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Do immigrants who stutter confront speech related anxiety in a foreign country?

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ABSTRACT

Purpose: The current study aimed at investigating the experience of immigrants who stutter in a foreign country.

Materials and methods: A questionnaire tapping details about the immigrants handling various communicative situations in a first and second language was configured and used in the current study. A total of 14 participants were enrolled in the study. Participants were sub-grouped based on the severity by using Stuttering Severity Instruments, 4th Edition (SSI-4). The composite scores on SSI-4 including the physical concomitants were used for sub grouping.

Results: The findings revealed that the amount of difficulty experienced by immigrants was directly proportional to the degree of stuttering. Participants had difficulty in communicating with boss and colleagues regardless of the language used. They experienced less difficulty while speaking in malls and courier persons. Participants who knew the native language Arabic could handle the situations better than individuals who did not know Arabic.

Conclusion: Stuttering would impede social participation and would increase anxiety. This speech-related anxiety is known to increase when these individuals immigrate to foreign countries.

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1. Introduction

Stuttering is a speech disorder, in specific it is a disorder characterized by repetition of sounds, syllables, or words; prolongation of sounds; and interruptions in speech is known as blocks. An individual who stutters would know what he/she would intend to say but they may not be able to execute because of the dysfluencies. These speech disruptions may be accompanied by secondary behaviors such as eye blinks, tremors, fist clenching etc. Stuttering can have a wider impact on the individual as it would affect the inter personal communication; the problem can also invade the job performance, opportunities and overall quality of life.

The symptoms of stuttering are highly individualistic making the disorder more complex. The individual who stutters may confront various difficulties in their routine. They may not be able to

cope up with the communication demands quite often. Persons who stutter (PWS) may also encounter new communicative demands every day. In other words, the communicative demands would impose new challenges to the person who stutter. Familiarity with the communication partner would play a major role in determining the stuttering severity. PWS may exhibit more problems while speaking to strangers compared to familiar people.

It was reported in an earlier study (Sarbin, 1943); that the severity of stuttering is directly dependent on the fact if the communication partner that the speaker has stuttering or not. In other words, severity of stuttering would be less while speaking to individuals who may know about the problem and the severity of stuttering is assumed to be more while speaking to strangers who have no clue about the problem possessed by the person who stutters.

The variability of stuttering across the individuals and situations has been reported in a lot of self-report studies carried out in PWS. One such study was done by Klompass and Ross in 2004 (Klompass and Ross, 2004). A total of 14 clients in the age range of 20 to 59 years of age with a mean age of 28.9 years were enrolled for the study. The participants were asked to fill a self-report where the different life domains like social life; employment; speech therapy; family and marital life; and identity, beliefs and emotional issues were specified and the participants were

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asked to report the problems across these domains and the participants reported difficulty in establishing friendship. The participants felt that the overall speech experience was predominantly negative in nature. The family and marital life was however not affected much. The self-esteem and self-image were affected in these PWS. The PWS are assumed to show more problems in situations like migrating as they are prone to experience novel culture in case of migration.

Migration is part of the history of human civilization being linked to important global issues such as the modernization of societies, poverty and human rights (Audebert and Dorai, 2010; Koser, 2007). UNO defines an international migrant is defined by a person who stays outside their usual country of residence for at least a year, and migration is an increasing phenomenon. People may immigrate for various reasons including the positive economic implications. In the current scenario, it has to be noticed that the International migrants have increased by more than two-fold from 1970 to 2005, as per the reports of the United Nation in 2017.

Individuals who emigrate may experience various problems including communication problems, mental health problems. Mental health problems in immigrants coping up with new culture have been researched adequately (Garces et al., 2006; Fortuna et al., 2008). The term cultural clash is used to depict the problems seen in the immigrants and the extent of cultural clash is directly dependent on the similarity and the differences between the cultures of the native and countries to which they migrate. The process of moving to a new country is considered to be stressful and is considered to be one of the major events in one's life (Ballas and Dorling, 2007). This phenomenon is considered as universally stressful (Lazarus and Folkman, 1984).

According to these authors, the psychological stress is assumed to be taxing and would affect the well-being of the individual. The other pressures related to migration include the need to socially connect with a new set of people and to achieve economic benefit through employment (Muller and Koch, 2017). More specifically, it is reported that factors like communication problems missing family problems, homesickness, problems concerning self-image, loss of status, nostalgia and inferiority complex.

Migration would involve three major set of transition involving changes in the personal ties or the equations, reconstruction of social networks revolving around new set of people and the shift from one cultural system and socio economic system to another. The migration trajectory can be divided into three phases namely pre-migration, migration and post-migration resettlement.

The risk and exposure may be seen across is common to all three phases. The pre-migration period would cause disruption to the assignment of social roles and network. This phase would involve apprehension about the new culture and uncertainties. During migration phase, the immigrants can experience prolonged uncertainty about their citizenship status as well as situations. While the post immigration would involve adjustment, comparison across the cultures, this phase is predominantly characterized by adaption to the new culture.

Persons who immigrate may also experience communication problems and few studies have been done in investigating the communication problems experienced by the immigrants and one such study in 1981 (Bannert and Hyltenstam, 1981) and the study reports problems in the domains of both reception as well as expression. The commonly encountered problems encountered in reception-included difficulty in understanding the habitual rate of speech in teachers, understanding the sentences, which were relatively long. More problems were seen in the domain of expression in relation to reception.

PWS may exhibit more problems when they immigrate to foreign countries, this can attributed to reasons like meeting unfamiliar

people, getting exposed to a new culture and speaking in an unfamiliar second language. Difficulty while speaking in the unfamiliar second language would depend on the similarity and difference between the first (native language) and second language. Some of the studies documenting problems faced by PWS in a foreign country are detailed below

A study (Nang et al., 2018) on profiling the experience of PWS immigrants in Australia was reported in the recent years. This study claims to be the first study to elicit details from the PWS on their experience in an outside country. As per the findings of the study, immigration to a different country was a major matter of concern for the participants as factors like race; ethnicity and the language spoken would be distinct in these kinds of setups when compared to their native countries. The participants who took part in the study also reported that both immigration as well as stuttering can be equally stressful and would have an impact on the self-image of the person who stutters. The experience is assumed to be traumatic at times. The stress experienced from migration interacted and compounded the existing stress of stuttering overall the cumulative effect was larger in magnitude and imposed lot of challenges to the person who stutters. At the same time, it was reported that the natives of Australia were found to be encouraging and supporting.

The study was carried out in Saudi Arabia. The study aimed at exploring the experience of expatriates or immigrants who stutter. Saudi Arabia is considered to be one of the countries where more people migrate. People with various educational backgrounds and cultural backgrounds immigrate to the country. The current study aims to explore the experience of the immigrants who stutter. A questionnaire was exclusively designed to tap details about the experience of immigrants.

2. Materials and methods

The questionnaire designed for the study had two parts and the questionnaire used in the study was exclusively designed for the current study. The first section elicited details about the participant's age, gender, nationality, education etc. Details about the languages known to the participant were elicited. The participants were asked to specify the duration of immigration.

The second part of questionnaire was in the multiple-choice format or a closed format. Each question had 6 choices starting from no difficulty to extreme difficulty and the choice of not applicable also was specified as the sixth choice as some of the questions were not apt for few participants. The details of the coding were as follows, 0 indicated No difficulty, 1 indicated very Slight difficulty, 2 indicated mild difficulty, 3 indicated moderate difficulty and 4 indicated extreme difficulty and the sixth option, coded as 5 was not applicable as indicated above.

Arabic is the first language in Saudi Arabia. English is considered as the second language. Immigrants from the neighboring countries may speak Arabic while immigrants from most of the other countries speak English for the purpose of communication. The questionnaire presented the participants with communicative situations. Each question was about a communicative situation in L1 and L2. In other words, the participants were asked to provide details about handling the communicative situations in L1 and L2. Most of the participants were bilinguals for whom both the questions were applicable.

As indicated above, the participants were asked to profile about the difficulties they confront while handling different communicative situations they confront in their routine. The first communicative situation interrogated the participants regarding their difficulty in communicating with their boss in office. This question was followed by documenting details in communicating with their

colleagues. The former and latter tried to unveil the difficulty of the immigrants who stutter in the office environment. Based on the language spoken by the participants either or both the variants were applicable to the participants.

The next two questions elicited difficulty in communicating in canteen/hotel and bank as most of the workers are prone to go to these places amidst work hence the questions on communicating in canteen and bank were included. The other places which people usually go include the saloons/beauty parlors and malls hence the next two questions documented details about the difficulty, which the immigrant who stutter encounter in these two situations. The next questions elicited difficulty in communicating to courier person in L1 and L2.

The last two questions elicited details about the experience of PWS while receiving the phone calls. The two possibilities of receiving calls are from known and unknown numbers were explored in these two questions where the participants were asked if they experienced difficulty while receiving calls from known and unknown numbers.

The questionnaire was presented in Arabic/English Bilingual format, as most of the participants knew these languages. The participants were asked to read the questions carefully and were asked to clarify with the investigator (expert speech language pathologist) if they had any clarifications. However, it was observed that most of the participants were able to fill the questionnaire without any support.

Population: A total of 14 participants were included in the study. All the participants emigrated from different countries. Details regarding their Native language and second language were elicited from the participants. The first part of questionnaire elicited details regarding the educational level and occupation details from the participants. Participants who stayed in Saudi Arabia for duration greater than 1 year were enrolled for the study. The ethical approval for this study was sanctioned by the Research Ethics Committee, The Deanship of Scientific Research, King Khalid University, Abha, Saudi Arabia (ECM#2020-3211)-(HAPO-06-B-001).

A total of 14 questions were circulated to the participants. The odd and even questions (1st and 2nd, 3rd and 4th and so on) were reduplications of each other. In other words, the same questions were asked, but the participant had to provide details regarding the handling of the situation in L1 for the odd question and in L2 for even question. Some of the participants were monolinguals thus not all the questions were applicable for some participants. SSI-4 (Stuttering Severity Instruments, 4th Edition) was administered on the participants. The composite scores on SSI-4 including

the physical concomitants were used. The severity of stuttering was profiled by employing SSI-4. The demographic details of the participants are provided in Table 1.

Assessment of Stuttering Severity: The SSI-4, 4th Edition, quantifies duration, frequency, naturalness and secondary behaviors of disfluency in all ages. This tool (i.e. SSI-4) enables the assessment of behavioral severity levels in readers and non-readers. Classification of stuttering severity based on the total score and percentile ranks is as follows: none (total score, 10–17; percentile rank, 1–11), mild (total score, 18–24; percentile rank, 12–40), moderate (total score, 25–31; percentile rank, 41–77), severe (total score, 32–36; percentile rank, 78–95), and very severe (total score, 37–46; percentile rank, 96–99).

The participants were asked to fill the questionnaire presented in multiple-choice format. Each question had multiple choices. 0 indicated No difficulty, 1 indicated Slight difficulty, 2 indicated mild difficulty, 3 indicated moderate difficulty and 4 indicated extreme difficulty and the sixth option, coded as 5 was not applicable as indicated above. For some monolingual participants, questions tapping details in L2 were not applicable.

3. Results

A total of 14 immigrants aged (23–34) years old of different nationalities participated in this study, most of them are males (males $n = 11$ vs females $n = 3$) as shown in Table 1. They were from different countries including Oman, India, Pakistan, Jordan, Morocco, Egypt, Philippines, Yemen and one of the participants was from the United States of America. The participants had emigrated from different countries to the Saudi Arabia. Their duration of stay ranged from 2 to 8 years (Table 1). Based on the severity of the stuttering measured by SSI-4, the participants classified into; mild ($n = 1$), moderate ($n = 5$); severe (6), and two participants had very severe stuttering as shown in Fig. 1A.

Frequency of first (L1) and second language (L2) among the participants were evaluated (Fig. 1B). The data showed that most of the participants knew Arabic ($n = 9$; 64.3%) followed by least percentages of other nationalities as shown in figure (1B). Among those who knew Arabic, 8 participants had Arabic as their mother tongue language (first language; L1) whereas only one participant uses Arabic as the second language (L2) for communication skills (Fig. 1B). In addition, educational levels among immigrants were evaluated. The results showed that most of the immigrants are post graduated (PG, $n = 3$), followed by little number of graduated (G; $n = 3$), and under graduated (UG, $n = 3$) respectively (Fig. 1C).

Table 1
Characteristics of the participants.

SI No	Age	Gender	Nationality	Residence period in years at KSA
1	26	M	Egyptian	2
2	31	M	Muscat	8
3	28	M	Syrian	4
4	26	Fe	Lebanese	6
5	31	M	American	5
6	24	M	Pakistan	7
7	29	Fe	Indian	2
8	23	M	Yemen	4
9	25	Fe	Egyptian	4
10	34	M	Indian	8
11	30	M	Philippines	5
12	31	M	Oman	6
13	27	M	Jordanian	6
14	27	M	Moroccan	2

M-Males F-Females.

A total of 14 immigrants aged (23–34) years old of different nationalities participated in this study, most of them are Males (Males $n=12$ vs Females=2). They were from different countries including Oman, India, Pakistan, Jordan, Morocco, Egypt, Philippines, Yemen and one of the participants was from the United States of America.

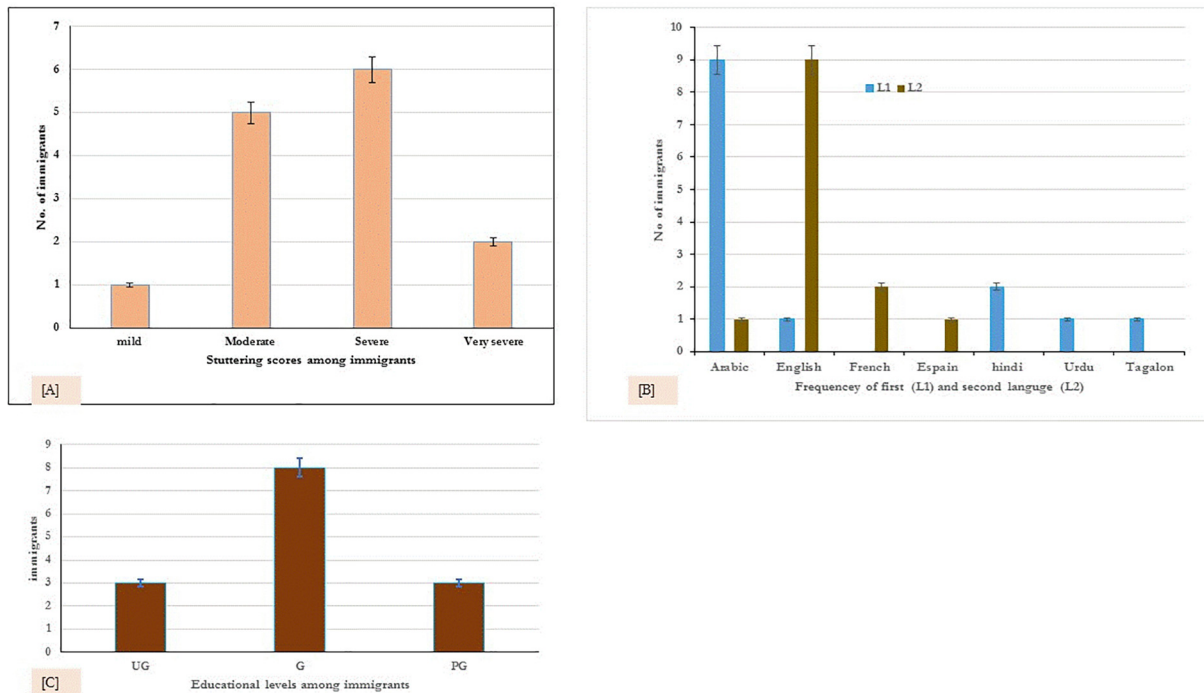


Fig. 1. General characteristics and diagnosis of the participated immigrants. (A) Stuttering scores among immigrants. Considering the severity of stuttering, the participants classified into; mild (n = 1), moderate (n = 5); severe (6), and 2 participants had very severe stuttering. The duration of migration ranged from 2 to 8 years. (B) Frequency of first (L1) and second language (L2) among the participants. The participants were from different countries including Oman, India, Pakistan, Jordan, Morocco, Egypt, Philippines, Yemen and one of the participants was from the United States of America. 9 of the 14 participants knew Arabic. Of the 9 participants who knew Arabic, 8 participants had Arabic as their L1 and it was the second language for one of the participants. (C) Educational levels among immigrants. The results showed that most of the immigrants are post graduated (PG, n = 3), followed by little number of graduated (G; n = 3), and under graduated (UG, n = 3) respectively.

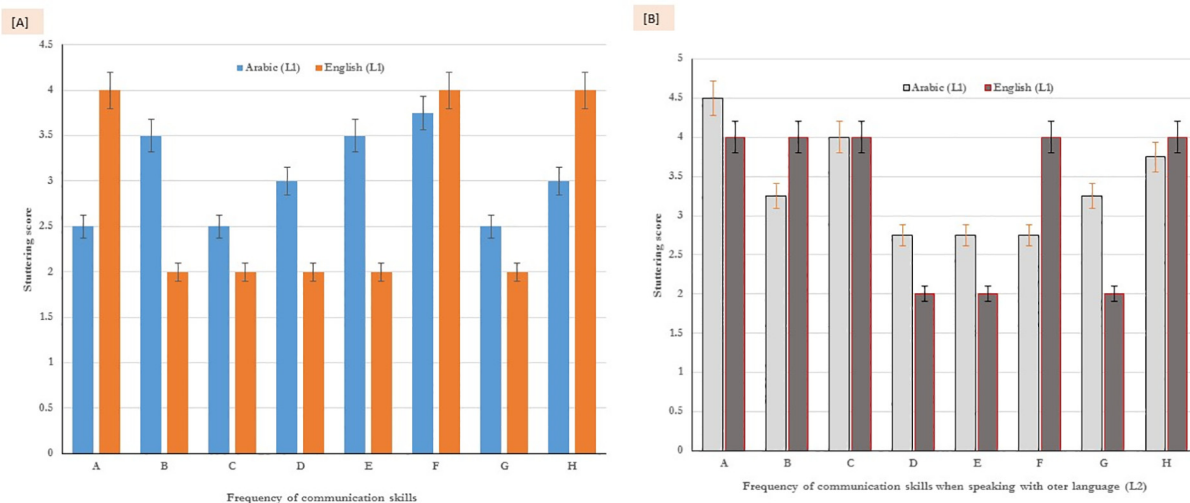


Fig. 2. Frequency of communication skills among immigrants who are moderate stuttering and their mother tongue is Arabic or English. (A) Daily life difficulties in communication skills among immigrants who are moderate stuttering when they are speaking with their mother language either Arabic or English. (B) Difficulties in communication skills among immigrants who are moderate stuttering when trying to use other language (English, Spanish, or French) as a tool to communicate or speaking during their daily life. A: speaking to boss; B: speaking to colleagues; C: in hotel or canteen; D: in bank; E: in saloon/beauty parlor; F: in mall/shop; G: to courier person; H: attending strange phone calls. The difficulties in communication skills scored as follows; 0: No difficulty, 1: Very Slight difficulty, 2: Mild difficulty, 3: Moderate difficulty, 4: Extreme difficulty and 5: applicable.

Frequency of communication skills among immigrants and its correlations with stuttering scores was evaluated in moderate (Fig. 2) and sever participants (Fig. 3). In immigrants with moderate stuttering, there were daily life difficulties in communication skills when the participants decide to speak with their mother language either Arabic or English. They showed a strong suffer when they speak to boss in work; speak to colleagues, or other daily life

activities as shown in Fig. 2A. In addition, difficulties in communication skills among immigrants who are moderate stuttering were achieved when they are trying to use other language (English, Spanish, or French) as a tool to communicate or speaking during their daily life (Fig. 2B).

Similarly, difficulties in the communication skills such as speaking to boss, colleagues, deals in hotel or canteen or in the bank; or

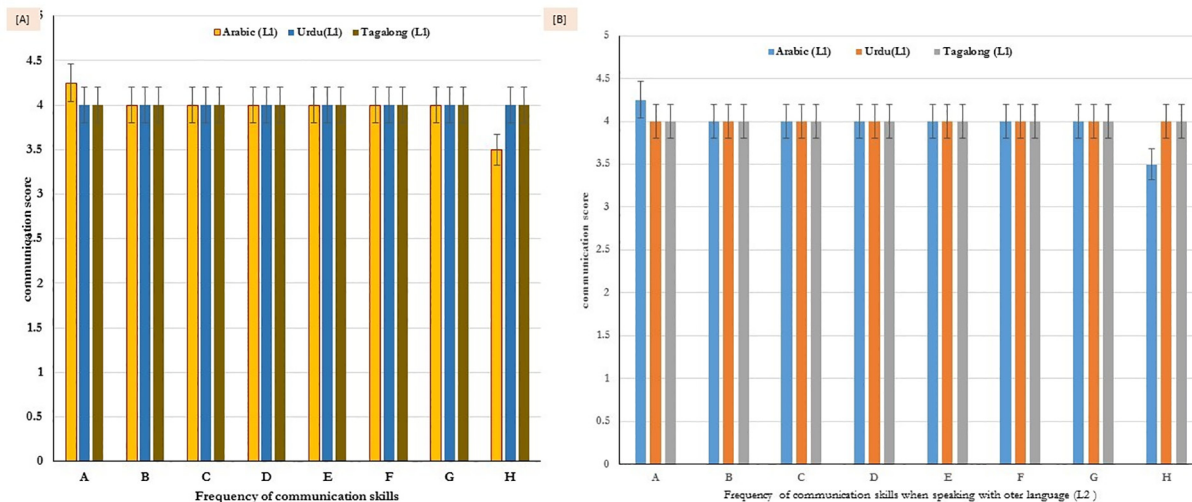


Fig. 3. Frequency of communication skills among immigrants who are severe stuttering and their mother tongue is Arabic or English. (A) Daily life difficulties in communication skills among immigrants who are moderate stuttering when they are speaking with their mother language either Arabic or English. (B) Difficulties in communication skills among immigrants who are moderate stuttering when trying to use other language (English) as a tool to communicate or speaking during their daily life. A: speaking to boss; B: speaking to colleagues; C: in hotel or canteen; D: in bank; E: in saloon/beauty parlor; F: in mall/shop; G: to courier person; H: attending strange phone calls. The difficulties in communication skills scored as follows; 0: No difficulty, 1: Very Slight difficulty, 2: Mild difficulty, 3: Moderate difficulty and 4: Extreme difficulty and 5: applicable.

other sorts of daily life activities were reported among immigrants with severe stuttering (Fig. 3). The participants showed severe communication difficulties when they are trying to speak or attending strange phone calls either with mother tongue (L1) or using other language (L2) such as English, as a tool to communicate or speaking during as shown in Fig. 3A & B.

The results showed that immigrants who are severe stuttering showed more complications in contact with social universe during the activities of their daily life more than those with moderate stuttering as shown in Fig. 4.

4. Discussion

The literature has shown that migration is part of the history of human civilization which might related to several social issues particularly the modernization of societies, poverty and human

rights (Garces et al., 2006; Fortuna et al., 2008). Therefore, migration can be a highly relevant life experience for many individuals and their families globally, especially those who stutter and seek the speech therapy services. In addition, migration is assumed to amplify the perception of feeling abnormal and result in difficulties with establishing a stable self-identity and a sense and greatly effects on communication skills of immigrants who stutter (Nang et al., 2018). PWS may turn more anxious in a new country as they have to handle a new set of people and the speak in an unfamiliar language (Nang et al., 2018). Our study aimed to investigate the experience of immigrants who stutter and stayed in Saudi Arabia for more than two years.

A total of 14 immigrants of different nationalities were recruited in this study. These participants emigrated from surrounding countries including Oman, India, Pakistan, Jordan, Morocco, Egypt, Philippines, Yemen and one of the participants was

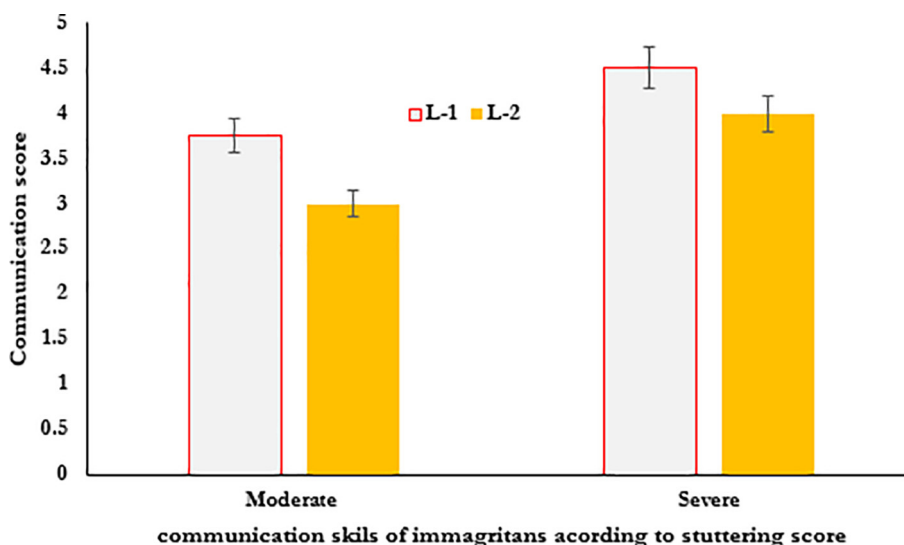


Fig. 4. Communication skills of immigrants according to stuttering score. Immigrants who are severe stuttering showed more complications in contact with social universe during the activities of their daily life. (p = 0.001, moderate vs severe).

from the United States of America. The participants had different cultural and linguistic backgrounds. Their duration of stay in Saudi Arabia ranged from 2 to 8 years. Based on the severity of the stuttering measured by SSI-4, the participants of the current study classified into; mild ($n = 1$), moderate ($n = 5$); severe (6), and two participants had very severe stuttering. Most of the participants were males ($n = 11$) and only 3 participants were females. It has to be noticed that the participants were young.

A questionnaire tapping details about the various communicative situations were included in the questionnaire. The questionnaire had a total of 14 questions extracting difficulties in handling different communicative situations by using L1 and L2. The questions were presented in multiple choice formats, where the participants had to tick one of the six choices to indicate the communicative difficulty.

Analysis was carried considering the severity of stuttering. The participants with severe stuttering exhibited more problems followed by participants with moderate stuttering, participants with very severe stuttering and mild stuttering. Participants with very severe stuttering were 2 in number while there was only 1 participant with mild stuttering. Thus it can be inferred that the severity of stuttering influenced magnitude of the problem faced by the immigrants. It was also observed that both immigrants who used mother tongue (L1) or foreign language (L2) such as English, Spanish, or French for communication experienced equal deficits in communicating or speaking as a part of their routine. Thus language used for communication may not have been a major factor in accounting to the difficulties faced in transacting verbally.

The results also showed that immigrants who are severe stuttering showed more complications in contact with social universe during the activities of their daily life more than those with moderate stuttering did. The data was in consonance with the study carried out in Australia (Nang et al., 2018); which showed that stuttering and other personal factors, such as spoken languages and accents, had a negative impact on communication skills. Immigration and stuttering cumulatively can cause amplification in the sensitivity of feeling abnormal and resulted in difficulties with establishing a stable self-identity and a sense of belonging in the new context.

In summary, the magnitude of difficulty in confronting different communicative difficulties was directly dependent on the severity of stuttering. Participants with severe stuttering experienced moderate to severe difficulty while participants with moderate stuttering experienced slight to moderate difficulty.

Immigration is stressful as discussed in the above mentioned studies. The problem would worsen if the immigrants have stuttering. The environment in the foreign country has to be made friendlier to evoke comfort and the fluency training should be available in the native language of the participant. The therapist should boost the confidence in PWS in confronting communication situation. In addition to this knowing the local language also would enhance confidence in PWS.

5. Availability of data and materials

All data that were generated or analyzed during this study are presented in the manuscript. Please contact the corresponding author for access to data presented in this study.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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