ACADEMIA International Journal for Social Sciences
Volume 4, Issue 4, 2025 ISSN-L (Online): 3006-6638

Health Literacy of Migrants in Pakistan

Azzah Khadim Hussain
azzah.khadim@gmail.com
Mphil. Pharmaceutics, Faculty of Pharmacy, University of Central Punjab, Lahore, Pakistan

Abu Ans Waseer
Department of Pharmacy, Akhtar Saeed College of Pharmaceutical Sciences, Lahore, Pakistan.

Shahrukh Burki
Department of Sociology, Govt. Islamia Graduate College (W), Lahore, Pakistan.

Hafsa Arshad
Pharmacy Administrations and Clinical Pharmacy, School of Pharmacy, Xi'an Jiaotong University, Shaanxi Province, China.

Sidra Malik
Department of Pharmacy, University of Punjab, Lahore, Pakistan

Danish Tariq
Governing Board Member Youth Advocacy Network, School of Integrated Social Sciences, University of Lahore, Pakistan.

Corresponding Author: * Azzah Khadim Hussain azzah.khadim@gmail.com

Received: 12-07-2025 **Revised:** 22-08-2025 **Accepted:** 17-09-2025 **Published:** 21-10-2025

ABSTRACT

Health literacy is individual's ability to understand, interpret and implement the health information to get better health outcomes or simply it is the know how about health-related issues. The study was carried out to find out the major factors/barriers affecting health of migrants residing in Lahore and how much impact does knowledge of language have on the understanding of health-related issues. The study has been conducted through a Printed qualitative census-like forms were given and filled as the means of collection of data. Personal interview was also subjected in most of the cases for elaborate view. The survey included almost 147 migrants of different nationalities and age groups in which 65% were male respondents and 35 % were female respondents. The survey was conducted within the migrants residing in different localities in Lahore, Pakistan. Data was collected, statistically analyzed and interpreted. It is found that almost 100% of female respondents and about 75% of male respondents thought that the most common frequent hurdle is the lack of confidence and on personal interviewing all that was pertaining to the lack of knowledge of the resident country language .The survey findings of migrants in Pakistan are not at the level of satisfaction, as Majority of the respondents about 56% females and 45% males understood the resident language at average level but not good enough to address their health care issues. On the issue of taking medicines regularly about 67% female and 68%male respondents responded in negative. About 77% female and 78% male migrants believed in face-to-face discussion with their health care provider for addressing their health care needs. It is concluded that there is need of active involvement of health care providers in educating, counseling, understanding and addressing the health issues related to the migrants. Different ways of communication and counseling can be adopted in order to maximize migrants' health care benefits and less occurrence of risks associated with medical errors or drug misuse.

Keywords: *Health Literacy, Migrants, Drug Misuse, Education, Health Services*

INTRODUCTION

Health Literacy as defined in the Institute of Medicine report, *Health Literacy: A Prescription to End Confusion,* as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."

It is not simply the ability to read. It requires a complex group of reading, listening, analytical, and decision-making skills, and the ability to apply these skills to health situations. For example, it includes the ability to understand instructions on prescription drug bottles, appointment slips, medical education brochures, doctor's directions and consent forms, and the ability to negotiate complex health care systems. Health literacy arises from a convergence of education, health services, and social and Cultural factors, and brings together research and practice from diverse fields (Institute of Medicine, 2004). We can also say it as individual's ability to understand, interpret and implement the health information to get better health outcomes or simply it is the know how about health-related issues.

Health Literacy and Culture

For people belonging to different cultural backgrounds, health literacy is affected by many factors like personal beliefs, communication styles, and response to health information. Even though culture is only one part of health literacy, it is a very important piece of the complicated topic of health literacy. In Pakistani cultural settings, many immigrants face language and cultural problems that may result into health hazards. As the United States Department of Health and Human Services (HHS) recognizes that "culture affects how people communicate, understand and respond to health information." (HHS, 2013).

According to HHS, Health literacy is dependent on individual and systemic factors like, Communication skills of lay persons and professionals, lay and professional knowledge of health topics, Culture, demands of the healthcare and public health systems and demands of the situation/context. It says that health literacy affects people's ability to navigate the healthcare system, including filling out complex forms and locating providers and services, share personal information, such as health history, with providers, engage in self-care and chronic-disease management and understand mathematical concepts such as probability and risk.

Problem Statement

The researcher intends to determine level of health literacy of migrants in Pakistan to surface key barriers faced by them. As culture plays an important role to determine people communication and understanding of health information, therefore the migrants living in Pakistan may face the said problems. The researcher's key focus is on language as the most of the migrants do not understand Urdu language properly. As the researcher concern is with language so it is very difficult for the migrants to communicate medical practitioner in native language. The researcher assumes it problematic for the health of the foreigners. Many citizens from abroad come Pakistan for studies or business and not all of them are acquainted with Pakistani language or culture. Therefore, the problem of their health arises owing to the language barrier. Once the language barrier is lifted, the migrants may feel free to report to medical practitioner for their health-related issues and hence can care themselves better.

Importance

According to the American Medical Association report, "*Health Literacy and Patient Safety: Help Patients Understand, 2006*" poor health literacy is a stronger predictor of a person's health than age, income, employment status, education level, and race". According to another study, "Health Literacy Interventions and Outcomes: An Update of the Literacy and Health Outcomes Systematic Review of the Literature, 2012" low health literacy is linked to higher risk of death and more emergency room visits and hospitalizations.

Health literacy may not be related to years of education or general reading ability. A person who functions adequately at home or work may have marginal or inadequate literacy in a health care environment.

So, in the light of the said findings, this research becomes very important as far as language barrier of the migrants regarding their health literacy is concerned. If there is poor health literacy, there will be a greater language barrier and hence larger health hazards for migrants. It is very important to determine level of health literacy of migrants in Pakistan. If health literacy is poor owing to language, culture or other barriers, there, it needs to be addressed for better health care.

Health literacy has a significant influence on our daily lives. Imagine a mother with a sick baby

Who misunderstands the doctor's instructions for giving cough medicine to the child? As a result. She accidentally gives the baby two *tablespoons* rather than two *teaspoons* of medicine, causing a severe reaction that requires rushing the baby to the emergency room in an ambulance. Result is low heath literacy.

Objective of the Study

Purpose of the study is to find out any language barrier of migrants regarding their health literacy. It has been carried out to find out the major factors/barriers affecting health of migrants residing in Lahore and how much impact does knowledge of language have on the understanding of health-related issues.

The research aims to explore whether migrants in Pakistan face barriers that impact their health. Specifically, it investigates the hypothesis that language acts as a major barrier influencing migrants' access to and utilization of healthcare services. By examining how communication challenges affect health outcomes, the study seeks to identify the extent to which linguistic differences contribute to disparities in healthcare experiences among migrant populations in Pakistan.

LITERATURE REVIEW

Many previous works have been done to determine health literacy and barriers affecting health of migrants. The National Assessment of Adult Literacy (NAAL, 2006) measures the health literacy of adults living in the United States. Health literacy was reported using four performance levels: Below Basic, Basic, Intermediate, and Proficient. According to the NAAL, approximately 36% of adults in the United States have limited health literacy-22% have Basic and 14% have Below Basic health literacy. An additional 5% of the population is not literate in English. Only 12% of the population has a proficient health literacy level.

In the 2010 Surgeon General's Perspectives, in which important national public health issues are communicated, Dr. Regina Benjamin stated "HHS reports that the cultural and linguistic differences among patients directly impact their health literacy levels, which in turn contributes to an increased prevalence of health disparities" in special and vulnerable populations. (Surgeon General's Perspectives: Improving Health by Improving Health Literacy, 2010).

In his research, (Schyve, 2007) found that effective communication with patients is critical to the safety and quality of care. He found language and low health literacy as major barriers. He suggested that evidence-based practices that reduce these barriers must be integrated into, rather than just added to, health care work processes.

Another study, "Understanding Cultural and Linguistic Barriers to Health Literacy" conducted in 2009; Singleton found that culture and language set the context for the acquisition and application of health literacy skills of patients. Understanding a patient's level of health literacy requires an assessment of the

patient's linguistic skills and cultural norms and the integration of these skills and norms into health literacy strategies for the patient's plan of care.

Andrulis and Brach (2007) have noted that language and culture provide the experiential context for comprehension of health information. Knowing about a patient's language and culture is key for knowing how health literate the person is in a given situation.

The seminal 2003 National Assessment of Adult Literacy (NAAL) (Kutner, Greenberg, Jin, & Paulsen, 2006) measured health literacy disparities in several culturally diverse populations of American adults. It was found that the adults who spoke a language other than English before starting school, had lower average health literacy scores than adults who spoke only English before starting school.

In general, research shows that individuals with lower literacy levels tend to have worse health overall, are more likely to be hospitalized, less likely to pursue preventive services, and less likely to understand their own health conditions.

Rationale

Rationale is an explanation of the basis or fundamental reasons for something. As the researcher deals with language barrier affecting health literacy, so it is observed that low health literacy is common. We do not have good strategies for knowing who is struggling with health information. Health literacy improvement is a shared responsibility between patients, families and organizations, with proper responsibility on the health care system to make sure that health information is understood by patients. In this era of shared decision-making in health care, an informed consumer will have larger ability to make decisions that are positive and health promoting. Knowledge and information improve self-care knowledge, skills, and abilities and that is only possible if the patient has no “language barrier”.

METHODOLOGY

Research Design and Data Collection

Qualitative research methodology was employed to assess level of health literacy in migrants living in Pakistan. Qualitative research data is based on written or spoken narratives. It gathers data that is free-form and non-numerical. It is used to study individual cases and to find out how people think or feel in detail. It can be difficult to analyze qualitative research data. Different researchers may draw different conclusions from the same qualitative material. The study has been conducted through Printed qualitative census-like forms, were given and filled as the means of collection of data. Personal interview was also subjected in most of the cases for elaborate view. The survey included almost 147 migrants of different nationalities and age groups in which 65% were male respondents and 35 % were female respondents. The survey was conducted within the migrants residing in different localities in Lahore, Pakistan.

The survey was carried out to determine whether language barrier plays a role in accessibility to healthcare of foreign students in Lahore. The sample size was pretty reasonable to make any deductions. Majority of the male students who were questioned, were from the age group 23-26, categorized mostly in the tertiary educational level. The students questioned belonged to different countries; however, the majority of the students who participated in the survey were from Sudan, Somalia and Nepal. Though, there were also students from the Middle Eastern countries, China, Iran, and even America and Russia.

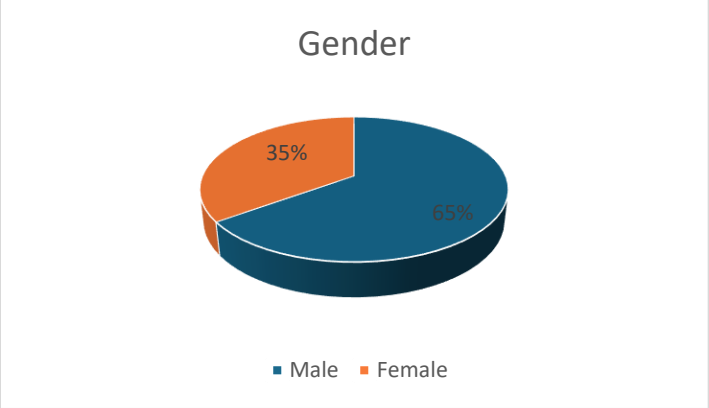
Majority of the female students, who were questioned were from the age group 18-22 and majority of the students were categorized mostly in the tertiary educational level. The students questioned were of different

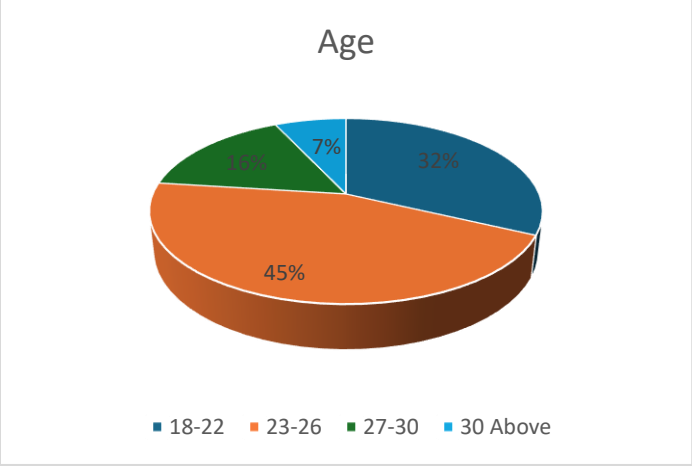
nationalities; however, a large number of students were from Somalia, Sudan, Jordan and Nepal, there were also students from the Middle Eastern countries, China, Iran, and even America, England and Australia.

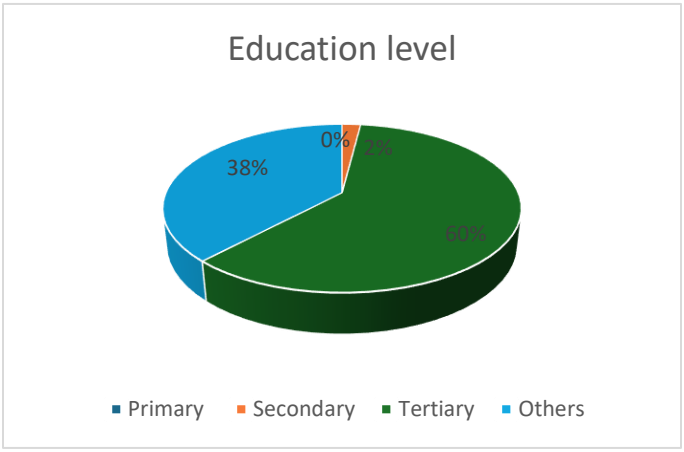
The information collected included the; Age, gender, education level, Nationality, lack of confidence" as barrier in effective communication, understanding of resident country language, regular intake of medicine, Communication style preference.

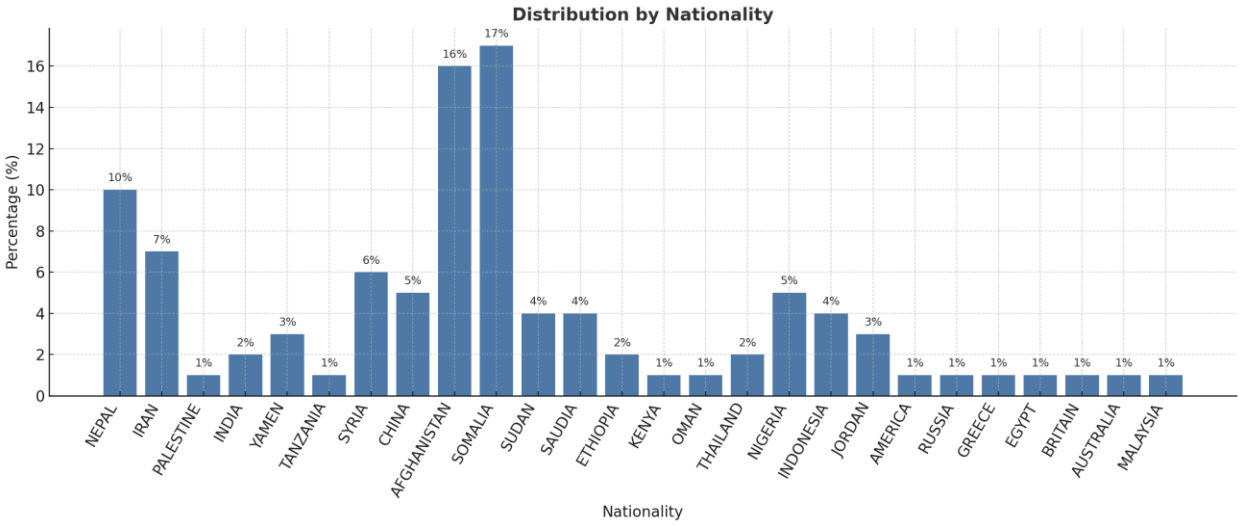
RESULTS

The survey included almost 147 migrants of different nationalities and age groups in which 65% were male respondents and 35 % were female respondents. The survey was conducted within the migrants residing in different localities in Lahore, Pakistan.



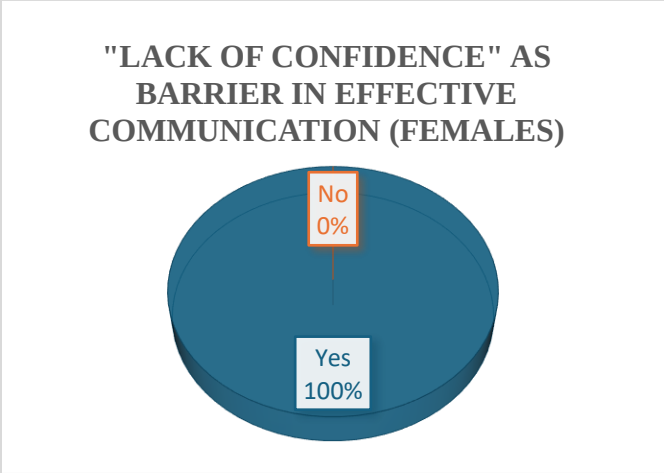


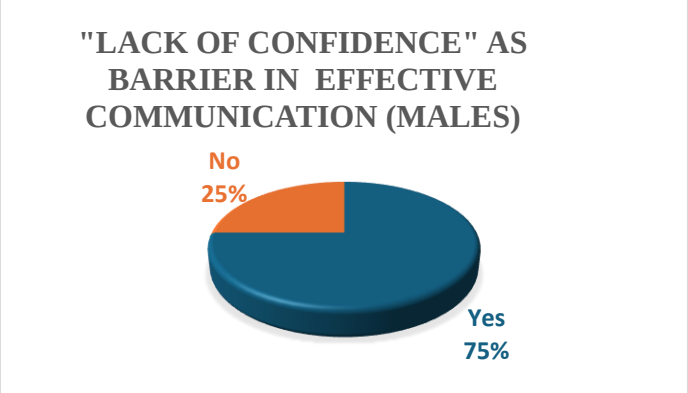




1. **"Lack of confidence" as barrier in effective communication**

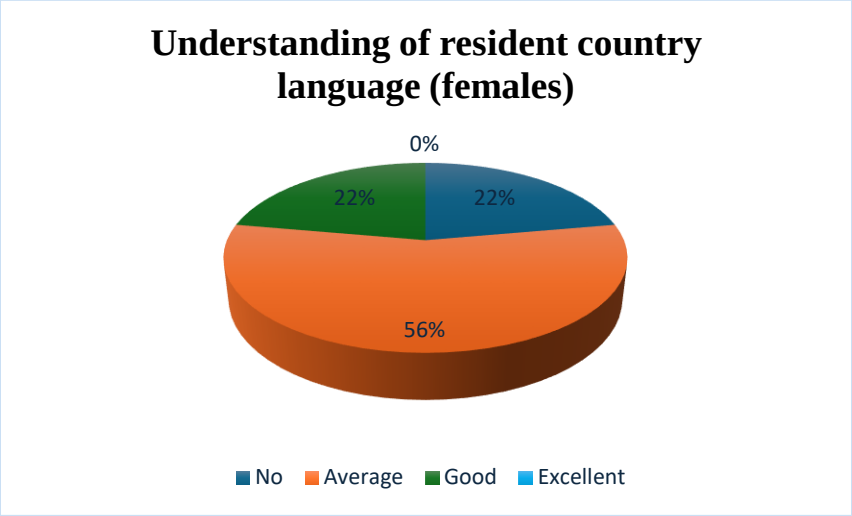
   It is found that almost 100% of female respondents and about 75% of male respondents thought that the most common frequent hurdle is the lack of confidence and on personal interviewing all that was pertaining to the lack of knowledge of the resident country language.

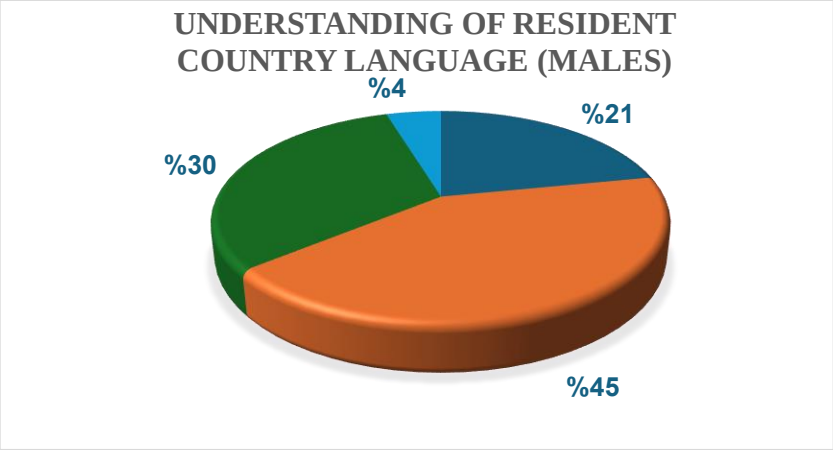




2. Understanding of resident country language

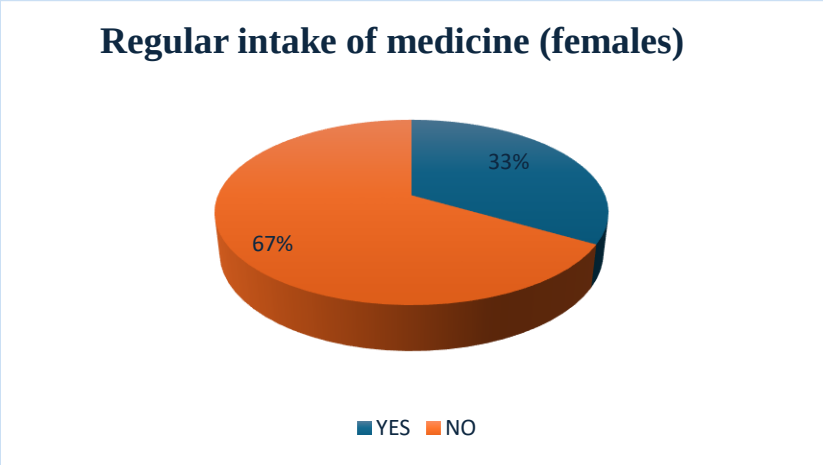
The survey findings of migrants in Pakistan are not at the level of satisfaction, as Majority of the respondents about 56% females and 45% males understood the resident language at average level but not good enough to address their health care issues.

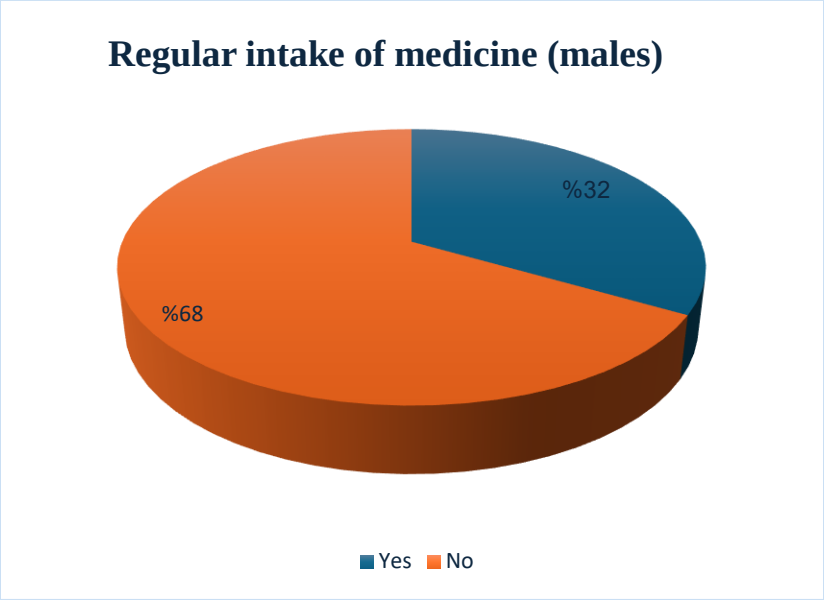




3. Regular intake of medicine

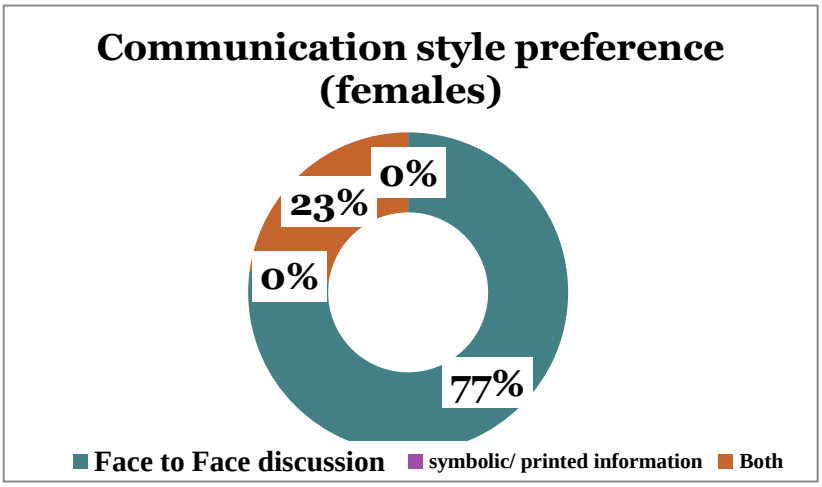
On the issue of taking medicines regularly about 67% female and 68% male respondents responded in negative.

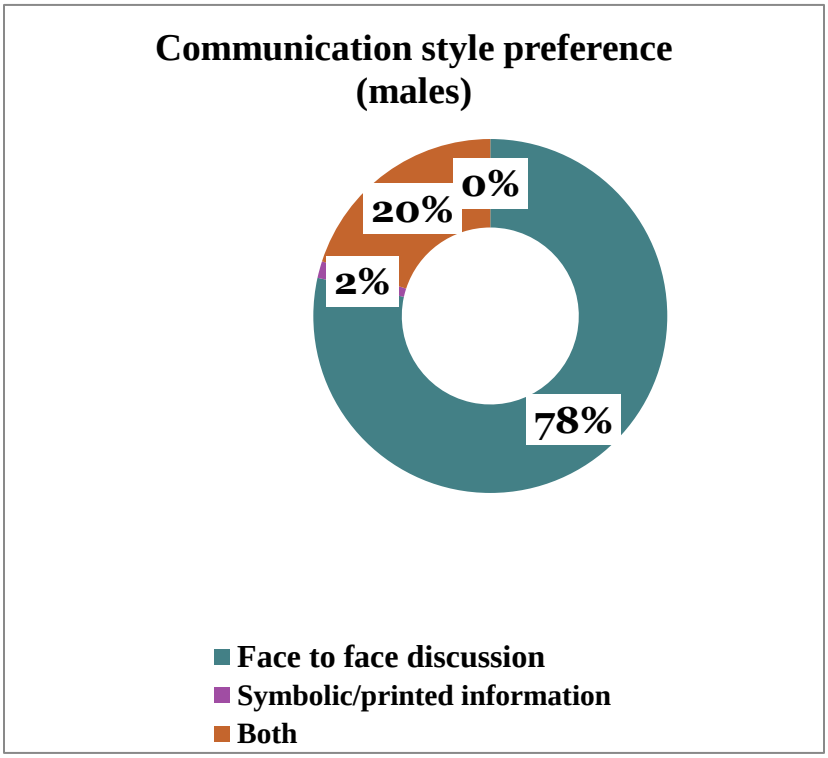




4. Communication style preference

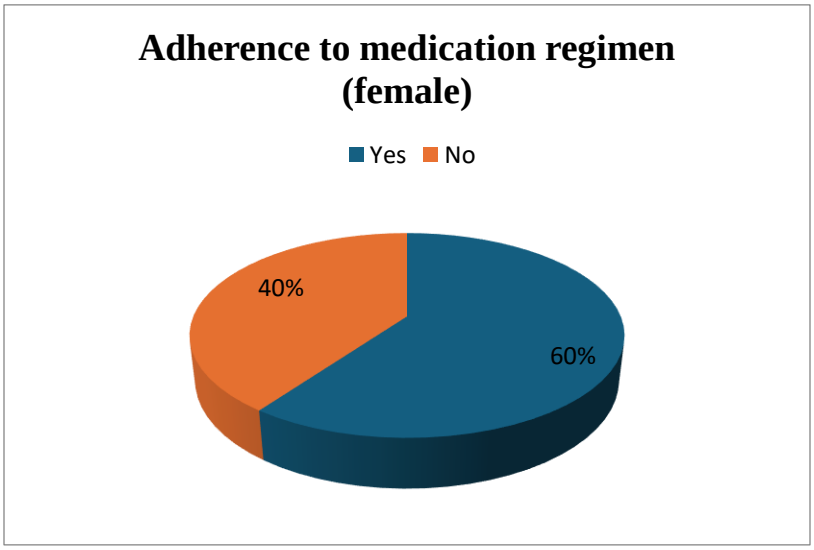
About 77% female and 78% male migrants believed in face-to-face discussion with their health care provider for addressing their health care needs.

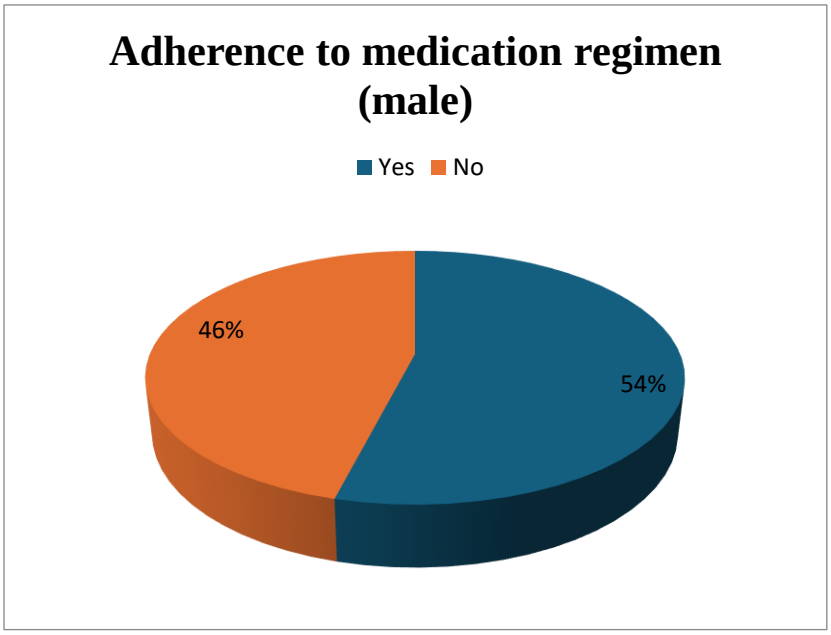




5. Adherence to medication regimen

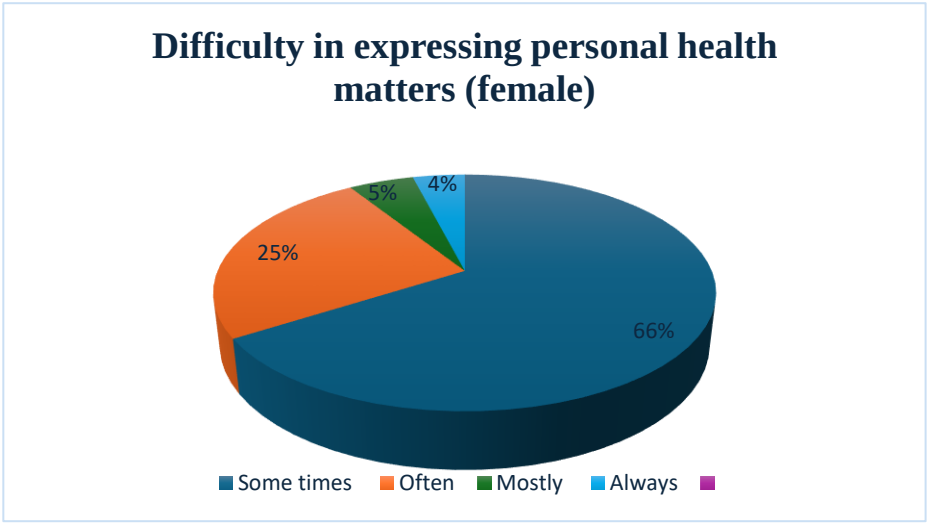
About 40% female and 46% male respondents responded in positive

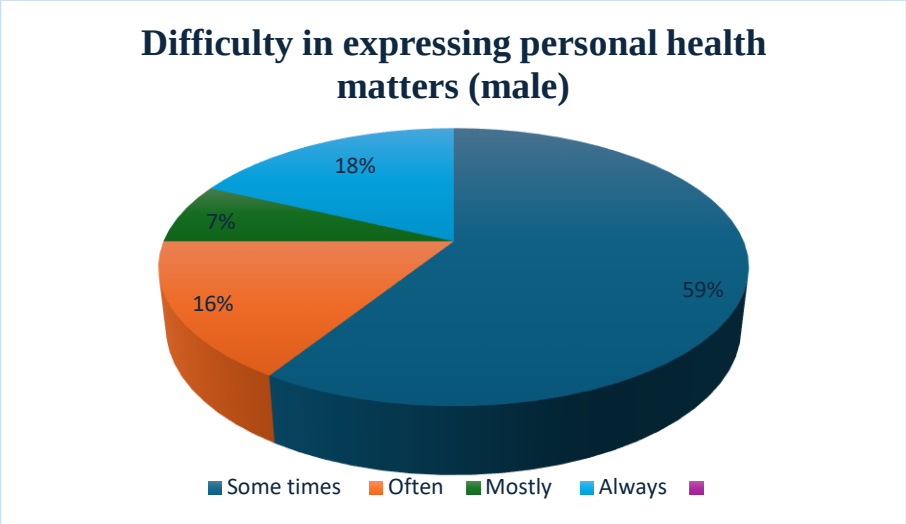




6. Difficulty in expressing personal health matters

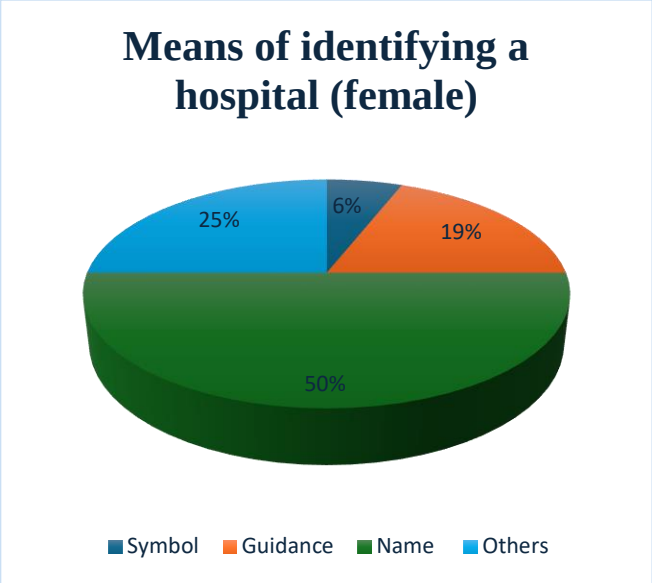
About 66% females and 59% males face difficulty in expressing personal health matters

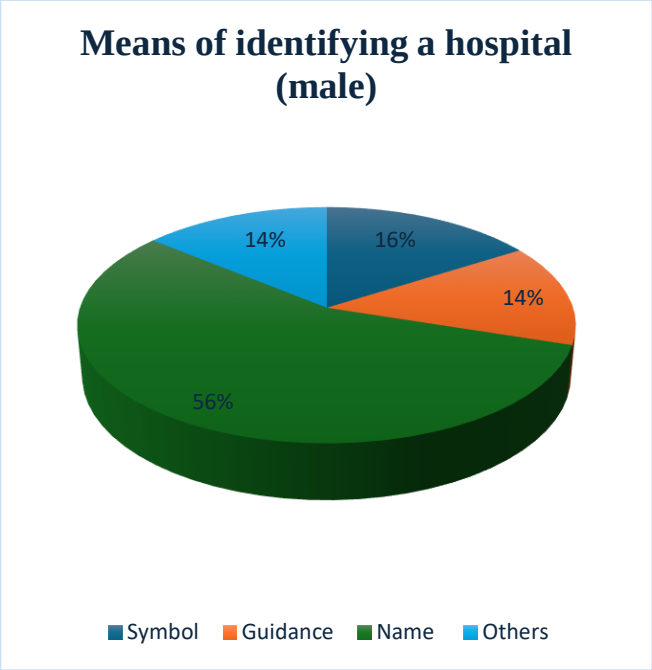




7. Means of identifying a hospital

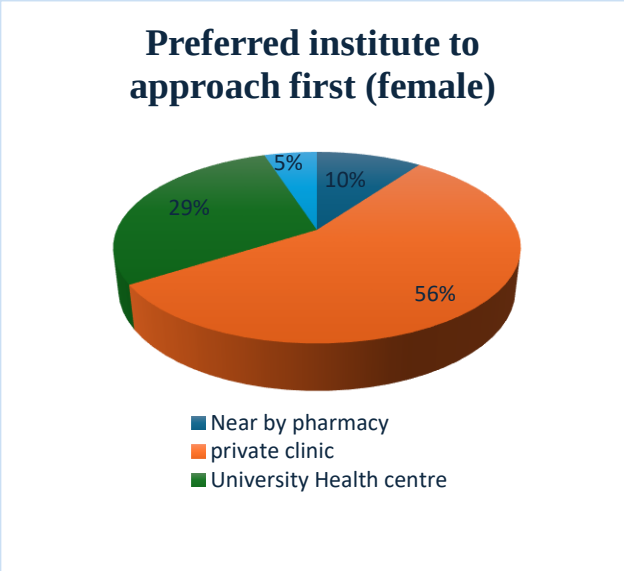
Majority of female and male migrants identify a hospital by name.

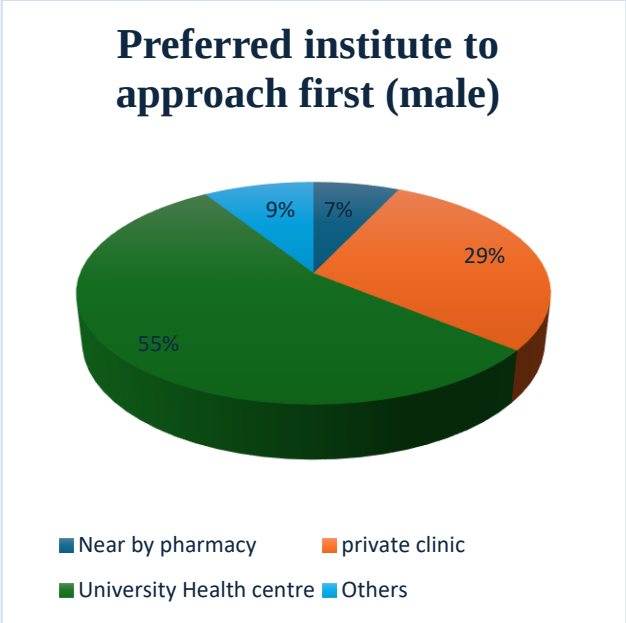




8. Preferred institute to approach first

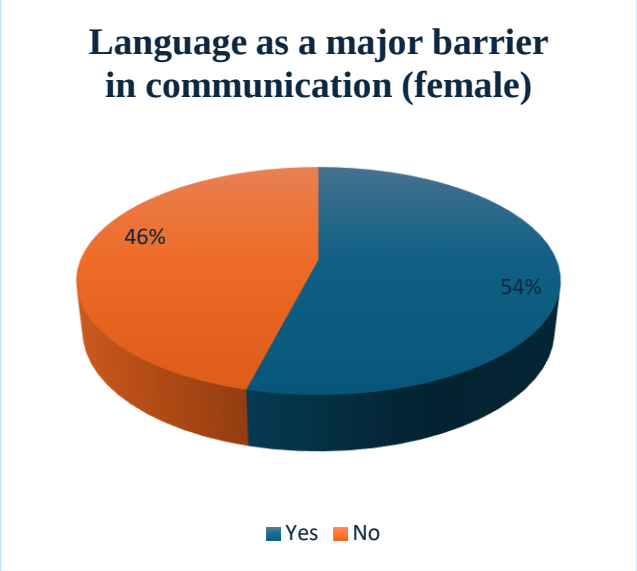
56% of female migrants prefer to approach private clinic in case of any illness while 55% of male migrants prefer to approach university health Centre.

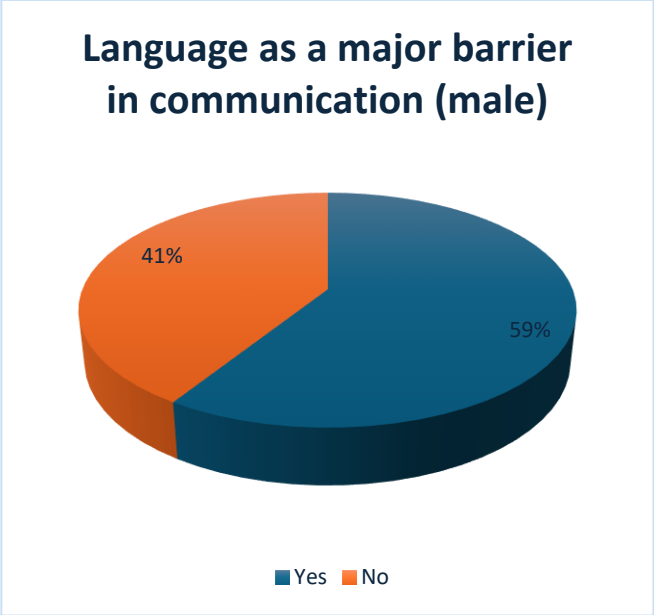




9. Language as a major barrier in communication

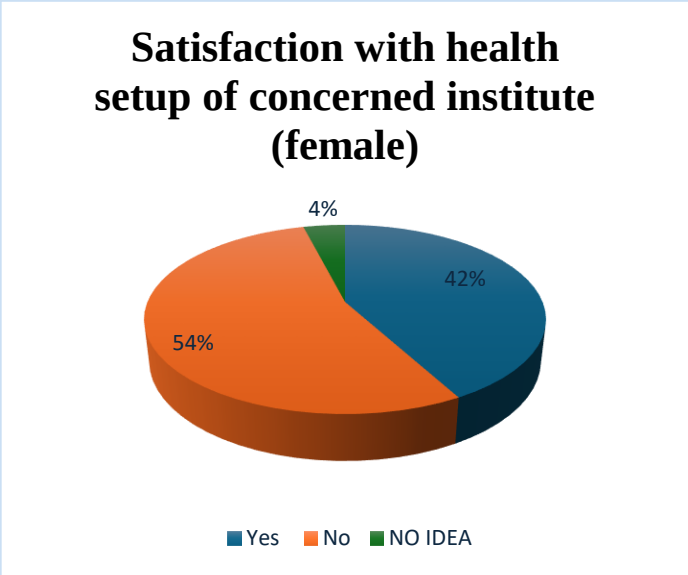
About 54% female and 59% male respondents consider language as major barrier in communication with health care provider.

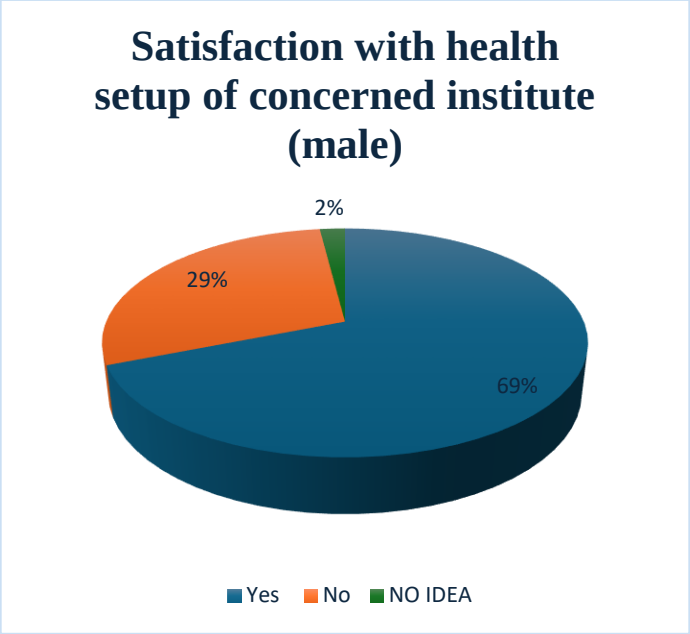




10. Satisfaction with health setup of concerned institute

42% female and 69% male respondent's response was positive.





The data was analyzed using SPSS (IBM, version 16). Descriptive analysis was performed to estimate the percentages and frequencies. Association of understanding of resident's country language and independent variables including demographics were estimated using Pearson's Chi-square. Non-parametric Manny-Whitney test was used to compare the difference between health-related issue and understanding of country language.

Out of 147 participants, 96 (65.3%) male and51 (34.7%) were female. Of these, 65(44.2%) were of age between 18-22 years, 59(40.1%) of age between 23-26 years, 17(11.6%) of age between 27-23 and 6(4.1%) of age above 30 years. Most of the participants 98(66.7%) had tertiary level of education and 49(33.3%) participants had other level of education. A total of 34(23.1%) participants had no knowledge of country language while 113(76.9%) of participants had knowledge of country language. For most of the participants, preferred institute to approach first was private clinic 82(55.8%) followed by university health care 43(29.3%), nearby institute 15(10.2%) and other 7(4.8%) respectively. Data suggested that participants used mostly names 73(49.5%) as a mean of identifying hospital, 28(19.0%) take guidance, 9(6.1%) used symbols and 37(25.2%) of participants used other means of identifying hospital. A total of 79(53.7%) preferred face to face discussion as communication style and 43(29.3%) preferred symbolic/printed information. However, 25(17.0%) preferred both communication style (Table 1).

Table 1. ***Descriptive characteristics of sample***

Characteristics	***f***	***%***
Gender		
Male	96	65.3
Female	51	34.7
Age		

18-22 year	65	44.2
23-26 years	59	40.1
27-30 year	17	11.6
above 30 years	6	4.1
Education		
Primary	0	0
Secondary	0	0
Tertiary	98	66.7
Other	49	33.3
Understanding of resident country language		
No	34	23.1
Yes	113	76.9
Preferred institute to approach first		
Nearby	15	10.2
Private clinic	82	55.8
University health care	43	29.3
Other	7	4.8
Means if identifying hospital		
Symbol	9	6.1
Guidance	28	19.0
Name	73	49.7
Other	37	25.2
Preferred communication style		
Face to face discussion	79	53.7
Symbolic/printed information	43	29.3
Both	25	17.0

Results of association between health-related variables with understanding of country's language revealed that gender has no association with understanding of country's language ($p > .05$) (table 2). 24(70.6%) of male and 10(29.4%) of female had no knowledge of country's language while 72(63.7%) of male and 41(36.3%) had knowledge of country's language. Mostly participants of age between 18-22 years and 23-26 years had knowledge of country's language (42(37.2%) and 53(46.9%) respectively). Similarly, a total of 23(67.6%) participants of age 18-22 years did not have knowledge of country's language. Education level was approximately same in both groups i.e. 21(61.8%) of those who had no knowledge of language and 77(68.1%) of those of had knowledge of language have tertiary level of education.

Participants of both group showed almost equal level of difficulty in expressing health matters (see table 2). Participants 19(55.9%) who did not have knowledge of language and 60(53.1%) who have knowledge reported that they sometimes have difficulty in expressing health matters. Results revealed that 23(67.6%)

of participants who do not have knowledge of language mostly private clinic followed by 8(23.5%) who approached nearby and only 3(8.8%) approach university health care. Among those who have knowledge of language, 59(52.2%) approach private clinic followed by 40(35.4%) approach university health care and only 7(6.2%) approach nearby institute. Majority of those having knowledge of language 63(53.1%) and those not having knowledge 16(47.1%) prefer face to face discussion for communication (table 2).

Table 2. ***Association of demographic and health related variables with understanding of resident country language***

Variables	Understanding of country Language		*p value*
	No (n=34)	Yes(n=113)	
Gender			
Male	24(70.6%)	72(63.7%)	.54
Female	10(29.4%)	41(36.3%)	
Age			
18-22 year	23(67.6%)	42(37.2%)	.01**
23-26 years	6(17.6%)	53(46.9%)	
27-30 year	4(11.8%)	13(11.5%)	
above 30 years	1(2.9%)	5(4.4%)	
Education			
Tertiary	21(61.8%)	77(68.1%)	.53
Other	13(38.2%)	36(31.9%)	
Difficulty in expression health matters			
Sometimes	19(55.9%)	60(53.1%)	.15
Often	6(17.6%)	31(27.4%)	
Mostly	0(0.0%)	7(6.2%)	
Always	3(8.8%)	3(2.7%)	
Never	6(17.6%)	12(10.6%)	
Preferred institute to approach first			
Nearby	8(23.5%)	7(6.2%)	.00***
Private clinic	23(67.6%)	59(52.2%)	
University health care	3(8.8%)	40(35.4%)	
Other	0(0.0%)	7(6.2%)	
Means if identifying hospital			
Symbol	6(17.6%)	3(2.7%)	.00***
Guidance	15(44.1%)	13(11.5%)	
Name	13(38.2%)	60(53.1%)	
Other	0(0.0%)	37(32.7%)	

Preferred communication style			
Face to face discussion	16(47.1%)	63(55.8%)	.24
Symbolic/printed information	9(26.5%)	34(30.1%)	
Both	9(26.5%)	16(14.2%)	

Results also revealed that there was no significant difference in regular intake of medicine, adherence to medication, financial hurdles in purchasing medicine, seeking others help to address health issues, understanding doctor's directions, lack of confidence as barrier of effective communication, effects of migration on general health, physical disability as a hurdle in approaching hospital and satisfaction with health care provider in relation to understanding of language. However, participants who did not have understanding of country's language had difficulty in reading label information of medicines, in consulting pharmacist regarding medication, showed need of translator for interpersonal communication, reported influence of financial status on health, cultural restrictions in approaching medical care, religious bar in seeking medical care and seeking past medical history ($p<.05$) as compared to participants having knowledge of language have no difficulty. Participants not having knowledge of language showed satisfaction with health setup of medical institute as compared to those having knowledge of language ($p<.05$) as they were not satisfied with setup of concerned institute (see Table 3).

Table 3. Comparison of Health-related difficulties with understanding of resident's country language

Health related difficulties	**Understanding of country Language**		***p value***
	No (n=34) ***M(SD)***	**Yes (n=113)** ***M(SD)***	
Regular intake of medicine	2.0(.50)	2(.45)	.10
Adherence to medication regimen	1.0(.44)	1.0(.49)	.06
Financial hurdles in purchasing medicines	2.0(.00)	2.0(.00)	1.0
Difficulty in reading label information	1.0(.61)	2.0(.46)	.00***
Seeking others help to address health issues	1.0(.47)	1.0(.49)	.29
Consulting pharmacist regarding medications	1.0(.41)	2.0(.49)	.00***
Need of translator for interpersonal communication	2.0(.49)	2.0(.33)	.00***
Doctor's directions understanding	1.0(.35)	1.0(.24)	.11
Lack of confidence as barrier for effective communication	1.0(.00)	1.0(.00)	1.0
Effects of migration on general health	1.0(.43)	1.0(.47)	.26
Influence of financial status on health	2.0(.48)	2.0(.28)	.00***
Cultural restrictions in approaching medical care	2.0(.48)	1.0(.49)	.01**
Religious bar in seeking medical care	2.0(.43)	2.0(.24)	.00***
Physical disability as a hurdle in approaching a hospital	2.0(.17)	2.0(.13)	.67

Satisfaction with health care provider	1.0(.48)	1.0(.47)	.93
Satisfaction with health setup of concerned institute	1.0(.61)	2.0(.55)	.04*
Seeking past medical history by pharmacist	2.0(.48)	2.0(.35)	.01**

Reliability

The calculated reliability value of the ten items of this scale is 0.577 which is moderately high from the benchmark set by the statisticians.

Table – 1

Cronbach's Alpha	N of Items
.577	17

DISCUSSION

The survey conducted among foreign students in Lahore aimed to explore whether language barriers influence access to healthcare services. Among male respondents, most were between 23 and 26 years old and enrolled in tertiary education, with participants originating mainly from Sudan, Somalia, and Nepal, alongside others from China, Iran, and the Middle East. The findings revealed that while a majority were able to communicate in the local language, 21% reported no familiarity at all. Most students occasionally faced difficulties discussing personal health issues, although 18% expressed no hesitation. Institutional healthcare centres were the preferred choice for initial consultation, and face-to-face interaction was widely favoured. Interestingly, 46% admitted to poor adherence to prescribed medication, while three-quarters denied financial obstacles in obtaining care. Confidence appeared to be a major issue—75% admitted their lack of confidence limited effective communication with healthcare providers. Despite this, most students found healthcare professionals approachable and did not require interpreters. About 59% identified language as a major communication barrier, though cultural and religious factors were found to have minimal influence. The majority were satisfied with both healthcare providers and institutional setups, though adherence and communication gaps persisted.

In contrast, the female participants—mainly aged 18 to 26, also from countries like Somalia, Sudan, Jordan, and Nepal—reported slightly higher challenges related to confidence and communication. Most identified themselves as average in the local language, with a notable portion reporting poor understanding. About 66% said they sometimes had trouble discussing health matters, and 25% admitted to frequent hesitation. Unlike males, 56% of females preferred private clinics, though face-to-face communication remained the favored method. Nonadherence to medical regimens was even higher among females (60%), despite no reported financial barriers. A significant 100% acknowledged that lack of confidence was a major hindrance to effective communication, and 54% recognized language as a key barrier—slightly lower than among males. Although most expressed satisfaction with healthcare providers, over half were dissatisfied with institutional setups. Cultural and religious constraints were again reported as minimal.

However, it is important to acknowledge potential limitations due to misinterpreted or inaccurate responses. Participants may have withheld personal information or misunderstood questions, particularly regarding financial hardship or medication adherence. For instance, while 90% denied financial barriers, interviews suggested that nearly 40% might struggle with medication costs. Similarly, questions about reading medicine labels or following doctors' directions may have been misunderstood, leading to discrepancies between reported and actual behaviors. Such response biases and misunderstandings could affect the study's accuracy, emphasizing the need for culturally sensitive, well-structured questionnaires and perhaps follow-up qualitative interviews to validate findings. Overall, the discussion highlights that while financial, cultural, and religious barriers are minimal, language barriers and lack of confidence remain significant factors affecting healthcare access for foreign students in Lahore.

CONCLUSION

The study concludes that language and communication barriers significantly influence the healthcare experiences of migrants and foreign students in Pakistan. Individuals with low health literacy are more likely to make medication or treatment errors, have difficulty adhering to medical regimens, and struggle to navigate the healthcare system effectively. Consequently, they face a higher risk of hospitalization compared to those with adequate health literacy. These findings highlight the urgent need for active involvement of healthcare providers in educating, counselling, and understanding the unique health challenges faced by migrants. Culturally sensitive communication strategies, multilingual health materials, and targeted counselling approaches should be implemented to enhance comprehension and trust. By adopting diverse methods of communication and patient engagement, healthcare systems can improve accessibility, reduce medical errors, and ensure that migrants receive equitable and effective care.

REFERENCES

Agency for Health Care Research and Quality (AHRQ). 2011. Health Literacy Interventions and Outcomes: an Update of the Literacy and Health Outcomes Systematic Review of Literature, 2011 (Retrieved November 2013)

Andrulis, D., & Brach, C. (2007). Integrating literacy, culture, and language to improve health care quality for diverse populations, *American Journal of Health Behavior. 2007*(31 supplement), S122–133. Retrieved on May 4, 2009 from www.cpehn.org/pdfs/Integrating%20Literace%20Paper%20-%20Andrulis.pdf

Bohlman L, Panzer AM, Kindig DA, Editors, Committee on Health Literacy. Washington, DC:

http://livingwillcampaign.webs.com/hl/background1b.html

http://www.diffen.com/difference/Qualitative_vs_Quantitative

http://www.healthliteracy.org.nz/about-health-literacy/background-and-brief-history-of-health-literacy/

Institute of Medicine and Nielsen-Bohlman, L., Panzer, A. M., Kindig, D. A., http://www.nap.Health Literacy: A Prescription to End Confusion (Retrieved November 2013)

Institute of Medicine. 2004. *Health Literacy: A Prescription to End Confusion*. Nielsen-

Institute of Medicine. Health Literacy. A Prescription to End Confusion. 2004.

Kate Singleton, MSW, LCSW, Elizabeth M. S. Krause, AB, SM, 2009, "Understanding Cultural and Linguistic Barriers to Health Literacy"

Kutner, M., Greenberg, E., Jin,Y., and Paulsen, C. (2006). The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy (NCES 2006-483).U.S.Department of Education.Washington, DC: National Center for Education Statistics.

Paul M. Schyve, MD, Language differences as a barrier to quality and safety in Health Care: The joint commission perspective. Society of General Internal Medicine 2007 Nov;22 Suppl 2:360-1. Cited in PubMed PMID: 17957426 [PubMed - indexed for MEDLINE]

The National Academies Press.

United States Department of Health and Human Services. Quick Guide to Health Literacy Fact Sheet: Health Literacy Basics. (n.d.). Office of Disease Prevention and Health Promotion. Retrieved November, 2013, from http://www.health.gov/communication/literacy/quickguide/factsbasic.htm

Weiss, B. D., American Medical Association., & AMA Foundation. (2007). Health literacy and patient safety: Help patients understand. Chicago, Ill: AMA Foundation.