or they may have a different knowledge base or understanding of the context and may not understand the non-verbal cues of the speaker ^{4,41}.

A survey of the Minnesota Medical Association revealed that 88% of their physicians used interpreter services in their clinical work. In using these services, physicians faced barriers such as unavailability of the service due to requests on short notice, the inconvenience of contacting the service, the competency or reliability of interpreters, and associated cost ⁴². In another study, physicians described having no possession of knowledge of the training undertaken by interpreters and queried whether interpreters were familiar enough with medical terminology, thereby leaving physicians uncertain of the competence of interpreters. This may impair the development of trust between physicians and interpreters ³¹.

A study in oncology focused on immigrants' communications with and without interpreters and showed that a significant number of physician (23%) and patient (59%) speeches were not interpreted at all or interpreted non-equivalently (27% physicians' speech and 4% patients' speech) ⁴³. This study also demonstrated that interpreters modify information provided by the physician with the intent to minimize a negative impact or to hide a poor prognosis. Miscommunication may also occur due to an interpreter's lack of understanding about the style of pronunciation, intonation, and grammar of the speakers ⁴⁴.

All of these challenges are commonly experienced with the use of both professional and ad hoc or informal (family members of patients) interpreters. Although professional interpreters make fewer communication/translation errors ⁴⁵, patients may prefer family members due to a lack of trust in interpreters when disclosing health information ⁴⁴.

Discussion

This review provides a summary of communication barriers that may arise between physicians and immigrant patients and their effects on quality of care. Miscommunication impacts the development of trust and may impair health outcomes. Based on the reviewed literature, communication barriers were reported from both physician and patient perspectives. Communication with immigrant patients may take extra time to ensure appropriate information is provided and that there is a reasonable level of understanding achieved by the patient.

Therefore, physicians may choose more direct communication with immigrant patients, rather than more open conversation with the goal and outcome of shared decision-making.

It can be challenging for immigrant patients when physicians lack knowledge of their culture and practice. For many immigrant patients, a power differential exists between the physician and the patient, which results in a lack of open and free communication unless prompted by the physician. Immigrant patients also believe that due to their limited language proficiency, physicians will be less likely to understand their concerns. Immigrant patients represent diverse populations with a complex mixture of cultures. As such, it is challenging for physicians to understand every culture, which may lead to the generation of stereotypes of their immigrant patients.

Studies have shown that the use of a professional interpreter may help bridge the communication gap between physicians and immigrant patients, but concerns are noted from both patient and physician perspectives. Many studies reported that interpreters create barriers in communication rather than facilitation. Patients may feel shy and uncomfortable in disclosing their health information in front of an unknown person and are more likely to prefer a family member in the role of the interpreter. However, family members or ad hoc interpreters may not have adequate knowledge and training to accurately communicate information in the role of interpreter. Also, family members might soften the physician's message or change the content of the speech intentionally or unintentionally before presenting it to the patient. Physicians also expressed concerns about the trustworthiness and accuracy of professional interpreters, particularly in the absence of knowing whether interpreters are communicating the appropriate information on their behalf.

Our findings support earlier research on physician and immigrant patient communication barriers. Perloff et al ⁴⁶ found that language in conjunction with with other factors has a significant influence on the quality of the physician-patient relationship. Villagran et al ⁴⁷ showed that immigrant patients' intention to adhere to treatment largely depends on communication with their physicians and the quality of care received. Lou et al ⁴⁸ suggested that physicians need to make extra effort to improve communication with minority patients and also to engage minority patients in decision making. Butow et al ⁴⁹ found that non-equivalent interpretation is common when an interpreter is used.

This study is limited by a few factors. We only considered the communication barriers of legal immigrants. Refugees and undocumented migrants were not included. We did not include "interpreter" as a keyword in our search;

however, most of the selected articles for this study mentioned interpreters or referred to the use of an interpreter as a solution to communication barriers between physicians and immigrant patients. Therefore, the information discussed regarding use of an interpreter in this paper reflects only the findings from the selected studies. We only considered studies published in the English language. Lastly, we did not attempt to critically appraise the articles we reviewed in this study.

Conclusion

When caring for immigrant patients, physicians feel insecure in their ability to communicate effectively and note higher levels of misunderstanding. Physicians change their behaviour and communication style to become more directive, which negatively impacts shared decision-making. Also, physicians may have limited knowledge of the cultural issues that impact communication with their immigrant patients. Due to their limited language proficiency, immigrant patients may be hesitant and fearful when speaking with physicians. They may be less likely to engage with the healthcare system and seek appropriate care. Communication barriers and lack of trust in the healthcare system results in less adherence to treatment decisions and plans. Use of an interpreter is a commonly used strategy to reduce communication barriers, however, their effectiveness has been questioned.

Practical Implications

Findings from this study can be applied to help increase awareness of the communication issues experienced by both physicians and immigrant patients and improve immigrant patients' ability to use and access healthcare. Physicians should cognizant of potential communication barriers when caring for immigrant patients and take the necessary steps to address those barriers to help improve quality of care. Additional research is required to assist in determining effective solutions to address physician-immigrant patient communication challenges.

Compliance of ethical standard

Funding: There was no funding associated with the study.
Conflict of interest: The authors report no conflicts of interest.

Ethical approval: This study was not subject to ethical approval.

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Table 4 Studies Identified for Inclusion in the Systematic Review

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Ahmed R et al ⁴²	2004	Quantitative, survey	251 providers	Mixed	<ul style="list-style-type: none"> Physicians' knowledge and access to language interpreter service Their perception about cross-cultural communication barriers 	US	<ul style="list-style-type: none"> 88% of respondents use interpreter service. Barriers: (a) Too little notice to arrange interpreter, (b) inconvenient to contact (if interpreters are not regular), (c) competency and reliability of interpreters, (d) shortage of reliable interpreters. Frustration: (a) Sole availability of untrained relatives as interpreter, (b) lack of support from clinic about the necessity of interpreters, (c) lack of trained bilingual support staff. 	D

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Akhavan S et al ¹³	2013	Qualitative, interview	5 clients and 5 physicians	Mixed	• To investigate variations in explanations given for disparities in healthcare use between migrant and non-migrant groups, by clients and care providers	Sweden	<ul style="list-style-type: none"> • Communication: (a) Physicians think: (i) limited Swedish language ability resulted in more time in communication, working with interpreters also takes time, and additional time is not cost-effective, (ii) misunderstanding due to difficulty in patients' language skill, (iii) patients experience difficulties dialing digital communication system, (iv) patients are more comfortable seeing foreign doctors than Swedish doctors, and (v) insecurity when engaging patients with non-Swedish language. (b) Patients think: (i) Swedish doctors need significant cultural awareness to provide effective care for non-Swedish-speaking patients, and (ii) people working in healthcare often relied on stereotypes. 	Both
Alegria M et al ³³	2009	Quantitative, interview	1067 clients	US-born and foreign-born Latinos	• To investigate the relation of patient activation rate with doctor-patient communication	US	<ul style="list-style-type: none"> • Patient activation strongly associated with doctor-patient communication for both groups. • Bilingual persons had the greatest PAM score. 	P

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Binder P et al ³¹	2012	Qualitative, interview, and focus group	60 clients and 62 providers	Somali, Ghanaian, and white British	<ul style="list-style-type: none"> • Are communication problems, primarily language, a barrier to optimal care for immigrant women? • Expectation of maternity care among pregnant women of different ethnic backgrounds • Are pregnant women drawn to staff of the same ethnic origin? 	UK	<ul style="list-style-type: none"> • Language cited as main problem to establishing adequate communication. • Frustration starts to grow when people do not understand what other people are saying. • Concerns about interpreter included: (i) familiarity with medical vocabulary, (ii) trust, (iii) accessibility and consistency, (iv) discrepancies among interpreters, and (v) unwillingness of patients to speak to strangers. • Some patients are comfortable seeing doctors from their own ethnic background. They consider these doctors their brothers or sisters with the same language. 	Both
Bolton J ⁴	2002	Qualitative, observation	300 patients	Portuguese and Spanish	<ul style="list-style-type: none"> • How shared language between doctors and patients obtrude clinical encounters • How the interpreter influences participants' experience of the encounter 	US	<ul style="list-style-type: none"> • Doctors' primary tasks are strongly influenced by absence of common language. • Doctors felt loss of therapeutic momentum without lack of common language. • Doctors think involving an interpreter complicates establishment of trust with patients. 	D

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Brooks TR 41	1992	Survey	52 providers	Mixed (more than 3)	• How to improve the understanding of Hispanic and African American patients	US	<ul style="list-style-type: none"> Spanish-speaking physicians obtain better information than paid Spanish translators. Interpretation by summarization creates most of the barriers because of adding or subtracting information, lack of knowledge base, lack of understanding the context, and lack of understanding about non-verbal communication. 	D
Butow PN et al 43	2013	Qualitative, audio-taped conversation	10 providers, 78 clients, 115 family members	Mixed	• This study compared prognostic communication with immigrants and native clients	Australia	<ul style="list-style-type: none"> Doctors use similar approaches for prognostic communication with both groups. With interpreters, sometimes doctors' prognostic statements are not properly mentioned. Interpreters often try to soften the news and occasionally hide poor prognosis completely. 	Both
Butow P et al 49	2011	Qualitative, audio-taped conversation	10 providers, 78 clients, 115 family members	Mixed	• This study compared oncology communication with immigrants and native clients	Australia	<ul style="list-style-type: none"> Consultation length was similar in both groups. Doctors spent less time talking with patients with an interpreter present. With immigrants, oncologists usually spent less time giving information and more time providing direct advice. 	Both
Cave A et al 50	1995	Qualitative, focus group	13 clients and 5 providers	Mixed	<ul style="list-style-type: none"> To formulate misunderstanding during cross-cultural communication To formulate recommendations for facilitating communication 	Canada	<ul style="list-style-type: none"> Providers were: (i) frustrated using translators, and (ii) worried about confidentiality breaches. Clients were: (i) satisfied using family members as translators, and (ii) do not feel their privacy is compromised. 	Both

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Donnelly TT ¹⁹	2008	Qualitative, semi-structured interview	6 providers	Vietnamese	• To identify healthcare providers' perspectives about the challenges of providing breast and cervical cancer screening to Vietnamese immigrant women	Canada	• Culturally, Vietnamese women possess significant power distance with their physicians, which hinders them talking proactively with physicians in Western culture.	D
Green AR et al ⁵¹	2005	Quantitative, survey	2715	Chinese and Vietnamese	• To compare self-reported communication involving interpreter vs native-language-speaking physicians	US	• Assessment was similar between who used interpreters and who directly consulted native-language-speaking physicians.	P
Gulati S et al ²⁹	2012	Qualitative, semi-structured interview	50	Chinese and South Asian	• Explored the role of communication and language in the healthcare experience of immigrant parents of children with cancer	Canada	• Parents' role in caring for their child was affected. • Parents had to learn complex and unfamiliar medical terminology. • Interpreter service was inadequate and not readily accessible.	P
Hadziabdic E ³⁹	2011	Qualitative	17 patients, 10 family members and 24 providers	Serbo-Croatian	• To explore how individuals, family members, and healthcare professionals perceive the use of an interpreter in health communication	Sweden	• The overall finding from all perspectives was the wish to have a qualified interpreter whose role was as a communication aid but also as a practical and informative guide in healthcare.	Both
Harmsen H et al ³⁰	2003	Quantitative, survey	87	48 mixed ethnicity and 39 Dutch	• To investigate parental proficiency of Dutch language on mutual understanding between physicians and the parents of the child	The Netherlands	• Communication is less effective between physicians and ethnic patients than with Dutch patients due to language barriers. • There was more non-compliance in the ethnic group due to misunderstanding.	P

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Harmsen JAMH et al ³⁶	2008	Quantitative, interview	663	Mixed	• To study which patient characteristics are related to patients' satisfaction and perceived quality of care	The Netherlands	<ul style="list-style-type: none"> • For process evaluation, patients' language proficiency is the most important predictor. • Patients with poor language proficiency are less positive about the process. 	P
Jacobs EA et al ²⁵	2005	Quantitative	1247	Mixed	• To examine the relationship between the ability to speak English and breast and cervical cancer screening in multiethnic populations	US	<ul style="list-style-type: none"> • Reading or speaking only a language other than English and reading and speaking another language more frequently than English were significantly and negatively associated with cancer screening. 	P
Kokanovic R et al ³⁵	2007	Qualitative, in-depth interview	30	Mixed	• Perception of immigrants about their doctors regarding diagnosis, treatment, and management of type 2 diabetes	Australia	<ul style="list-style-type: none"> • Communication processes influence patient attitudes and are an important factor in diabetes management. 	P
Liang W et al ²⁶	2009	Quantitative	558	Chinese	• To examine how cultural views and language ability influence mammography adherence in Chinese immigrant women	US	<ul style="list-style-type: none"> • Culturally sensitive and language-appropriate educational interventions are likely to improve mammography adherence among Chinese immigrant women. 	P
Marshall Eg et al ²⁰	2010	Qualitative, focus group	78	Chinese and Punjabi	• How unmet healthcare needs are conceptualized among Chinese- and Punjabi-speaking immigrants	Canada	<ul style="list-style-type: none"> • English language ability was a factor that influenced reporting unmet healthcare needs. 	P

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Meeuwesen L et al ¹⁸	2006	Quantitative, interviews, and video observation	144	61 mixed immigrants and 83 Dutch	• To gain deeper insight into relational aspects of medical communication patterns in intercultural consultations in GP practices	The Netherlands	<ul style="list-style-type: none"> • Consultation with immigrant patients were around two minutes shorter. • The power distance between GPs and immigrant patients was greater than Dutch patients. • Doctors invested more in understanding immigrant patients, while they showed more involvement and empathy for Dutch patients. • Language proficiency is one of the most common factors associated with these differences. 	Both
Meeuwesen L et al ⁵²	2009	Qualitative, video-registered medical interviews	986	429 Turkish immigrants and 557 Dutch patients	• Comparative analysis of the involvement of informal interpreters during medical consultations with both good and poor mutual understanding between GPs and patients	The Netherlands	<ul style="list-style-type: none"> • Miscommunication occurred nearly five times more in the low mutual understanding (MU) group than the high MU group. • A substantial number of miscommunications were caused by interpreters' low self-profile. • Changes in translation occurred twice as often in the low MU group than in the high MU group. • More linguistic problems occur in the low MU group because the interpreters' language proficiency appears to be insufficient or because of selectivity. • Side talk happened twice as often in the low MU group than in the high MU group, which resulted in exclusion of the physician from the interaction. 	Both

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Papic O et al ⁵³	2012	Mixed, interview	598	Mixed	• To evaluate family physicians' perspectives on the care of immigrant populations	Canada	<ul style="list-style-type: none"> • The majority of family physicians found communication was the most difficult barrier in managing immigrant patients. • Most of the physicians would like to see improved access to an interpreter. 	D
Nachtigall RD et al ⁵⁴	2009	Qualitative, interview	145	Latino	• To provide insight into the experience of low-income Latino immigrant couples seeking infertility treatment	US	<ul style="list-style-type: none"> • The first major challenge was communication barriers due to language and cultural discordance. • Lack of a translator. • There is a difference in communication style between doctors and Latino immigrant patients. 	P
Nápoles-Springer Am et al ³⁷	2005	Mixed, qualitative	161	African-American, Latinos, non-Latino whites	• To identify key domains of cultural competence in ethnically and linguistically diverse patients	US	• Language affects satisfaction about quality of care received and access to health care.	P
Nguyen GT et al ⁵⁵	2007	Qualitative, interview	20	Vietnamese	• To learn more about the cancer-related communication experiences of older Vietnamese immigrants	US	• Patients mentioned poor understanding of medical tests, less time provided by doctors, and trust between doctors and patients during consultations due to communication, language, and translation difficulties.	P
Poureslami I et al ²¹	2011	Qualitative, focus group	29	Mixed	• To investigate how new immigrant asthma patients are educated about management and to identify the barriers to knowledge transfer	Canada	• One of the most frequently mentioned barriers was the lack of proper communication with doctors due to language and cultural issues.	P

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Rosenberg E et al ¹⁶	2006	Qualitative, observation	12 providers and 24 clients	Mixed	• To describe the challenges of intercultural communication between immigrant patients and their physicians	Canada	<ul style="list-style-type: none"> • Language differences of doctors and physicians interfered with achievement of the goal of the visit. • Physicians are often ignorant about culturally competent communication behaviour. • Physicians and patients are divided in their opinion about who is responsible for arranging interpreters. • Patients often make errors in choosing appropriate words and fear that the physician will not understand. • Often patients failed to understand physicians but did not ask for clarification due to language. • Physicians had difficulties understanding patients' different idiomatic expressions. 	Both
Rosenberg E et al ⁴⁵	2007	Qualitative, interview	19 providers and 24 patients	Mixed	• To explore physicians' perceptions about how interpreters affect doctor-patient communication	Canada	<ul style="list-style-type: none"> • Physicians think interpreters mostly make communication difficult. 	D

Author	Year	Design and Method	Participants	Ethnicity of Patients	Study Objective	Country	Results	Perspective (D or P or both)*
Suurmond J et al ¹⁴	2006	Qualitative, semi-structured interview	18 providers and 13 clients	Mixed	• To describe barriers in shared decision-making in an intercultural context.	The Netherlands	<ul style="list-style-type: none"> • Shared language was a major barrier. • Due to language barriers, physicians often fail to understand information given to them by immigrant patients and patients fail to understand treatment advice. • Sometimes physicians deliberately withhold information because they feel that patients with limited Dutch language skills will not understand. They make the decision for the patients. 	Both
Todd L et al ²⁴	2011	Quantitative	103	Chinese	• To understand the cancer screening behavior of English-as-a-second-language older Chinese immigrants	Canada	• Limited English language proficiency was found to be a significant barrier in obtaining preventive cancer screening tests, understanding the need for regular screening, and impacts the level of exposure to cancer information in general.	P
Todd Let al ²⁸	2011	Qualitative, semi-structured interview	50	Chinese	• To understand the barriers to and sources and strategies of cancer information seeking among English-as-a-second-language older Chinese immigrants	Canada	• Language issues and difficulty with medical words appeared to be barriers to cancer information seeking.	P
Wachtler C et al ¹⁵	2005	Qualitative, semi-structured interview	20	Mixed	• To understand how GPs manage consultations with immigrant patients	Sweden	• Language barriers were mentioned as a cause of mutual misunderstanding, which often compromised GPs' professional role.	D

* D: Physicians' perspectives, P: Patients' perspectives