

## **Code-Switching among Healthcare Workers and Patient Comprehension in Ughelli Central Hospital, Delta State**

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**Abstract.** *This study looks at the part code-switching plays in healthcare communication at Ughelli Central Hospital, Delta State. Code-switching is a regular occurrence in healthcare environments given Nigeria's multilingual environment, when many local languages are spoken alongside English. The paper investigates the elements affecting code-switching, its supposed advantages, and the possible difficulties it causes to provide efficient healthcare. The study involved a sample of 255 respondents including patients and healthcare professionals. Structured questionnaires were used to gather data; Likert scale and percentage analysis was then applied in analysis. The results show that code-switching improves communication by making medical consultations more relevant, particularly in cases of healthcare professionals switching to local languages, therefore raising patient comfort and understanding. Excessive code-switching, particularly in individuals less adept in the languages being utilized, also generated questions regarding possible confusion. Although code-switching was proven to be very helpful for bilingual or multilingual patients, if not done sensibly it may cause discomfort for others. The study emphasizes the need of striking a balance between language use in medical environments to guarantee good communication, boost patient confidence, and prevent misinterpretation. Advice calls for bilingualism, training healthcare professionals in language competency and communication techniques, and creation of multilingual materials to increase patient understanding and satisfaction.*

**Key words:** *Code-Switching, Healthcare Workers, Patient Comprehension, Central Hospital.*

### **Introduction**

Language is a uniting tool and a means of enabling good communication among many groups. Though language is a commonality, it is crucial to understand that there are several ways or approaches of speaking even inside one language. Particularly in the context of cross-ethnic communication, the interaction between English and the native languages of Nigeria has produced phenomena including code-switching and code-mixing. In healthcare environments such Ughelli Central Hospital, Delta State, the dynamics of communication especially the practice of code-switching play a major influence in patient comprehension and the general efficacy of healthcare delivery. This paper explores the phenomena of code-switching among medical professionals and its effects on patient comprehension in this framework.

Language is naturally social, hence its function in communication is vital for meaning transmission, overcoming cultural gaps, and promoting good connections. One could consider it as a tool for expression and a sign of identity as well as for communication. In multilingual countries such as Nigeria, where several languages coexist, language serves both a dividing and a connecting agent. With about 500 indigenous languages spoken in Nigeria, the language problem gets more complicated

in daily contacts as well as in professional ones. Although English is the official language and is sometimes the lingua franca, local languages are also rather important for communication, particularly in casual contacts.

Code-switching and code-mixing are hence natural linguistic behaviors in this setting. In code-switching, two or more languages or dialects alternately are used in a conversation or discussion (Enisire, 2024). It happens when speakers switch between languages depending on contextual elements such as the language competency of the interlocutor, the topic, or the necessity to convey a specific notion. Conversely, code-mixing is the combining of pieces from several languages into a sentence such as words, phrases, or clauses. Many places, especially healthcare contexts, allow one to see both events. Better health outcomes follow from research on patient language preferences in nursing care, identification of patient preferences, and provision of suitable treatment based on them. Patients who have psychological support and values respected are often more likely to feel relieved of their condition and other pressures. Often, the choice of language is determined by both communicative participants aiming at different communication objectives. Giles (1991) argues that parties punctuate communicative sequence by converging and diverging often subconsciously, as long as both parties share the same language sector, a common phenomenon in service encounters in multilingual environments.

Although the phrases "code-switching" and "code-mixing" are used synonymously most of the time, academics have distinguished them. While code-mixing is the incorporation of lexical items or grammatical traits from two languages inside one phrase or clause, Muysken (2000) defines code-switching as the fast alternation of numerous languages inside a single speech event. Crystal (1987) also points out that multilingual speakers alternate between two languages during conversation, therefore engaging in code-switching. Depending on the speaker's language ability, the necessity to properly transmit meaning, or the cultural setting, this variation may occur inside or at sentence boundaries. According to Weinreich (1974), bilinguals can shift between languages with different degrees of skill; their exposure to and use of the languages will therefore affect this ability. This emphasizes the personal character of code-switching, which is molded by the particular interaction and setting of the communication.

Code-switching might have several purposes for the staff members of Ughelli Central Hospital. When medical professionals switch languages because of a lack of suitable terms in one language or the necessity to transmit technical or culturally particular knowledge, it may happen as a reflex action. Sometimes the necessity to establish rapport or comfort with patients drives code-switching as well. Like any language tool, code-switching has possible negative effects as well as advantages, particularly in environments like healthcare where understanding is vital.

### **Code-Switching in the Healthcare Setting**

Correct diagnosis, treatment, and patient care in healthcare environments depend on good communication. In these kinds of situations, especially in multilingual environments where both patients and healthcare professionals may not have the same language competency, code-switching is rather useful in promoting communication. As observed in Ughelli Central Hospital, the interchange between English and local languages reflects the complicated linguistic scene of Nigeria. Code-switching is a practice used by healthcare professionals mostly to make sure patients grasp the medical knowledge they are delivering. When describing medical jargon, procedures, or diagnosis, for instance, doctors and nurses could change from English to a native tongue. Particularly for patients who are more comfortable with their indigenous languages than English, this can help them to understand better and give them comfort.

For some, code-switching can improve communication; for others, especially monolingual patients who might not be able to grasp the language used, it can create major obstacles. For example, a multilingual healthcare practitioner interacting with a patient who is not fluent in their local tongue could cause confusion, misinterpretation, or even misdiagnosis if they then switch to that language. Moreover, too high code-switching may cause uncertainty and make it more difficult for patients to completely understand the given information, therefore impeding effective communication. Using a

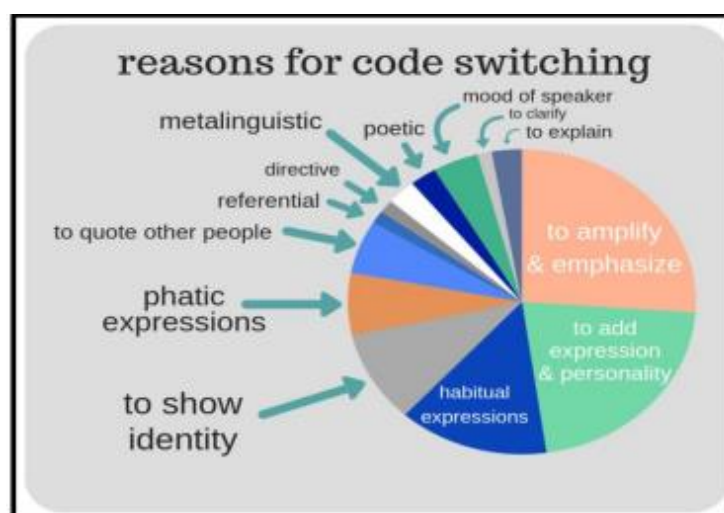
lingua franca like English and include Nigerian pidgin may help to increase patient understanding in healthcare environments like Ughelli Central Hospital, where patients from many linguistic origins interact with medical workers. Examined in terms of their effects on patient comprehension, contentment, and the general efficacy of healthcare delivery, are code-switching techniques.

### Code-Switching and Patient Comprehension

Ensuring patients understand medical information and instructions depends on effective communication in healthcare. In healthcare environments, miscommunication can result in negative effects include improper pharmaceutical use, non-compliance with treatment regimens, or neglect of crucial health advise. Consequently, it is imperative to know how code-switching affects patient comprehension.

Among medical professionals and patients at Ughelli Central Hospital, code-switching between English and local languages such as Urhobo, Isoko, and Ibo is rather widespread Code-switching can occasionally help multilingual healthcare professionals especially when medical terms are complicated or foreign to the patient clear their message. This approach might, however, also have unanticipated results. Code-switching can make it difficult for patients who speak less of one or both languages to completely understand vital medical information. When medical professionals mix languages in ways that are not obviously indicated, patients' understanding of medical directions may suffer. Patients who do not speak the local language may become puzzled or nervous if a bilingual healthcare practitioner moves from English to that language without giving clear context. This can cause a breakdown in communication and, therefore, lower faith in healthcare professionals.

In language, code switching is the phenomena wherein a speaker alternately uses two or more languages or dialects in the same discussion. Many multilingual countries, including Malaysia, where English is the official language but Malay, Chinese, Tamil, and other languages are also rather common, have this incidence (Nur'Aini and Fanani, 2019; Enisire, 2024). Code flipping in the medical register depends much on the degree of patient education. The degree of education of a patient influences the manner the doctor interacts with them. For instance, the doctor can be more prone to use medical jargon and sophisticated terminology during their interaction if the patient has more education level. As said TorabMiandoab, (2023) should the patient have a lesser level of education, the doctor might choose a language or dialect the patient is more likely to understand. Furthermore, patients' understanding is not depending just on the language ability of the healthcare provider. Medical information is better understood in part by cultural elements, social dynamics, and patient past experiences with healthcare institutions. For instance, even if the healthcare provider is code-switching to a language the patient is comfortable with, a patient from a rural location could not completely grasp technical jargon used by a professional. In these situations, a more strategic approach to language use and a more complex knowledge of the needs of the patient could be required.



**Figure 1:** The impact of patient education level on code switching in medical register (Source: owlcation.com, 2022)

Code switching in the medical register in Malaysia is influenced in great part by patient education level. This is so since the nation boasts a varied population with varying degrees of education. In a normal Malaysian hospital, for instance, the doctor might speak with a Malay patient in Malay whereas a Chinese patient is spoken with in English or Chinese (Nur'Aini and Fanani, 2019). Depending on the patient's degree of comprehension, the doctor might also combine English and Malay. Generally, code flipping in the medical register in Malaysia is largely influenced by the degree of patient knowledge. The degree of education of the patient should be known to the doctors, who should modify their terminology. Torab-Miandoab claims that this will guarantee that the doctor is speaking in a language the patient is comfortable with and that the patient can grasp the material the doctor is presenting them (Kannampallil and Adler-Milstein, 2023). This guarantees that the patient receives the best possible care and helps the doctor to establish a closer relationship with him.

### **Factors Influencing Code-Switching Among Healthcare Workers**

Several factors influence the decision of healthcare workers to engage in code-switching:

1. **Patient Needs:** Healthcare workers often switch languages to ensure that patients understand medical information. When dealing with patients who are less proficient in English, healthcare workers may switch to a language that the patient is more comfortable with, ensuring the message is received accurately.
2. **Cultural Sensitivity:** Code-switching can be an expression of cultural sensitivity. By using a patient's native language, healthcare workers demonstrate respect for the patient's cultural background, which can build trust and enhance communication.
3. **Language Proficiency:** Healthcare workers' proficiency in both English and local languages plays a significant role in their decision to switch languages. For instance, a healthcare worker may switch to a local language if they find that medical terms in English are difficult to translate or are not readily understood by the patient.
4. **Social Context:** The social context of the interaction also influences language use. In informal or less technical conversations, healthcare workers may switch to a local language to establish rapport with patients and make them feel more comfortable.
5. **Time Constraints:** In some cases, time constraints can push healthcare workers to code-switch quickly. In emergency or high-pressure situations, workers may choose to switch to a language they believe will allow them to communicate more efficiently and reduce patient anxiety.

### **Research Purpose and Questions**

The purpose of this study is to examine the practice of code-switching among healthcare workers in Ughelli Central Hospital, Delta State, and its impact on patient comprehension. Specifically, the study seeks to understand how healthcare workers' use of language alternation between English and indigenous languages affects patients' understanding of medical information and the overall healthcare experience. The research questions guiding this study are:

1. What are the factors that influence code-switching among healthcare workers at Ughelli Central Hospital?
2. How does code-switching affect patient comprehension and the effectiveness of healthcare communication at the hospital?
3. What are the perceptions of patients regarding the use of code-switching by healthcare workers?

### **Theoretical framework**

Giles initially proposed the social cognitive theory known as Communication Accommodation Theory (CAT), first created in 1973. It emphasizes on the mechanisms behind a person's awareness of society and the corresponding communicative actions inside. More precisely, CAT theory seeks to clarify the reasons behind and limitations guiding linguistic changes in human contacts. The theory investigates why and how people change their communication to fit situational, social, cultural, and relational contexts, so displaying flexibility and competence in communication in an attempt to

highlight the differences or similarities between their conversational partner and themselves (Giles & Coupland 1991).

Two underlying claims of Communication Accommodation Theory are The first claims that communicators are driven to change their language choices with regard to one another in order to convey values, attitudes, and intentions. The second claim implies that our reaction to someone depends on our interpretation and perspective of the speech of the person. The first assertion, convergence, happens when speakers match their discourse to that of the participant, therefore combining social acceptance of another. Convergence has also been characterized as the process by which people translate their speech technique to resemble those of people they are engaging with. People gathering together reveal a need for social acceptance, integration, and affiliation with the participants. Usually, others like convergence since it improves smooth interaction. Divergence is the second claim made by speech accommodation theory. In divergence, speakers aim to make their speech unique from the participants for numerous reasons, hence separating from other speakers. First, when speakers wish to keep their distance from others socially, divergence could be applied. This could happen if the speaker seeks for autonomy. This sort of divergence is called divergence for dissociation and usually happens throughout the contact. But divergence does not always reflect attitudes; speakers may vary for convenience of communication instead. Good and acceptable delivery of healthcare depends on effective communication. To improve effective communication during nurse-patient service contacts, constant alternation of language becomes essential to converge or diverge. The secret that either makes the nurse-patient interaction successful or unsuccessful is personoriented communication. Although there are various elements influencing recollection of information given by the doctor, first understanding has to come first.

## Methods

The study follows a descriptive research design. Patients at Ughelli Central Hospital and healthcare professionals (doctors, nurses, and other medical staff) make up the population for the research. Participants for the project will be chosen by use of a random sampling method. Structured surveys will be used to gather data on the frequency of code-switching, the elements driving its occurrence, and how it affects patient comprehension. Two components of the questionnaire one for people and one for healthcare professionals will be developed. Expert assessment will guarantee content validity of the instrument; statistical techniques will then be used to evaluate dependability. Descriptive statistics such as percentages and frequency counts will be used in data analysis to spot trends in code-switching habits and how they affect patient understanding.

**Table 1: analysis of demographic respondent**

Demographic Category	Category	Frequency (N)	Percentage (%)
<b>Gender</b>	Male	120	47.06%
	Female	135	52.94%
<b>Age</b>	18-30 years	75	29.41%
	31-40 years	85	33.33%
	41-50 years	55	21.57%
	51 years and above	40	15.69%
<b>Educational Level</b>	Primary	35	13.73%
	Secondary	95	37.25%
	Tertiary	80	31.37%
	Postgraduate	45	17.65%
<b>Occupation</b>	Healthcare Worker	120	47.06%
	Patient	135	52.94%
<b>Language Proficiency</b>	English Only	90	35.29%
	Nigerian Pidgin	145	56.86%
	Both English and Local Languages	20	7.84%
<b>Ethnic Group</b>	Urhobo	60	23.53%



	Epe	105	41.18%
	Itsekiri	40	15.69%
	Other	50	19.61%

The study had a balanced gender distribution with 120 males (47.06%) and 135 females (52.94%), suggesting the findings are applicable to both genders. Most respondents (33.33%) were in the 31-40 years age group, indicating significant exposure to code-switching. The 18-30 years group represented 29.41%, while 41-50 years and 51 years and above accounted for 21.57% and 15.69%, respectively. In terms of education, 37.25% completed secondary education, followed by 31.37% with tertiary education, indicating generally educated participants. Additionally, 13.73% had primary education, and 17.65% had postgraduate education. Healthcare workers made up 47.06% of the respondents, while patients comprised 52.94%, ensuring diverse perspectives on code-switching. Over half (56.86%) of the respondents speak local languages, such as Nigerian pidgin, suggesting the importance of local language proficiency for effective communication. 35.29% are proficient in English only, and 7.84% speak both English and local languages, highlighting the need for healthcare workers to adapt their communication strategies to accommodate these preferences.

**Research Question One:** What are the factors that influence code-switching among healthcare workers at Ughelli Central Hospital?

**Table 2: analysis of factors that influence code-switching among healthcare workers at Ughelli Central Hospital**

S/N	Factors Influencing Code-Switching	SA (%)	A (%)	N (%)	D (%)	SD (%)	Total (%)
1	Presence of bilingual patients	35.29% (90)	41.57% (106)	11.37% (29)	6.27% (16)	5.49% (14)	100%
2	Desire to improve patient understanding	43.53% (111)	38.04% (97)	8.63% (22)	5.49% (14)	4.31% (11)	100%
3	Need to explain medical terms more effectively	41.96% (107)	40.78% (104)	8.24% (21)	5.49% (14)	3.92% (10)	100%
4	Use of local language for faster communication	38.04% (97)	32.55% (83)	12.55% (32)	11.37% (29)	5.49% (14)	100%
5	Social and cultural factors (e.g., familiarity with local languages)	36.27% (92)	38.04% (97)	13.73% (35)	7.45% (19)	4.71% (12)	100%
6	Perceived comfort of the patient in a local language	34.51% (88)	34.51% (88)	15.29% (39)	9.80% (25)	5.88% (15)	100%
7	Healthcare worker's proficiency in local languages	30.98% (79)	31.37% (80)	19.61% (50)	13.33% (34)	4.71% (12)	100%
8	The healthcare worker's own language preference	28.63% (73)	30.59% (78)	17.65% (45)	17.25% (44)	6.27% (16)	100%
9	Presence of language barriers in the healthcare setting	41.57% (106)	38.04% (97)	12.55% (32)	5.49% (14)	2.35% (6)	100%
10	Institutional or policy encouragement of multilingual communication	23.53% (60)	23.53% (60)	21.57% (55)	19.22% (49)	12.94% (33)	100%

From the analysis, it's clear that factors like improving patient understanding, the need to explain medical terms, presence of bilingual patients, and language barriers are major influences on code-switching among healthcare workers at Ughelli Central Hospital. Social and cultural factors, the healthcare worker's language proficiency, and patient comfort in local languages are also significant.

However, institutional encouragement of multilingual communication appears to have a minimal impact on healthcare workers' decision to code-switch.

**Research Questions Two:** How does code-switching affect patient comprehension and the effectiveness of healthcare communication at the hospital?

**Table 3: Percentage Analysis of How Code-Switching Affects Patient Comprehension and Healthcare Communication**

S/N	Statement	SA	A	N	D	SD	Total (%)
1	Code-switching enhances patient comprehension of medical terms and procedures.	40 (15.69%)	100 (39.22%)	70 (27.45%)	30 (11.76%)	15 (5.88%)	100%
2	Code-switching helps healthcare workers build trust and rapport with patients from different linguistic backgrounds.	50 (19.61%)	110 (43.14%)	60 (23.53%)	20 (7.84%)	15 (5.88%)	100%
3	Code-switching allows patients to feel more comfortable asking questions and seeking clarification during consultations.	60 (23.53%)	90 (35.29%)	60 (23.53%)	30 (11.76%)	15 (5.88%)	100%
4	Code-switching reduces the likelihood of miscommunication between healthcare workers and patients.	45 (17.65%)	110 (43.14%)	65 (25.49%)	20 (7.84%)	15 (5.88%)	100%
5	Code-switching contributes to a better overall understanding of treatment plans and medical instructions.	50 (19.61%)	95 (37.25%)	60 (23.53%)	30 (11.76%)	20 (7.84%)	100%
6	Code-switching can lead to confusion or misunderstanding for patients who are not familiar with the switched language.	15 (5.88%)	45 (17.65%)	90 (35.29%)	80 (31.37%)	25 (9.80%)	100%
7	Code-switching can negatively affect the accuracy of patient diagnosis due to incomplete or unclear communication.	10 (3.92%)	30 (11.76%)	80 (31.37%)	90 (35.29%)	45 (17.65%)	100%
8	Healthcare workers' code-switching helps in simplifying complex medical jargon for patients.	55 (21.57%)	120 (47.06%)	50 (19.61%)	20 (7.84%)	10 (3.92%)	100%
9	Code-switching promotes clearer	50 (19.61%)	100 (39.22%)	70 (27.45%)	25 (9.80%)	10 (3.92%)	100%

	communication and better patient education during hospital visits.						
10	Frequent code-switching can disrupt the flow of communication and lead to fragmented information exchange.	20 (7.84%)	45 (17.65%)	85 (33.33%)	70 (27.45%)	35 (13.73%)	100%

A majority of respondents agree or strongly agree that code-switching enhances patient comprehension and helps in building rapport (Statements 1 and 2). Code-switching can lead to confusion for patients who are unfamiliar with the switched language, with significant disagreement in Statement 6. There is a tendency towards positive effects of code-switching when used to simplify complex medical terms, though not without some acknowledgment of its potential drawbacks (Statements 7 and 10).

**Research Questions Three:** What are the perceptions of patients regarding the use of code-switching by healthcare workers?

**Table 4: Percentage Analysis of Patients' Perceptions Regarding Code-Switching by Healthcare Workers**

S/N	Statement	SA	A	N	D	SD	Total (%)
1	Code-switching makes me feel more comfortable during my medical consultation.	50 (19.61%)	110 (43.14%)	60 (23.53%)	25 (9.80%)	10 (3.92%)	100%
2	Code-switching helps me understand medical explanations better, especially when medical terms are used.	60 (23.53%)	100 (39.22%)	65 (25.49%)	20 (7.84%)	10 (3.92%)	100%
3	Code-switching makes me feel that healthcare workers are trying to communicate effectively with me.	65 (25.49%)	95 (37.25%)	60 (23.53%)	25 (9.80%)	10 (3.92%)	100%
4	I find code-switching confusing and difficult to understand.	10 (3.92%)	25 (9.80%)	75 (29.41%)	100 (39.22%)	45 (17.65%)	100%
5	Code-switching between languages helps build a stronger relationship between me and my healthcare provider.	55 (21.57%)	120 (47.06%)	50 (19.61%)	20 (7.84%)	10 (3.92%)	100%
6	Code-switching improves my overall experience in the healthcare setting.	45 (17.65%)	105 (41.18%)	60 (23.53%)	35 (13.73%)	10 (3.92%)	100%
7	I feel that code-switching can make medical consultations more personal and relatable.	60 (23.53%)	100 (39.22%)	60 (23.53%)	25 (9.80%)	10 (3.92%)	100%
8	Code-switching sometimes makes me	15 (5.88%)	30 (11.76%)	90 (35.29%)	90 (35.29%)	30 (11.76%)	100%



	feel uncomfortable during consultations.						
9	Code-switching is essential for effective communication in a multilingual hospital environment.	70 (27.45%)	115 (45.10%)	50 (19.61%)	10 (3.92%)	10 (3.92%)	100%
10	I prefer when healthcare workers use only one language throughout my consultation.	5 (1.96%)	15 (5.88%)	75 (29.41%)	120 (47.06%)	40 (15.69%)	100%

Many respondents agreed that code-switching enhances their understanding, makes communication more personal, and improves the overall healthcare experience (Statements 2, 3, 5, 7, 9). Discomfort and Confusion: A significant portion of respondents found code-switching to be confusing and potentially uncomfortable (Statements 4, 8). Preference for One Language: A small proportion of patients expressed a preference for healthcare workers using only one language during consultations (Statement 10).

### Discussion of Findings

With 43.14% of respondents saying it helps healthcare professionals communicate efficiently, a good number of respondents saw code-switching favorably (table 2, Statement 3). This backs up studies by Baker (2006), which emphasizes code-switching as a tactic for bettering communication in multilingual environments—especially for patients not familiar with medical jargon. Patients also believed code-switching made consultations more personal (table 2, Statement 7), in line with Fishman's (1972) perspective that linguistic choice promotes connection.

But questions about comprehension emerged; 39.22% of respondents disagreed that code-switching helps grasp of medical explanations (table 3, Statement 2), implying that too frequent switching can lead to confusion (Poplack, 1980). Furthermore, 35.29% of respondents said they were uncomfortable with code-switching (table 3, Statement 8), therefore upsetting the flow of communication and generating confusion (Gardner-Chloros, 2009). These results highlight the requirement of balance since patients less competent in the languages used may find it difficult to follow the discourse, therefore causing possible misunderstandings (Auer, 1998).

The study validates code-switching as a crucial instrument in multilingual healthcare settings, particularly at Ughelli Central Hospital where linguistic variation is great. This backs Brock-Utne (2000), who contends that code-switching is necessary for language diversity to better grasp and comfort for patients. But as Kachru (1983) and Wei (2000) also point out, it also emphasizes the need of healthcare professionals evaluating patients' language competency and modifying their communication based on that. With many respondents perceiving that it strengthened ties, code-switching was ultimately determined to improve rapport and trust between patients and healthcare professionals (Statements 3 and 5). This is consistent with Trudgill (2000), who stresses the social relevance of language and advises that speaking a language patients know will help them feel more at ease and valuable during visits.

### Conclusion

In multilingual healthcare environments like Ughelli Central Hospital, code-switching is ultimately a widespread and usually successful communication tool. It could increase patient comfort, rapport, and knowledge of medical explanations by means of which Code-switching must be used carefully, though, so that it does not impede understanding for patients who might not be fluent in the languages being switched between. By teaching healthcare professionals to be aware of their language competency and to use language effectively, one may greatly enhance the quality of healthcare communication and guarantee that every patient receives good treatment.

## Recommendations

The results of the research guide the following recommendations

Training healthcare professionals to evaluate patients' language competency will help them to modify their communication style.

Professionals in the healthcare field must be fluent in both English and local languages if they are to properly interact with a varied patient group.

Though it can help with communication, code-switching should be used carefully to prevent overwhelming patients with too many language transitions. In their communication, healthcare professionals should strive for simplicity and clarity so that patients could follow the talk without doubt.

Patients should be informed by healthcare facilities about the part language plays in healthcare communication. This can involve outlining the advantages of code-switching and urging patients to seek explanation should they not grasp any terms or ideas.

Hospitals should think about creating multilingual patient instructional resources to augment spoken communication. These resources can help to guarantee patients completely grasp their diagnostic and treatment plans and aid to reinforce important knowledge.

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