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Quality of life of sign language interpreters

Qualidade de vida do profissional intérprete de língua de sinais

Calidad de vida del professional intérprete del lenguaje de signos

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Abstract

Objective: This study aims to evaluate aspects related to Sign Language interpreter's quality of life and relates it with their professional activities. **Methods:** It is a quantitative cross-sectional study, and data were collected by application of a characterization questionnaire and by SF -36 of the WHO. Twenty-five interpreters participated with average age of 36.16 years. The Friedman ANOVA test was used. **Results:** The results demonstrate that between functional capacity, pain, general health, mental health and vitality there were significant differences, and that functional capacity is best assessed by the participants. **Conclusion:** It is noticed that for most participants the act of interpreting causes pain, psychological stress and changes in their general health, besides loss of vigor, strength, energy and disposal.

Keywords: Quality of life; Occupational health; Cumulative trauma disorders.

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Authors' contribution:
ACG – worked in the conception, design, analysis, data interpretation and final draft;
TRL- worked in the research, methodology, data analysis and interpretation, and final draft;
ASP – worked in the research, methodology, design, data analysis and interpretation, and final draft;
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Resumo

Objetivo: O objetivo deste trabalho foi avaliar aspectos associados à qualidade de vida de intérpretes de língua de sinais e buscar relações com sua atuação profissional. **Métodos:** Trata-se de estudo transversal quantitativo, cuja coleta de dados se deu por meio da aplicação de dois questionários, um de caracterização da atuação desses profissionais no ambiente de trabalho e pelo questionário SF-36 da OMS. Participaram 25 intérpretes com idade média de 36,16 anos. Foram calculados média e desvio-padrão para os escores dos questionários. Utilizou-se o teste ANOVA de Friedman. **Resultados:** Os resultados demonstram que nos domínios capacidade funcional, dor, estado geral de saúde, vitalidade e saúde mental existe diferença significativa, sendo que a capacidade funcional é mais bem avaliada pelos participantes. **Conclusão:** Percebe-se que para grande parte dos participantes o ato de interpretar causa dor, estresse psicológico e alterações no seu estado geral de saúde, além da perda de vigor, força, energia e disposição.

Palavras-chave: Qualidade de vida; Saúde do trabalhador; Transtornos traumáticos cumulativos.

Resumen

Objetivo: El objetivo de este trabajo fue evaluar los aspectos asociados con la calidad de vida de los intérpretes de lengua de signos y buscar relaciones con su actuación profesional. **Métodos:** Se trata de un estudio transversal cuantitativo en el que la recolección de datos fue a través de dos cuestionarios, uno de caracterización de la actuación de los profesionales en el ambiente de trabajo y otro por el SF-36 de la OMS. Participaron 25 intérpretes con un pormedio de edad de 36,16 años. Fueron calculados pormédio y desviación estándar para las puntuaciones de los cuestionarios. Se utilizó la prueba ANOVA de Friedman. **Resultados:** Los resultados muestran que en los domínios capacidad funcional, dolor, salud general, vitalidad y salud mental hay una diferencia significativa, y la capacidad funcional se evalúa mejor por los participantes. **Conclusión:** Se puede observar que para la mayoría de los participantes el acto de interpreter causa dolor, estrés psicológico y cambios en el estado general de salud, además de pérdida de vigor, fuerza, energía y disposición.

Palabras clave: Calidad de vida; Salud laboral; Trastornos traumáticos acumulativos.

Introduction

Currently, Brazilian Sign Language (Libras)[1] and deaf individuals have been gaining larger social space, mainly in school settings, due to access laws which warrant the deaf to study in regular schools as well as legitimize this sign language as the language of the Brazilian deaf community. After such laws, interpreters of the sign language have been inserted in the school context.

It is worth mentioning that the history of the regulation of sign language interpreters as a profession began by means of voluntary activities, and only in 2010, those professionals were recognized under Law 12.319/10[2]. That law, coming into effect nationwide, states in article 6 that the translator and interpreter carries some attributions, related to their profession, such as: to carry on the communication between deaf individuals and listeners; to interpret educational and cultural activities developed in educational institutions (elementary, middle, high schools, and higher education), in order to enable deaf students to access curricular contents; to work in selective entrance examinations for courses in educational institutions, among others.

It should be pointed out that law 12.319/10[2] undoubtedly brought several benefits to those professionals, such as: definition of their role, federal contests for this professional field, visibility in face of the process of accessibility to the Brazilian deaf, etc. However, it deems to clarify that the aforementioned law does not refer, in any of its articles, to those professionals' health and quality of life. It is necessary to clarify that workers' occupational health should be evidenced in Brazil, as health risks may put an early career end to workers.

According to the World Health Organization (WHO)[3], quality of life is understood as "the individuals' perception on their position in life in the context of the culture and system of values where they live in, and in relation to their expectations, standards and concerns". As for the quality of life of

interpreters of the sign language, it can be perceived that such professionals must be aware of their body in space in order to use it better and more profitably. That body awareness will enable interpreters to have a better quality of life while performing the translation of the oral language spoken by the hearing teacher into the sign language to deaf students, that is, to hear an oral listening language and translate it into a visual sign language.

According to the research[4], not only the interpreters of the sign language often suffer psychological constraints due to their extended work schedule, and the work itself of translating simultaneously from one language to another, but also they are exposed to several hazards, such as repetitive and steady movements of their upper limbs, neck, hands, forearms, etc. Such movements may cause pain and repetitive efforts, which affect those professionals' quality of life.

Thus, it is necessary to preserve sign language translators and interpreters' health and get to know the commonest pathological causes related to this profession, which generally vary from tendon, muscle and joint injuries, mainly in the upper limbs, shoulders and neck to poor posture, resulting in pain, fatigue and decline of the professional performance[4].

It is possible to verify in the workers' health legislation, several references to work-related musculoskeletal disorders (WMSD), former RSI (repetitive strain injury)[5]. The WMSDs have been pointed as public health problems in many industrialized countries. Such injuries are usually the result of combined strain of the anatomical structures of the musculoskeletal system with lack of time for their recovery. Strain may occur either for the overuse of certain muscle groups in repetitive movements, with or without demanding local efforts, or the permanence of certain body segments in certain positions for prolonged time, particularly when such positions demand effort or resistance of the musculoskeletal structures against gravity. The need of concentration and focus of workers in order to carry on their activities as well as the strain imposed by the work organization, are also factors which significantly contribute to RSIs.

The WMSDs can be triggered by several physical, organizational and psychosocial factors[5]. In the case of Libras translators and interpreters, physical factors related to WMSDs can be as follows: over repetitive movement; excessive muscle strength; prolonged-static or poor posture; insufficient physical fitness. As for the organizational factors, the repetitive nature of work; lack of working shifts or breaks; improper work settings; demand to keep the fast work pace in order to meet productivity goals and prolonged working hours can be WMSD causes. The psychosocial factors can be related to anxiety, depression and, ultimately, occupational stress. Such stress is perceived in a subjective way by each worker, though it is usually related to lack of autonomy, daily working pressures, perfectionism, excessive workload and pace of work, etc. Moreover, "there are cognitive demands which may have a role in the occurrence of RSI/WMSD, whether by the increase in muscle strain, or by a more generalized stress response" [6].

According to an American research study[7], the sign language translator and interpreter profession is one of the professions featuring the highest ergonomic hazards, mainly regarding the body upper and lower limbs, there is an increase in cognitive and mental levels, and higher risk to develop musculoskeletal disorders, such as tendonitis.

Corroborating those conclusions[8], it should be pointed out that preventive policies are scarce toward sign language translators and interpreters' health issues, as well as lack of investments in those professionals' qualification and education.

Considering such aspects, this study objectifies to assess the quality of life of sign language interpreters, who work in the educational field, by means of the SF-36 questionnaire, and a questionnaire which profiles those participants' professional performance.

Method

This is a cross-sectional quantitative study. Data collection was carried out by means of the application of two instruments: a questionnaire profiling the participants regarding their performance as sign language interpreters in the educational field, and the general World Health Organization SF-36 questionnaire[9].

For the interpreters' selection, it was opted to select those who work in the educational field in a Southern Brazilian city. The instrument application was held between February and May, 2016.

The sample comprised 25 interpreters, who answered the questionnaires individually, after being invited to participate in the research study,

and signed the Free Informed Consent Form, where it was explained that there would not be any cost, and the research would be performed by answering both questionnaires.

For data collection, the Medical Outcomes Short-Form Health Survey (SF-36) was used, which is an instrument that enables a general health assessment, originally created in the English language. It entails 36 questions, which take up eight domains: functional capacity, physical aspects, pain, general health status, vitality, social aspects, emotional aspects and mental health. This instrument, already translated and validated in the Portuguese language, is divided in two parts: the first one assesses health status, and the second one assesses the impact of the disease on patients' daily life. The 36 questions are structured in scales, with some scoring possibilities, and scored according to pre-established rules.

In addition, all participants answered a questionnaire on the general profile of the sample, including questions on: age, gender, schooling, working position, working hours as interpreters, if those are excessive working hours, if they feel body pains or headache while interpreting, classroom noise, and if they have work breaks.

Statistical analyses were held by means of descriptive methods (tables comprising frequency distribution, mean, minimum, maximum and standard deviation), and inference methods (Friedman's ANOVA, and the test of difference between proportions, significance level of 0.05). Statistica 13.1 software was used.

This study complied with the regulations on research with human beings, and was approved by the Ethics Board of UNESP - Universidade Estadual Paulista, Marília campus, School of Philosophy and Science, São Paulo State/Brazil, on 08/21/2013, under protocol number 0782/2013.

Results

Regarding the questionnaire answers which profile the sample, it was verified mean age of 36.16 years, standard deviation of 9.83 years (minimum age of 19 years and maximum age of 55 years).

As for participants' profile regarding gender, schooling and professional position, it is shown in Table 1. It was not observed, by means of the absolute and relative frequencies (%), and the test of differences between proportions, significant difference (p= 0.3961) between male and female proportions. Moreover, it was perceived that the proportion of interpreters with Higher Education is significantly higher in relation to the ones with High School education or in relation to the specialists (p= 0.0128). Most of them work as sign language interpreters, being this proportion significantly higher (p= 0.000) than for the other positions.

Table 1. Distribution of the sample according to gender, schooling and job position

Varible and category	Frequency	%
Gender		
Female	14	56%
Male	11	44%
Schooling		
High School	6	24%
Higher Education	14	56%
Specialist	5	20%
Job Position		
SLTI	21	84%
Teacher	2	8%
General services assistant	1	4%
Sales promoter	1	4%

Regarding the weekly working hours as a sign language interpreter, the mean is 38.95 hours, with the maximum working hours of 60 weekly hours.

As there are questions on pain in the SF-36 questionnaire, although not specifically about pains while interpreting, the participants were asked whether they feel pain while interpreting when they answered the sample profile questionnaire. A little less than half of the sample, that is, 44% of the participants answered affirmatively. All participants who reported that they had some sort of pain performing their job worked 40 weekly hours or more.

From the interpreters who answered affirmatively that they felt pain while performing their job, it was evidenced that 9% felt pain in their upper limbs, 9% in non-specified body parts, 36% in their upper body, and 46% in more than one body part, being that last proportion significantly higher than the ones who reported pain in their upper limbs and non-specified parts (p= 0.0034).

Another question refers to classroom noise: 68% of the participants answered that the classroom noise did not disturb their work, while 32% reported that the classroom noise disturbed and made their work harder, being the proportion of those who were not disturbed by the classroom noise significantly higher (p= 0.0109) in relation to the others.

Regarding headache while interpreting, 4% reported that they always had headache, 12% had mild headache, 16% hardly ever had headache, 20% sometimes had headache, and 48% never had headache while performing their job. The proportion of those who never had headache is proportionally higher than the other cases: always (p=0.0004), mild headache (p= 0.0055), hardly ever had headache (p= 0.0153), and sometimes (p= 0.0366).

In addition to questions on pain, in the sample profile questionnaire, there was a question regarding excessive working hours, and how often that occurred. It can be perceived that 28% of the participants rarely exceed the working hours, although 24% said that it sometimes occurred, and 12% stated that it always occurred. There were not significant differences in this question.

When they were asked whether they had a break in their job, 16% answered negatively, while 84% answered that affirmatively, being the proportion of those who had a work break significantly higher (p= 0.0000) than those who did not. In relation to the length of break time, 5% of the interviewees stated that they had a five-minute break, 10% had a ten-minute break, 15% stated that they had a fifteen-minute break, 20% had twenty minutes, and 15% had an hour-break. The differences between the break time length were not significant.

The results found with the application of the SF-36 questionnaire are shown in Table 2, being possible to evidence by means of Friedman's ANOVA, significance level of 0.05 (5%), the existence of significant differences (p= 0.0007) between the domains. The identification of differences shows that functional capacity significantly differs from the domains, as follows: pain (p= 0.0027), general health status (p= 0.0126), vitality (p= 0.0005), and mental health (p= 0.0053), featuring higher average than those domains. It was also evidenced the occurrence of significant difference among the domains vitality and the general health status (p= 0.0303), and the emotional aspect (0.0045), with the vitality domain featuring lower average than those two domains.

Table 2. Descriptive measures, obtained by the SF-36 questionnaire, of the 25 interpreters regarding the different domains, and result of the statistical test.

Domínio	N	Mean	Minimum	Maximum	Standard deviation
Functional capacity	25	85.00	55	100	14.86
Physical aspects	25	78.00	0	100	33.32
Pain	25	70.24	20	100	26.13
Physical health status	25	74.32	30	100	21.79
Vitality	25	65.60	25	95	20.17
Social aspects	25	78.00	25	100	21.23
Emotional aspects	25	70.67	0	100	38.87
Mental health	25	71.36	24	92	19.89

Discussion

It is worth clarifying the reader that the discussion will feature data cross-checking of both questionnaires.

This study shows that although there is not a significant difference between males and females in the sample, it can be perceived female prevalence. This fact was also confirmed in another recent research study[10], which evidences the prevalence of women in this profession, a trend which is present in all positions of the educational field. Moreover, it can be perceived in this sample, a significant difference between interpreters with Higher Education and those with other schooling levels. Those results were also pointed in other studies[11,12]; in spite of that, most of the interpreters do not have Higher education in this area.

In relation to the domains shown in Table 2: functional capacity, pain, general health status, energy and mental health, it can be noticed that there is a significant difference, with functional capacity as the best assessed domain by the participants. The results obtained from the answers of the SF-36 questionnaire show that the participants in this study perceive that the domains pain, psychological stress, changes in the general health status, loss of vitality, strength, energy and disposition had the worst scores.

Table 2 also shows that the vitality domain features lower average when related to the general health status and emotional aspect domains. That result seems to evidence that the greatest part of those professionals feels tired to perform their job, without the needed vitality and energy to carry it on. It deems to elucidate that such adverse conditions to general health make those subjects prone to irritation, pain and stress, which hinder their professional performance. From those data, it can be observed that health-promotion policies are essential in work settings, so that interpreters, as well as other professionals who work with them, can get aware, ponder and discuss reality-changing actions toward conditions and work organization in educational institutions, in order to change those settings into healthy environments, which consider the quality of life of those working there[13].

One of the factors which can be especially related to the pain, mental health and vitality domains is the weekly working hours of the participants who work as sign language interpreters. Their average working hours were 38.95 weekly working hours, with some participants working until 60 weekly hours, also disclosing that they extrapolate the weekly working hours for interpretation. It deems to clarify that such working hours are excessive for a professional exposed to a process of translation and interpretation in a second language. Those professionals interpret specific contents from specific subjects, which demand higher concentration level of attention and listening, which may lead them to physical and mental stress. It should be pointed out that although the majority in this sample had stated that they had work breaks, that does not justify such high workload.

Research[12] found, like in this current study, that many interpreters work over 31 weekly hours, in an exhausting job, mainly because many of them report to work in more than one institution, often interpreting quite distinct themes. Many interpreters refer to stress, muscle pain, and a lot of pressure, not only on the part of the institutions, but also on the part of the deaf students toward their job performance. It is worth observing that interpreting is not only a mechanical action, but it involves professionals' linguistic and cognitive issues. Thus, physical and mental stress may occur in those subjects[10].

That excessive workload may also lead those professionals to feel pain and physical stress, as pointed to almost half of the sample. Literature[7,10] explains that it is essential to prevent Libras translators and interpreters' health, and know the commonest pathological causes that may occur in this profession, which vary from tendon, muscle and joint injuries, mainly in the upper limbs, shoulders and neck to keeping poor posture, resulting in pain, fatigue and decline in the professional performance.

Brazilian studies[8,10,11] on those issues are scarce. Thus, it is still hard to identify the causes of occupational diseases affecting interpreters, and little is known about occupational -related complications and complaints that the sign language interpretation may cause. However, it is already known that lengthy interpreting work, without work breaks, leads to the risk of injuries, mainly in the upper limbs[7,14]. Brazilian research[10] found that 7% of the interpreters, participating in the study were diagnosed for Repetitive Strain Injury (RSI), and 9% were diagnosed for chronic muscle disorders caused by their job as interpreters.

International literature points that sign language interpreters feature an increase in the risk of musculoskeletal disorders[14,15,16]. Therefore, it is necessary to think about health promotion actions as well as the improvement of interpreters' quality of life, which consider body demands and its use conditions, favoring endurance, physical rest and improvement in the professionals' health.

In addition to the physical strain, the act of interpreting may also cause intellectual strain, as a research study shows[17], elucidating that translation between languages may cause that kind of strain. Moreover, the competition with the hearing noise inside the classroom makes hard the intellectual job of an interpreter, who needs a greater effort to listen to the teacher, with all the surrounding noise, and translates what he/she is saying into another language. The current study shows that 32% of the participants report that classroom noise disturbs their effort to listen to the teacher, and 36% of the participants mention that the intellectual interpreting job causes headache.

Therefore, it should be considered that interpreters not only carry on the linguistic transfer between two languages, but it is also necessary to take into account the cultural and situational aspects, so that interpreting from one language into another makes sense. In addition, the translation job and make contents accessible to students, demand specific knowledge of the students, the contents and the teachers, on the part of those professionals, which makes their profession very complex[11].

Thus, it is perceived that interpreters must often be updated on the approached themes by means of readings and studies, besides being skillful in each involved language, which does not always occur, thus resulting in deleterious outcomes for interpretation[12].

It is also necessary to point out that some Brazilian states, in their regulations, state that interpreters, who work in basic education, should have 20 to 40 working hours, and during these hours, they should provide pedagogical support to deaf students in all the subjects from the curriculum. However, how is that possible if they have to work an average of 38 hours in the classroom, or even longer, 60 hours a week? How can such professionals preserve their health and quality of life working without any breaks?

Aiming at proposals of health promotion in educational institutions where interpreters carry on their job with deaf individuals, it is necessary to think over actions which protect such professionals' performance, and take into account their health and quality of life.

Conclusion

The results of the current study show, by means of the SF-36 questionnaire, that the best scores are related to the domains of functional capacity, physical and social aspects. The lowest scores were pain, vitality, emotional aspects and mental health domains.

The results, by means of the sample profile questionnaire, evidence that almost half of the sample reports pain in more than one part of the body while interpreting. In addition, great part of the participants reported headache while performing their job, and noise disturbed them. It is also perceived that most sample subjects interpret in the classroom for almost 40 weekly hours, and many do not have any work breaks. Those results seem to demonstrate that those professionals may feature work-related disorders, especially in the upper limbs, associated with a set of repetitive movements and poor posture for all body structure. Moreover, the excess of daily interpretations, without rest breaks, favors the occurrence of repetitive strain injuries, as well as stress related to daily activities.

Therefore, it can be concluded that these professionals need to be aware of the work-related risk factors, avoiding the occurrence of WSMDs and work-related mental and physical stress. Thus, proposing referrals to preventive programs is deemed necessary in order for those professionals to work healthier, with quality of life, aiming at prevention from sick leaves or even work resignations due to repetitive work-related disorders.

For that, further studies with this population cohort, which take into account the risk of occupational disorders caused by that kind of job, are essential, as well as the quality of professional life of sign language interpreters.

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