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Effects of the COVID-19 Pandemic Outbreak on the Performance of Sign Language Interpreters

Abstract

In general, stress affects the efficiency of workers' performance. With the coronavirus disease 2019 pandemic outbreak, sign language interpreters experience increased stress due to various factors. This study aims to determine the stressors faced by sign language interpreters during the pandemic. To achieve this goal, we prepared a questionnaire consisting of 15 paragraphs covering psychological, health, cognitive, linguistic and environmental aspects. Then, we surveyed 57 sign language interpreters in the Arab region. In the analysis, we calculated the average performance levels in addition to the differences between participants' average scores. We also divided the stress levels into three categories: simple, moderate and severe. Results indicated that the stress was medium on average and no statistically significant differences in the performance average in accordance with the study variables (gender, experience and workplace).

Keywords: COVID-19, Stresses, Sign Language Interpreters.

Introduction

Coronavirus disease 2019 (COVID-19) is a contagious viral disease detected in December 2019 in Wuhan City in China. The first diagnosis showed that the symptoms of the virus include high fever, coughing, dry and sore throat, shortness of breath, congestion, runny nose and diarrhoea. Not long after, the World Health Organization (WHO) declared this disease as a pandemic on March 11, 2020 (WHO, 2020). A pandemic refers to a disease that spreads widely and globally (Morens, Folkers and Fauci, 2009). Pandemic is an advanced stage of the term epidemic. This pandemic disease has spread in the Arab region like in the rest of the world, with variations in the outbreak level from one Arab country to another. The COVID-19 virus greatly affects the organs of the human body, and the pandemic situation poses risks to public health, society and the economies of numerous countries. Many companies in the business sector suspended their work and production, forcing

them to lay off large numbers of employees. Other workers, especially those with medical professions, experienced increased pressure due to the nature of their job. They have been working for longer hours and are in close contact with infected people, which increase their chances of being infected, putting their lives at risk. Accordingly, workers must take care of themselves and their families, especially in psychological aspects (Hamouche, 2020).

Working amidst the COVID-19 pandemic outbreak, whether from the workplace or home, is a source of stress, often causing confusion and tension that may result in a psychological burn (Bagherian-Sararoudi, Alipour and Mirahmadi, 2020). Several studies have indicated that the spread of COVID-19 has caused numerous psychological problems due to the stress resulting from the situation (Hamouche, 2020).

Amongst various workers affected by the pandemic, sign language interpreters are subject to unusual additional stress. The main reasons

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behind this increased stress are as follows: the high demand for services of sign language interpreters to explain the disease, including its nature, methods of prevention and the evolution of its spread globally and locally; the need for interpreting the local conferences held by countries to report on the development of the disease; and the new instructions issued by governments on work suspension, lockdown and the economic and social measures that people must adhere to stop the spread of the disease or avoid the penalties stipulated by some regulations.

Problem of the Study

1. What are the main stresses faced by sign language interpreters during the COVID-19 pandemic outbreak?
2. Are the stresses faced by sign language interpreters during the COVID-19 pandemic outbreak statistically differ at the significance level of $\alpha = 0.05$ in terms of gender, experience and place of interpretation?

Justifications of the Study

Most workers, including sign language interpreters, are suffering from increased pressure from their professions during the COVID-19 pandemic outbreak. One of the main stressors is working for additional hours, which are accompanied by psychological stress and family problems resulting from their separation from their families for longer periods than usual. Moreover, working in different places and environments poses the risk of becoming infected with the disease. To sum up, sign language interpreters are working for long hours in various places to communicate with deaf people and deliver information to them during the pandemic.

Significance of the Study

Identifying the stresses faced by sign language interpreters during stressful conditions, for example, the COVID-19 pandemic outbreak, may contribute to the development of training programmes that can help workers in such circumstances.

Terms of the Study

This study defines the introduced procedural terms as follows:

Stress: The degree reported by the participants upon answering the tool of the study. It represents the level of stress they experienced during the COVID-19 pandemic outbreak.

Sign language: A linguistic system relying on manual symbols to convey information to others (especially deaf individuals) and express concepts and ideas (Schmitt and Leigh, 2014).

Sign language interpreters: People who facilitate the transfer of information, thoughts, and feelings to and from deaf people. In this study, they answered the proposed research tool as the participants.

Pandemic: A pandemic is a disease that spreads widely and globally (Emery *et al.*, 2021). This study focuses on the COVID-19 virus, which was declared a pandemic by the WHO on 11 March 2020.

Concept and Forms of Stress

A stressful situation occurs when the work requirements are not adequate to a worker's abilities, tools and needs. It is a negative experience that affects the individual's ability to make a proper decision (Etchin *et al.*, 2020). This experience negatively affects an individual's effectiveness; for example, it can weaken his physical (DeLongis, Folkman and Lazarus, 1988) and mental capabilities (Leka, S., Griffiths, A. & Cox, 2003). Stress occurs due to the disparity between what work requires and the available resources that enable an individual to carry out his/her duties (Kurz, 2003). Stress negatively affects an individual and the people around him/her and the relationships between them (Halford *et al.*, 1992). The stressful situation may be permanent or temporary (Buck and Neff, 2012).

Stress is manifested in workers in the forms of anxiety, lack of motivation, impatience, and frustration (Norful *et al.*, 2021). An individual may express his/her stress through lack of social activity, loss of appetite, sleeplessness, tension, anger and frequent mistakes (Goldstein and Kopin, 2007). Studies have indicated that constant exposure to stress results in poor production and a psychological disorder, such as depression, loss of self-esteem and anxiety (Samantary and Hariharan, 2018). Individual failure and poor professional performance can be easily predicted when exposed to stress. In the case of the COVID-19 pandemic outbreak, the fear amongst workers may be due to several reasons, including being infected by the disease, loss of job, isolation and quarantine, death of close people and economic conditions (Fisher *et al.*, 2020).

Sign Language Interpretation

Sign language interpretation is a stressful process because it requires effort in listening and understanding the language of the speaker (the source language) and translating it with the choice

of the correct sign vocabulary (the targeted language) (Lee, Chong and Chung, 2020).

Accordingly, the pressures experienced by sign language interpreters may come from the following sources:

1. Cognitive sources related to an interpreter's ability to pay attention to the speaker, maintain focus, understand and perceive what he/she is saying and convert it into sign language (Gumul, 2019).
2. Social sources resulted from instant sign language interpretation on television. This stressful and exhausting situation exposes interpreters to pressures associated with the expectations of official speakers and broadcasters and the presence of millions of viewers who are following their translation (Kurz, 2003).
3. Psychological resources related to the lack of appreciation of the services provided by sign language interpreters to society in general and deaf and their families in particular, which negatively affects their self-esteem. Prior research showed an inverse relationship between professional pressure and self-esteem (Laub, 1999) and argued that sign language interpreters might suffer from isolation and withdrawal behaviour (Macdonald, 2015).
4. Physical sources where previous studies indicated that sign language interpreters suffer from joint muscle pain, back pain, neck pain, headaches and high blood pressure (Freeman and Rogers, 2010).
5. Professional sources resulted from the lack of experience, qualification and preparation. The less experienced and qualified a sign language interpreter, the more pressure he/she will endure. Such pressure also includes the increase in professional burdens, the lack of incentives, and the absence of professional development (Godfrey, 2011).
6. Linguistic sources resulted from the speakers' and interpreters' conditions and characteristics: the speed and style of speech; density of content; the use of uncommon names (people, places and tools) and specialised scientific topics that interpreters may not be familiar with; speaker's speech problems; the use of local accents, vocabulary in a foreign language, many numbers that are difficult to follow and uncommon vocabulary; the presence of grammatical errors that may be expressed by the subject and object (Setton, 2001).
7. Environmental sources, such as temperature, humidity and ventilation (Moser-Mercer, 1996).
8. Objective sources, such as restrictions on time devoted to interpretation, diversity of topics and changes in the speaker's pace and emotions (Kurz, 2003).
9. Low levels of academic achievement negatively affect the deaf person's understanding of some specialised scientific subjects (Mahmoud, 2009; Behrawi, 2019).

Review of Related Studies

Hamdouche (2020) reviewed the existing literature on the effects of the COVID-19 outbreak on employees' mental health. They found that the existing literature indicated that the pandemic negatively affects the mental health of individuals. The main stressors were pressures on the perception of safety, threat, risk of infection, quarantine, stigma, social elimination, financial loss and job insecurity (Hamouche, 2020).

Al-Turki (2017) conducted a descriptive study to identify the difficulties and obstacles faced by sign language interpreters from their perspectives. A total of 19 sign language interpreters participated in the above study by answering questionnaires. The results indicated that the main difficulties faced by sign language interpreters were isolation, occupational difficulties, psychological, physical, and health difficulties and financial distress (Freeman and Rogers, 2010).

Shnaikat (2014) evaluated the deaf people assessment of the performance level of sign language interpreters in Jordanian public and private universities and connected it with gender and qualification. A total of 100 students participated in the above study, which covered the cognitive (13 paragraphs), personal (15 paragraphs) and professional dimensions (13 paragraphs). The results indicated a high overall evaluation score for sign language interpreters and no difference in the deaf people's assessment of interpreters' performance levels in terms of gender variability (Shanikat, 2014).

Donner (2012) investigated the customary, physical and psychological pressures faced by sign language interpreters. A total of 16 interpreters participated in the above study. The results revealed that stress was connected to the period when interpreters gain their interpretation experience. In particular, 'the earlier the interpreter started his/her career, the less pressure he/she will endure due to his/her accumulated experience and professional compatibility'. The physical pressures increased proportionally with the increase of the interpreters' age (Stricevic *et al.*, 2012).

Qin et al. (2008) determined the effect of the pressures faced by sign language interpreters on the effectiveness of translation. They indicated an increase in physical pain from different body parts, such as the wrist and lower back (Qin *et al.*, 2008).

Methodology of the Study

In this study, we conducted a descriptive approach. We distributed our questionnaire to sign language interpreters who agreed to participate in the survey through social media apps (WhatsApp, Facebook, Twitter and email). We collected and analysed the data using the SPSS statistical package, wherein we used the average performance on the paragraph and the overall score on the questionnaire. Finally, we conducted t-test and ANOVA analysis to determine the significance of the difference between the averages using our research variables.

Tool of the Study

We designed a questionnaire consisting of 15 paragraphs to measure the pressures faced by sign language interpreters during the pandemic.

We based the questionnaire on our review of previous literature, including the study of Hamdouche (2020), WHO reports (2020), ILO (2020) and the study of Eraso and Garcés (2020). These references determined different pressures that workers may face under the pandemic, whilst the studies of Toit (2017) and Al-Turki (2017) revealed some of the pressures faced by sign language interpreters. The participants answered these paragraphs by gauging the provided sources of pressure that applies to their condition. The questionnaire employed a five-point Likert scale (I strongly agree = 4; I agree = 3; Neutral = 2; I disagree = 1; I strongly disagree = 0). We obtained the indications of honesty and consistency for the questionnaire. Specifically, we measured the validity of the internal consistency by calculating the correlation coefficient between performance on the paragraph and performance on the overall score. The results indicated that all correlation coefficients were statistically significant. We also verified the consistency using Cronbach's alpha coefficient, which was 0.767, as shown in Table 1.

Table 1.

Performance Correlation Coefficient of the Paragraph on the Total Score

Paragraph	Cronbach's reliability coefficient	Paragraph	Cronbach's reliability coefficient	Paragraph	Cronbach's reliability coefficient
I suffer from stress whilst interpreting in the presence of media due to my lack of experience and training.	0.478**	I suffer from stress during instant interpretation due to the lack of proper placement for the interpreter.	0.816**	I suffer from stress during interpreting because I have to be in contact with people amidst the pandemic, which increases my chances of being infected by the virus.	0.673**
I suffer from stress during instant interpretation due to new and unfamiliar terminologies.	0.665**	I suffer from stress during instant interpretation due to the absence of laws that protect interpreters against using their interpretation clips for sarcasm and irony.	0.760**	I suffer from stress due to the need for a constant touch of my nose, eyes and mouth during interpretation, making me vulnerable to the virus.	0.748**
I suffer from stress during instant interpretation due to the lack of prior coordination with the official speakers.	0.801**	I suffer from stress during instant interpretation due to the lack of feedback from the deaf people about the interpretation.	0.873**	I suffer from stress during instant interpretation due to the increase in working hours, which in turn reduces my time to answer my family's needs.	0.695**
I suffer from stress during instant interpretation because the official speakers talk too fast.	0.780**	I suffer from stress during interpretation because of exhaustion and tiredness due to continuous work.	0.733**	I suffer from stress due to the lack of scientific knowledge I have related to the subject matter.	0.736**
I suffer from stress during instant interpretation because official speakers ignore the time needed for sign interpretation.	0.872**	I suffer from stress because of the increased demand for interpretation due to the constant update of the information.	0.735**	I suffer from stress because of the lack of appreciation at work compared with other professions during this crisis.	0.666**

**Statistically significant at the level of 0.01.

Participants in the Study

A total of 57 sign language interpreters participated in this study. They were distributed in accordance with the study variables (gender:

male and female; experience: less than 5 years, 5–10 years and more than 10 years; place of translation: education, health and media; government services: police, courts and passports), as shown in Table 2.

Table 2.*Distribution of the Participants in the Study following the Study Variables*

Gender			Occupational Sector			Total
			Education	Media	Services	
Male	Experience	Less than 5 years	3	0	1	4
		5–10 years	2	0	3	5
		More than 10 years	18	5	18	41
	Total		23	5	22	55
Female	Experience	Less than 5 years	2	0	1	3
		5–10 years	4	0	0	4
		Total	6	0	1	7

Study Results

First, we aimed to answer the first research question: what is the source of the pressures faced by sign language interpreters during the

COVID-19 pandemic. Accordingly, we determined the averages of the participants' answers, which the questionnaire has calculated, as shown in Table 3.

Table 3.*Averages of Performance and Standard Deviation in terms of Gender (N = 57)*

No.	Paragraph	Minimum	Maximum	Average	Standard Deviation	Stress Category
1	I suffer from stress whilst interpreting in the presence of media due to my lack of experience and training.	0.00	4.00	1.0351	1.25307	Simple
2	I suffer from stress during instant interpretation due to new and unfamiliar terminologies.	0.00	4.00	1.4912	1.25307	Moderate
3	I suffer from stress during instant interpretation due to the lack of prior coordination with the official speakers.	0.00	4.00	1.7018	1.38828	Moderate
4	I suffer from stress during instant interpretation because the official speakers talk too fast.	0.00	4.00	2.0000	1.38873	Moderate
5	I suffer from stress during instant interpretation because the official speakers ignore the time needed for sign interpretation.	0.00	4.00	2.0526	1.35516	Moderate
6	I suffer from stress during instant interpretation due to the lack of proper placement for the interpreter.	0.00	4.00	2.3333	1.34075	Moderate
7	I suffer from stress during instant interpretation due to the absence of laws that protect interpreters against using their interpretation clips for sarcasm and irony.	0.00	4.00	2.4035	1.34774	Moderate
8	I suffer from stress during instant interpretation due to a lack of feedback from deaf people about the interpretation.	0.00	4.00	1.9474	1.31504	Moderate
9	I suffer from stress during interpretation because of exhaustion and tiredness due to continuous work.	0.00	4.00	2.3158	1.37786	Moderate
10	I suffer from stress because of the increased demand for interpretation due to the constant update of the information.	0.00	4.00	2.1754	1.39031	Moderate
11	I suffer from stress during interpreting because I have to be in contact with people amidst the pandemic, which increases my chances of being infected by the virus.	0.00	4.00	2.5263	1.25506	Moderate
12	I suffer from stress due to the need for a constant touch of my nose, eyes and mouth during interpretation, making me vulnerable to the virus.	0.00	4.00	2.36	1.267	Moderate
13	I suffer from stress during instant interpretation due to the increase in working hours, which in turn reduces my ability to answer my family's needs.	0.00	4.00	2.2456	1.27168	Moderate
14	I suffer from stress due to the lack of scientific knowledge I have related to the subject matter.	0.00	4.00	1.9649	1.22423	Moderate
15	I suffer from stress because of the lack of appreciation at work compared with other professions this crisis.	0.00	4.00	2.6491	1.28857	Severe

We classified the paragraphs as follows: the paragraphs with averages of 0–1.30 represent weak stress; paragraphs with an average of 1.31–2.60 represent moderate stress; paragraphs with averages of 2.61–4 represent severe stress. The results of most paragraphs indicated that sign

language interpreters were suffering from moderate stress at work during the COVID-19 pandemic outbreak. The only exception was the answer to the first and last paragraphs, which indicated the stress resulting from lack of experience and training and the lack of

appreciation for their work compared with other professions during the crisis.

Second, we aimed to answer the second research question: are the pressures faced by sign language interpreters during the COVID-19 pandemic outbreak statistically differ at the significance level of $\alpha = 0.05$ on the basis of the

study variables (gender, experience and place of translation)?

To determine whether performance varies in terms of gender, we calculated the average overall performance in the questionnaire using the gender variable, as listed in Table 4.

Table 4.

The Average Overall Performance in terms of Gender

	Gender	No. of Participants	Average	Standard Deviation	Average Standard Error
Overall score	Male	50	30.7400	14.59355	2.06384
	Female	7	33.8571	15.27993	5.77527

The above results indicated an apparent difference in the average overall performance in the questionnaire. Accordingly, to ensure the difference was statistically significant, we

performed a t-test for the difference between the averages following the gender variable, as shown in Table 5.

Table 5.

T-Test Results of the Differences between the Averages

Averages Variation	Standard Error Variation	Freedom Level	(T) Value	Significance Level
-3.11714	5.92016	55	-0.527	0.601

The value of $t = -0.527$ was significant at the level of 0.601, indicating that the apparent difference was not statistically significant in terms of gender. To determine whether the averages

vary in terms of experience and workplace, we performed a single-phase ANOVA on the difference between the averages following the study variables, as listed in Table 6.

Table 6.

Single-Phase ANOVA

Variable	Source of Variance	Sum of Squares	Average of Squares	Freedom Level	F	Significance Level
Experience	Between Groups	16.353	0.481	34	0.931	0.584
	Within Groups	11.367	0.517	22		
	Total	27.719		56		
Place of work	Between Groups	31.068	0.914	34	0.990	0.521
	Within Groups	20.300	0.923	22		
	Total	51.368		56		

The above results indicated that the value of F for the performance averages in terms of experience was 0.931 at the level of significance of 0.584, which was not statistically significant. Similarly, in terms of the workplace, the value of F = 0.990 at the significance level of 0.521 was not statistically significant in the pressures faced by sign language interpreters.

Discussion of the Results

Sign language interpreters suffer from professional pressures due to the nature and difficulty of their profession, as indicated by the studies of Kurz (2003), B.G. Lee (2009) and MacDonald (2015). The current study attributes these pressures to several reasons, such as the severe shortage of well-qualified interpreters, and some interpreters were not fully devoted to their profession. These situations expose sign language interpreters to additional pressure

resulting from working during the COVID-19 pandemic because of the increased demand for sign language translation services. Moreover, the pressures faced by sign language interpreters are sometimes similar to the pressures faced by other workers in different professions, as revealed in the existing literature, including Hamdouche (2020), the study of Eraso and Garcés (2020) (Belzunegui-Eraso and Erro-Garcés, 2020) and the reports of the WHO (2020) and ILO (2020) (Goldstein and Kopin, 2007; Hamouche, 2020; WHO, 2020).

We found that sign language interpreters were suffering from stress due to a lack of experience and job training in front of the media (Paragraph 1). This finding was consistent with the study of Toit (2017), who found that working in front of the media is stressful. Therefore, sign language interpreters should undergo intensive training, especially those required to work in such situations. Sign language interpreters were also suffering from pressure due to the use of new and unfamiliar terms (Paragraph 2). In particular, they might not be familiar with many scientific medical and other updated terms, such as COVID-19, general lockdown, quarantine and the various brands of vaccines (Paragraph 14). These results were consistent with previous studies (e.g. Setton, 2001), which indicated that linguistic terminology is one of the sources of stress for sign language interpreters (Setton, 2001). In addition, linguistic problems, such as speed of speech, are deemed by sign language interpreters as a source of their stress (Paragraph 4), consistent with the studies of Kurz (2003) and Setton (2001). The work environment also appeared as a stressor due to the lack of adequate placement (Paragraph 6). The lack of coordination with the spokesperson before the beginning of the translation (Paragraph 3), the failure to provide feedback to the interpreter about his/her performance (Paragraph 8) and the continuous update of information (Paragraph 10) were all stressors during live broadcast amongst sign language interpreters, consistent with the study of Moser-Mercer (2006) (Moser-Mercer, 1996). The psychological context that negatively affects self-concept and self-esteem was one of the main sources of stress indicated in the current study (Paragraph 15). This result was consistent with MacDonald (2015) and Bower (2013), who argued that professional stress results in low self-conception (Macdonald, 2015). Working for long periods more than usual was also a stressor (Paragraph 9), which leads to fatigue and physical pain, as indicated in the study of Al-Turki (2017). Finally, the fear of contracting the disease and transmitting the infection to family members and the fear of the lack of treatment and the effects of the disease were sources of stress amongst interpreters (Paragraphs 11, 12 and 13) given their profession, which requires them to deal with

patients. During translation, translators may also have to touch their noses, mouths, and eyes, where the virus can enter their bodies. These results were consistent with the study of Hamdouche (2020), who determined that fear of contracting the disease was a source of stress in work environments, and the report of the ILO (2020), which recommended social distancing in work environments to reduce risks of infection (Kurz, 2003; Macdonald, 2015; Hamouche, 2020).

Overall, the results indicated no statistically significant differences in the pressures faced by interpreters on the basis of the study variables (gender, experience and workplace). This finding did not support the study of Donner (2012), who showed a difference in health, psychological and cognitive pressures due to the experience variable. The current research attributes the difference to the reality that working in light of the COVID-19 pandemic outbreak was new for everyone, and interpreters were not qualified to deal with it.

Conclusion and Recommendations

Sign language interpretation was a necessary profession to facilitate the integration of individuals with hearing disabilities into society, meet their various needs and grant them access to information. In typical settings, translation in sign language is stressful due to a serious shortage of well-qualified interpreters and a lack of dedication to the profession (Toit, 2017). Whilst working in light of the COVID-19 pandemic outbreak, pressures are bound to rise, as revealed by the findings in this study. To alleviate these pressures and assist sign language interpreters in adapting to them, we recommend conducting training programmes. We also suggest establishing vocational training programmes aimed at preparing people to work under duress. Finally, in light of the pandemic situation, researchers should further explore the affective experiences of interpreters in dealing with these demands.

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