

11 Wellbeing promoting practices for interpreters

Leonardo Brunale and Antonella Sannolla

Introduction

This chapter focuses on practices which promote interpreters' wellbeing, suggested by Interpreting Studies (IS) research and practice. IS research includes suggestions stemming from authors with different backgrounds, and practice includes suggestions by professional associations and individual practitioners. The chapter focuses on information disseminated in grey literature¹, while clinical studies will be discussed by Bonfiglioli et al. in this book. As most aspects of interpreters' wellbeing have been mentioned by more than one author, references in this chapter are not analytical, but aim to give the broadest possible overview. The practices presented and summarized here are mainly suggestions made by non-medical experts – they are not evidence-based prescriptions – and have been collected adopting a preventive and holistic approach to wellbeing. The content of this chapter is purely informative and should not be read as medical advice or self-treatment methods.

The content of the chapter has been structured to deal with specific aspects of wellbeing, with a clear distinction between the physical and psychological level, although the authors are aware that, more often than not, it is the interaction of the two levels that impacts interpreters' wellbeing.

The inspiration for this chapter comes from the master thesis of one of the authors (Brunale, 2022), who associated interpreters to athletes, and, in particular, defined them as “cognitive athletes” who should take care of their mental as well as physical health and lifestyle to maximize performance. This holistic approach can be applied by interpreters across modalities, modes, and settings, with the main goal being their wellbeing as conducive to better interpreting performance and career longevity.

Suggestions contained in this chapter are mainly drawn from non-academic sources (i.e. publications of professional associations and practitioners' blogs) because, just as there are amateur athletes who may benefit from best practices suggested by their professional counterparts on

the basis of experience, there are untrained, informally trained, or novice interpreters who may benefit from the knowledge of more experienced colleagues. During and in the aftermath of COVID-19, a considerable number of training initiatives and workshops on interpreters' health issues have been organized and offered by professional associations. It is to be hoped that this renewed interest in health issues will not be overshadowed by the growing concerns for the future of the profession in the era of artificial intelligence.

This chapter is an attempt to collect and summarize practical suggestions to promote interpreters' wellbeing based on both scientific and alternative approaches. The references given are to be solely understood as examples, as many authors have dealt with more than one issue. Readers interested in specific aspects of wellbeing are invited to consider this chapter as a starting point and refer to the mentioned sources for more exhaustive information.

Protecting interpreters' hearing

It is self-evident that, with the exception of communication through sign language, interpreters cannot perform their job unless they hear what they have to translate. This means that interpreters must be able to receive any auditory input, and it is therefore essential for them to have healthy, fully functioning hearing. Protecting hearing is therefore paramount, even more so for interpreters who spend most of their working time using headphones to perform simultaneous interpreting (SI) in a booth and/or distance interpreting (DI) via telephone, videoconferencing, or platforms for remote interpreting.

Conference interpreters and their professional associations have shown increased interest in this topic since the 1980s. In particular, the International Association of Conference Interpreters (French acronym AIIC) and its members have provided editorial content, organized seminars and promoted studies (Missirliu, 1982; Kurz, 1992; AIIC, 2022d; AIIC THC, 2019; 2022a; 2022b) on hearing-related topics throughout the years and continue to do so. The following indications are drawn mainly from these sources.

When working with hearing peripherals², it is recommended that interpreters use lightweight, semi-open headphones with an on-ear design that can reproduce the ISO-compliant frequency response of 125-15,000 Hz. Lighter weight provides more wearing comfort, especially for long interpreting sessions, while a semi-open and on-ear design allows interpreters to listen to the speaker's voice and their own at the same time more efficiently. "Semi-open" means that the earcups are partially perforated and let more external sound enter the ear, including the

interpreter's voice, which is therefore easier to monitor. "On-ear" means that the earcup rests on the external ear and does not cover it completely, resulting in less weight and insulation. It is recommended that interpreters keep headphone volume as low as possible, while maintaining incoming speech intelligibility. If they listen with only one ear (monaural listening), it may be easier to hear their own voice, but they are likely to keep the volume higher than it would be if they were listening with two ears (binaural listening). If monaural listening is preferred, some authors suggest changing the listening ear at regular intervals. If a considerable amount of time is spent working with headphones, it is advised to minimize headphone use and exposition to loud sounds outside of work. Prolonged exposure to sound levels above the critical threshold of 80 dB for an 8-hour working day has been demonstrated to damage hearing.

Loud sounds are a problem for interpreters because sudden peaks in sound intensity might lead to acoustic shock. Acoustic shock could also be caused, for example, if a microphone is accidentally dropped or if it is placed near a loudspeaker and generates a hiss known as "acoustic feedback" or the Larsen effect. A technical solution to "loud sounds" is provided by sound limiters, which can be external or built into interpreting equipment. These devices activate when sound going through interpreting consoles/headphones exceeds a critical threshold – which could also be lower than 80 dB – that has been preset. Whether these devices are consistently effective is still the object of debate, but, if properly applied and configured, they do mitigate the risk of acoustic shock. By the same token, it is suggested that interpreters who travel frequently by plane be careful with background noise in the booth, using active noise cancellation headphones and listening at a low volume. Sudden pressure changes, particularly during take-off and landing, can damage the inner ear. In this case, pressure equalisation earplugs can offer a solution, as can the Valsalva manoeuvre, which consists in pinching the nose and blowing with one's mouth shut to pop the ears. Flying with a cold heightens the risk of hearing trauma due to pressure differentials, potentially even causing a perforation of the eardrum. Therefore, it is suggested to seek medical advice about specific medications for airway decongestion to be taken prior to flying (e.g. a nasal spray with decongestant).

Precaution is also highly recommended with regard to the quality of sound interpreters are exposed to when working on Remote Simultaneous Interpreting (RSI) platforms. In a conventional SI setting, all participants convene at the same place, and high-quality sound transmission is ensured by professional hardware monitored by professional technicians. In an RSI setting, the actors involved (RSI platform administrators, participants, speakers, interpreters) are located in different places and may use low-quality microphones or unsuitable devices, such as mobile phones, to

connect and speak, which makes the sound transmission chain of control more complex and often results in substandard audio quality for interpreters. Although the correlation between hearing injuries and the use of RSI platforms has not been demonstrated by conclusive evidence, it has been suggested that the manipulation of sound frequencies through RSI platforms' algorithms combined with the use of substandard peripherals for sound transmission might jeopardize interpreter's hearing (AIIC, 2022a; 2022b; 2022c; Twidle, 2022). Therefore, it is suggested that interpreters minimize exposure to so-called "toxic sound" (Caniato, 2023) by resorting to RSI only if no other option is available, and to stop working if the quality of sound is deemed insufficient. Symptoms of hearing problems can be as diverse as tinnitus, feelings of clogged ears, hypersensitivity to sound (hyperacusis), pain in or around the ear, hearing impairments, sensations of floating/vibrating eardrums, but also headaches, dizziness, nausea, and postural instability (AIIC, 2020).

Unfortunately, oftentimes there is not much that interpreters themselves can do to protect their hearing. In fact, working conditions and the technical equipment and the people who control or influence them play a bigger role. Therefore, AIIC has promoted and cooperated in developing international standards not only for interpreters' booths (see Mack, in this volume), but also RSI and conference systems.³ If adopted by conference organizers and technicians who operate conference systems and platforms, they can make a substantial contribution to interpreters' hearing health. However, even in an ISO-compliant SI setting, speakers can jeopardize interpreters' hearing with bad "microphone manners" (Flerov, 2014) and should, therefore, be made aware of and educated to correct microphone use.

Meeting ideal working standards for auditory health is easier said than done, especially in SI. They have to be negotiated, and not all interpreters have the same bargaining power, or are even aware of hearing hazards. This might be especially (but not necessarily⁴) true if they do not belong to a professional association and/or work as self-employed freelancers in an increasingly aggressive language service market (see also Amato, in this volume). Nonetheless, if symptoms of hearing discomfort or injury appear, interpreters are strongly advised to stop working, and immediately report them to their employer as well as consult an ear, nose, and throat (ENT) specialist for diagnosis and treatment.

A summary of recommendations to protect interpreters' hearing was published in the final report of the AIIC Acoustic Shocks Research Project (2020, pp. 30–31):

1. A course of action towards reducing detrimental acoustic events should focus on the training of clients, technicians, and interpreters in how to

handle audio equipment correctly during conferences to avoid acoustic incidents.

2. Information on how to use microphones and headsets safely should be given to all conference participants.
3. The benefits and limitations of technological devices such as headsets with sound limiters, add-in limiters or adapters, should be thoroughly assessed.
4. To raise awareness about acoustic incidents, professional associations and employers should provide interpreters with information about acoustic shocks and the associated risks and effects, as well as about noise regulations in their national jurisdiction.
5. Professional associations, employers, work health and safety agencies should be urged to develop official procedures to facilitate the reporting and monitoring of acoustic incidents occurring in the workplace.
6. As part of ongoing medical monitoring, interpreters should be encouraged to perform an annual audiological evaluation including a hearing test.
7. Conference interpreters who experience severe symptoms after an acoustic incident should rapidly consult a hearing healthcare professional (and assess the severity of each of their symptoms until their complete remission).

Protecting interpreters' voice

This section addresses the issue of preventive and coping measures for the vocal health of interpreters as it has been dealt with by professional interpreters who have provided their colleagues with advice, best practices, and suggestions for the health of their vocal tract. What follows is drawn from articles and communiqués published on private blogs or websites, and in periodicals and specialized bulletins of professional associations e.g. AIIC, the American Translator Association (ATA) or the Bundesverband der Dolmetscher und Übersetzer/Verband der Konferenzdolmetscher (BDÜ/VKD).

These sources, published since the late 1970s, initially mainly offered recommendations of a preventive nature based on the professional experience of individual interpreters. They often lacked scientific evidence and descriptions of their expected effects on the physiology of the interpreter's vocal tract. For example, interpreters suggest that colleagues pay attention to breathing (inhaling through the nose and exhaling through the mouth) to "relax" the vocal tract, to unclench the muscles, and to release tension and nervousness (without resorting to drugs or alcohol); they also recommend paying attention to posture in the booth by sitting up straight and making sure they do not adopt unfavourable postures while speaking

into the microphone when is it embedded in the console. In addition, interpreters suggest basic elements of vocal hygiene, such as coughing instead of clearing one's throat when one feels the need, avoiding smoking or taking homeopathic supplements and honey-based products as a preventive measure. All these suggestions are preventive and therefore should be implemented before losing one's voice. In that event it is recommended to see an ENT or voice specialist.

Vocal hygiene also includes recommendations for good hydration, avoiding drafts and air conditioning, and adjusting one's voice volume in the booth in order to speak without additional effort. Some interpreters invite colleagues to follow a "vocal warm-up" routine before an assignment and to seek the help of voice therapists in order to practise prophylaxis to prevent vocal disorders such as dysphonia, and, in the case of professionals who already suffer from it, to aim for long-term improvement. From the consulted sources, it appears that interpreters focus more on caring for the voice as a working tool and an important component of the quality of their professional performance, and less on self-care or the fear of becoming a patient (potentially) suffering from a vocal disorder. The main purpose of the proposed suggestions is not so much to avoid fatigue of the interpreters' voice as it is to eliminate certain defects in their elocution (monotone, hoarse, plaintive, nasal voice) in favour of a voice that is pleasant to listen to.

Since the 2000s, some interpreters' associations also started to give space to naturopaths, voice, breath and speech trainers in their publications, and to organize seminars and workshops with vocal coaches to apply some of the practices and recommendations used in the training of singers and actors to interpreting. Some professional interpreters (e.g. Vergara, 2003; Benner and Osterberg, 2019; Flerov, 2019) or MA students in interpreting (e.g. Morrone, 2023) also delve into the topic of interpreters' vocal health and draw up lists of useful tips to take care of it, drawing on scientific sources such as phoniatrists, ENT specialists and professionals from other fields (Colton and Casper, 1990; Flöricke, 2007; Borragán et al., 2008; Magnani, 2010; Erickson-Levendoski et al., 2014; Fussi, 2017; Alves et al., 2019; Matta et al., 2021).

The most frequently mentioned suggestions to maintain a healthy vocal tract, particularly regarding breathing, posture, and vocal hygiene, are listed below.

Breathing: through the nose if possible, as inhaled air is purified, warmed and moistened, which reduces dryness of the mucous membranes around the vocal cords and prevents infections; diaphragmatic breathing is preferable, as this helps make breathing deeper and calmer and to release tension spread throughout the body (especially in the jaw, tongue, neck, knees, shoulders, abdomen, chest, and vocal tract areas), which also affects the

voice in terms of vocal tiredness with impoverished sound, vocal strain, hoarseness, and in the worst cases, voice loss.

Posture: it is recommended to sit in a balanced, grounded way (feeling the contact between the body and the floor or the chair), in order to breathe more efficiently, release tension and facilitate voice emission (besides preventing back disorders). Precautions such as elevating the head of the bed, avoiding flexing the trunk by compressing the abdomen while seated, and “dietary constraints” (Colton and Casper, 1990: 233) are recommended to help prevent gastroesophageal reflux, which causes dehydration of the mucous membrane surrounding the vocal cords and impairment of the vibratory mechanism, dysphonia, difficulty in swallowing (dysphagia), the need to clear one’s voice, vocal fatigue and a persistent cough. Some practitioners, specialists and authors also suggest accompanying breathing and vocal production with the synchronous movement of other parts of the body: this can favour releasing tension, eliminating muscular rigidity, including that of the vocal tract, resulting in better voice modulation. Prior to interpreting, during preliminary preparation for an assignment, the interpreter could use a fitness ball as a seat with the aim of preventing stiffening of the muscles.

Vocal hygiene (to be practised in daily life):

- Increase “systemic hydration” levels, so as to keep the general mucosal tissue healthy by ingesting fluids (warm, non-carbonated water or tea with honey or lemon, avoid excessively cold or hot drinks). Increase the “surface hydration” in order to keep the epithelial surface of the vocal folds in good shape (Alves et al., 2019) by avoiding dry places and opting for humidified air environments through the use of humidifiers, nasal sprays, or saline solutions, breathing through a moist gauze placed under the nostrils, or wearing a surgical mask with several layers of moistened tissue inside
- Reduce the intake of substances that cause irritation of the vocal cords, overproduction and accumulation of mucus in the throat, and promote reflux, including smoke, alcohol, sugary drinks, coffee, mint, liquorice, chocolate, citrus fruits, spicy foods, dairy products, menthol-based lozenges, and drugs with contraindications for the voice, especially antihistamines
- Avoid clearing the throat, prefer to cough; do not wear clothes tight around the waist that obstruct the flow of breath
- Rest the voice with moments of silence and do not strain it: avoid speaking near sources of noise or in noisy environments that require a very high voice volume; use a Voice Intensity Controller (VIC) (Colton and Casper, 1990, p. 259), a small device that signals when a certain level of noise and vocal intensity has been exceeded, so as to induce the

speaker to speak more softly even in noisy environments; turn off or minimize the volume of the TV when it is too loud to allow speaking; use microphones and amplifiers when speaking for a large audience.

Vocal warm-up routines are also suggested by practitioners, based on experience from various other fields (singing, acting and public speaking, to name but a few), and by phoniatricians and voice trainers who hold courses for professional interpreters on behalf of professional associations, with exercises such as:

- Opening the mouth and reproducing chewing movements to release tension in the vocal tract and larynx and to avoid jaw tension; speaking while holding an object in the mouth or counting with the mouth closed, moving the tongue well inside it, so as to train the tongue muscle
- Practising the technique of “chant-talk” (Colton and Casper, 1990, p. 251), i.e. singing an utterance to promote effortless phonation, which reduces the force of vocal folds contact and tension in the vocal and laryngeal tract; humming 10-15 minutes in the morning to “wake up” and prepare the voice, making it less prone to fatigue; exercises aimed at ensuring that there is a continuous flow of air between breathing in and out, avoiding closure of the glottis before phonation and reducing the force of contact between the vocal cords. These include sighing, inhaling as if one were about to yawn by dropping the jaw and relaxing the tongue, and then exhaling with the vocal emission of a consonantal sound; blowing with a straw into a liquid, or uttering vowels inside a straw for a few minutes to stretch and decompress the vocal cords; producing sounds inside an oxygen mask that tightly adheres to the face, so that, upon contact with the mask, the sound returns and goes to open the walls of the pharynx; the exercise can also be practised without the mask, using cupped hands placed in front of the face.

Protecting sign language interpreters' upper body

Interpreting performed to allow communication between spoken and sign language users (and in some cases also between users of different sign languages) is known as Sign Language Interpreting (SLI). Sign languages, as highlighted by the name, make use of “signs” that are produced using hands, facial expressions and posture. Virtually the whole body – muscles, tendons and joints, face, neck, shoulders, arms, and hands – are heavily involved in this process. Over time – due to repetitive movements and unfavourable body postures that are forced or unchanged for a long period of time – these body parts might be subject to trauma that, if left untreated, might degenerate into musculoskeletal injury and chronic inflammatory

conditions (e.g. carpal tunnel, arthritis, tendonitis) often referred to as Cumulative Motion Injury (CMI) or Cumulative Trauma Disorders (CTD). This risk is not exclusive to users of sign languages, interpreters included, but rather shared by a variety of occupations requiring repetitive motion of specific body parts (e.g. factory workers working on a conveyor belt, or cashiers, as well as performing artists and musicians) and is one of the most extensively studied health hazards for interpreters (see Bonfiglioli et al., and Vieira Lisboa et al., in this volume).

Most studies, especially the more relevant ones, have been carried out in the USA and Canada. The USA boast the oldest institutions in the world for the higher education of the Deaf and hard of hearing, namely Gallaudet University in Washington D.C. and the National Technical Institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT) in Rochester, New York. These institutions employ sign language interpreters as part of their staff to allow communication with Deaf and hard of hearing students. In the USA (as in many other countries), Deaf people are granted equal opportunity for (tele)communication, in this case under the Americans with Disabilities Act, which means that the services of sign language interpreters are required on a large scale. Additionally, SLI is often required by law in media settings.

USA sign language interpreters were the first in the world to establish a professional association for this profession, the Registry of Interpreters for the Deaf, Inc. (RID), in 1964. Given all of the above, the USA was also the first country that had to deal with a shortage of sign language interpreters due to occupational health issues which encouraged studies on this topic, often fostered by RID and the above-mentioned research institutions.

Dean and Pollard (2001) mention CTDs as one of the main challenges faced by sign language interpreters, and tried to reinterpret them through the lens of the Demand-Control Theory (see next section). Other valuable contributions have been provided by Woodcock and Fischer, together with the Canadian Association of Sign Language Interpreters (CASLI). They examined the work of sign language interpreters from an occupational health and safety (OHS) perspective and published a comprehensive guide for sign language interpreters in 2008.

What follows draws upon the above-mentioned research and advice by professional associations and practitioners to provide an overview of measures that sign language interpreters can implement themselves at physical level to prevent and manage such injuries. Readers are advised to consult the source materials for in-depth suggestions.

To promote the physical wellbeing of sign language interpreters different areas of intervention are suggested. According to Gross – author of a guidebook on interpreting related injury (2014), who published a column on interpreter health on the RID magazine *Views* from 2008

to 2014 – while structural factors as individual anatomy and previous injuries do predispose sign language interpreters to a higher risk of injury, most “physiological” predisposing factors are easily identifiable and can be addressed effectively.

First of all, given that SLI is already physically taxing on the upper body, leisure activities should not put further strain on it. If needed, it is important to give the body time to rest and heal, as this will reduce the risk of accumulating (micro)traumas. Hence the importance of breaks, since one of the causes of trauma might be excessive workload. In this respect, Gross (2010, p. 18) distinguishes between micro-rest breaks “when you put one or both hands onto your lap if sitting, and to your side if standing – while working” and “down time” for recovery between interpreting assignments. There are many opportunities for micro-rests, during speaker pauses, for example, or thanks to effective use of visual aids.

It is suggested that interpreters stay within their physical limits and gradually condition their upper body to sustain heavier workloads. In this sense, developing a biomechanically balanced and efficient signing style can be beneficial. Ideally, when signing, joints should be free to move to distribute movement across the whole upper body, blood flow should not be restricted (e.g. by compressing tissues against armrests), and a neutral posture of the body and joints (e.g. hand in line with the forearm) should be sought.

Interpreters are also advised to refrain from “extremes”, both in terms of range (too big/small signing space) and speed of motion (forcefully accelerating/braking movements), and to maintain unavoidable impact on the upper body as gentle as possible. Efficiency can also be achieved by minimizing the use of fingerspelling, whereby every single letter of a word is spelled with signs, which is quite costly in terms of movement, compared to any sign representing the corresponding word.

Independently of signing style and conditioning, as in any other intense physical activity, a warm-up and cool-down phase, before and after signing, respectively, are considered beneficial. Warming-up awakens the body, prepares it to produce signs, and reduces the risk of signing-related injury. Blood flow to the muscles is improved, nourishment is brought in the form of oxygen, and waste by-products are expelled. A warm-up for sign language interpreters could be as short as 5-10 minutes and could provide light cardiovascular exercise as well as the stretching of hands, wrists, neck, and shoulders. Facial muscles are also used in SLI and can also be activated with specific exercises. It is therefore recommended that sign language interpreters make warm-up part of their pre-assignment routine.

In addition, they are advised to notice any tension in their muscles – as this makes them more prone to injury – and apply relaxation techniques

to relieve them (e.g. deep breathing, meditation, yoga, Tai-Chi, Qi-Gong, acupuncture). A further aspect that can also be fine-tuned is diet, given that certain types of food are known to increase or reduce muscle inflammation and pain, and could therefore be avoided or preferred. On a final note, the impact of psychological factors on musculoskeletal injury should not be underestimated, given that muscle tension is often the result of psychological stress.

All of the aforementioned measures are most effective if implemented with a preventive approach, that is, before pain becomes a chronic condition. If sign language interpreters notice any occasional or chronic pain, they should immediately consult a specialist for diagnosis and treatment.

Dealing with stress

This section provides a brief overview of the main stress coping strategies for the major stressors in the interpreting profession as suggested by professional interpreters and practitioners, interpreting undergraduates, or PhD students. However, we are well aware that stressors interact with each other and that, in some cases, the suggested coping strategies may overlap. More specific health conditions will be discussed in separate sections.

Before delving into the topic of stress coping strategies for interpreters, it is necessary to go back to the definition of stress.

Stress can be conceptualized as a mismatch that the individual perceives between “external” and/or “internal” demands (i.e. demands set up by the environment and by the subject themselves, respectively) and the resources available for coping with them. As such, stress is determined by an event’s appraisal, assessment of individual coping resources to deal with such an event, and response to the event (Lazarus and Folkman, 1984; Taylor, 1995).

According to Karasek’s Demand-Control Model (Karasek, 1979; see also the chapters by Costa, Paganin, and Wirtz, in this volume), a job is experienced as more stressful the higher the number and complexity of its demands (requirements, aspects of the work environment, tasks) and the lower the “decision latitude” (decision-making authority and freedom, skills, resources) or “control” an individual has to cope with them.

Based on this idea, Dean and Pollard designed their influential model, known as the Demand-Control Schema (DC-S). Developed for sign language interpreters, this model is also fit for spoken language interpreting. The two authors define demands as the salient aspects of a given job. Decision latitude or control is determined by “one’s education and experience, the freedoms attributed to their professional role by society, and by the profession’s code of ethics and standards of conduct” (2001, p. 6). Interpreters face four categories of demands which can be

Table 11.1 Demands of interpreting: categories, definitions and examples

<i>Demand Category</i>	<i>Definition</i>	<i>Examples</i>
Environmental	That which is specific to the setting	Sub-categories include: goal of the environment physical surroundings personnel/clientele specialized terminology
Interpersonal	That which is specific to the interaction of the consumers and the interpreter	Power/authority dynamics Communication style Communication goals Emotional tone or mood Cultural dynamics Thought words
Paralinguistic	That which is specific to the quality of the consumers' expressive language	Physical limitations Cognitive limitations Physical positioning Idiosyncratic sign/speech Volume Pace Accents
Intrapersonal	That which is specific to the interpreter	Feelings/thoughts Physiological distractions Physiological responses

Notes: Reprinted from "The Demand Control Schema: Interpreting as a Practice Profession" by Dean, R.K. and Pollard, R.Q., Jr. (2013, p. 5), published by CreateSpace Independent Publishing Platform, by permission of the authors

stress-inducing: environmental, interpersonal, paralinguistic and intrapersonal (2013, pp. 4–5) (Table 11.1).

These four demand categories will be discussed in the following sub-sections together with coping behaviours suggested in literature to deal with them both in sign language and spoken language interpreting.

Environmental demands and coping strategies

Environmental demands are mainly related to aspects of the interpreting communication setting. They include the goal and the characteristics of the work environment, which, in the case of simultaneous conference interpreters, is traditionally the booth (e.g. too little space, poor sound, inadequate temperature, humidity and circulation of air, poor ventilation, inappropriate lighting, high carbon dioxide and low oxygen levels, background noise) (see also Mackintosh, 2003; AIIC, 2002; Mack in this volume), but also the interpreting service users and the language used by speakers and audience. Other authors refer to these demands as

interpreters' working conditions including lack of visibility of speaker or audience, poor video and sound quality, which is even more crucial in distance interpreting (Mouzourakis, 1996), assignments that overrun the agreed working hours, long shifts without breaks, poor scheduling of meetings, sudden changes, lack of background documents, long distances, traffic jams and parking, and an unhealthy diet due to time constraints (AIIC, 2002; Guntienè, 2014). Considering the trend towards distance interpreting implying working from hubs or from home, a further condition to be considered is the provision of a suitable workspace that guarantees adequate connectivity, sound insulation, and privacy.

Many different interventions have been recommended to reduce interpreters' stress caused by the environmental demands of their work. To contrast cumulative trauma disorders (CTD) in sign language interpreters, the main recommendations concern proper hand positioning and rest; those for spoken language interpreters focus on providing sufficiently large booths, regulated temperature and humidity levels, adequate air circulation, lighting and cleaning in the booths (AIIC, 2002), ergonomic seating and lumbar support. Another focus is working conditions, for instance turn length, which should be agreed with clients in advance. For instance, in psychotherapy settings, some guidelines recommend taking short, frequent breaks, rather than a few long ones (Miletic et al., 2006); this is also advisable for remote interpreting.

Interpersonal demands and coping strategies

Among the interpersonal demands of the interpreters' work there are factors related to the interaction between the participants (speakers and listeners, interpreters, and any other participant) in the communicative event, such as individuals' communication objectives and their "thought worlds" as well as power and authority dynamics between the parties, to name some of the factors cited by Dean and Pollard. Other demands falling into this category mentioned by other authors are: difficulties in defining and understanding the interpreter's role and the lack of recognition of their work (Carlson, 1981); speakers' lack of microphone etiquette, poor cooperation among colleagues and between interpreters and their clients (for instance, companies, national or international organisations language service providers, professional conference organizers (PCOs)); competition between freelancers, prolonged and frequent absences from home; communicative situations involving vulnerable people (children, victims of violence or abuse, seriously ill people), or abusive people (drunk or aggressive) (Guntienè, 2014).

Recommendations aimed at reducing stress related to the interpersonal demands of interpreting include improving communication with clients

and speakers. In this regard, AIIC (2004) proposes raising awareness of and respect for the interpreting profession and its working conditions. This involves requesting written texts that will be read out in advance, and that speakers control their speaking/reading pace, among others. Teamwork between colleagues can also contribute to improving the interpreting experience from a psychological point of view, resulting in lower psychological stress. For example, this can be done by pairing novice interpreters with more experienced ones, or choosing colleagues with whom one is acquainted in terms of reliability and strengths/weaknesses. In this way, interpreters can receive the support they need from colleagues and work in a more relaxed environment (Woodcock and Fischer, 2008).

Paralinguistic demands and coping strategies

Paralinguistic demands mainly pertain to the way in which a spoken or signed utterance is produced by a speaker and how it affects the interpreter's task (Dean and Pollard, 2013). They include the anatomical structures and the body positions involved in the production of spoken and signed language; speakers' language fluency and clarity in articulation or signing; characteristics of their speech (textual complexity, whether it is spontaneous or read); speakers' pace, accent, intonation, pronunciation; speech volume as well as psychophysical conditions. Interpreters' language knowledge, fluency and familiarity with the subject matter (new concepts, new terms, technical words, unscheduled paper) may be also included in this category of demands.

To reduce stress induced by the paralinguistic demands of interpreting, professional associations have formulated recommendations for speakers that invite them to speak in their native language whenever possible (to avoid challenging accents for interpreters), to reduce the reading speed of written texts, and to provide interpreters with written speeches, background and conference materials in advance (e.g. AIIC, 2002); it is also advised to agree upon a way to signal that the interpreter has difficulty interpreting due to the quality of the delivery or to undisciplined speakers (overlapping or not using the microphone correctly). Continuing to improve one's working languages also helps reducing stress caused by insecurity during the interpreting assignment and negative feedback (Woodcock and Fischer, 2008).

Intrapersonal demands and coping strategies

Lastly, intrapersonal demands include cognitive, physiological and psychological factors pertaining exclusively to the interpreter, such as fatigue, hunger, physical pain, uncertain role boundaries for interpreters and

consumers, perceived skill inadequacy when confronted with high performance expectations, involvement in sensitive or high-stakes situations, no outlet for dealing with emotional reactions provoked by the assignment (Dean and Pollard, 2001; 2013), feelings of job insecurity, stage fright and fear of public speaking (Flerov and Jacobs, 2016). Various studies based on interviews and surveys conducted among interpreters on job satisfaction, stress and burnout have indicated inadequate training for the real-world working conditions and lack of professional support after graduation as among the main stressors for young professionals (Dean and Pollard, 2001).

Among the coping strategies suggested for the intrapersonal demands of interpreting, the literature mainly mentions relaxation techniques. In addition to conscious and deep breathing with a regular rhythm, some practitioners propose a number of cognitive coping measures to be applied during different moments (Colton and Casper, 1990; Flerov and Jacobs, 2016):

a) In everyday life

- Leading a healthy lifestyle (healthy diet, exercising, resting), devoting time to oneself and leisure activities, practising venting, self-exploration, self-assessment, constructive thinking (Dean and Pollard, 2001; 2013), listing aspects we like about ourselves and self-gratifying (Carlson, 1981; Taylor-Bouladon, 2007)
- Practising relaxation, breathwork and stress management techniques such as mindfulness, guided imagery, meditation, yoga, muscle relaxation, or the Alexander technique (Dean and Pollard, 2001; 2013; AIIC, 2004; Woodcock and Fischer, 2008; Bancroft et al., 2022; Smith, 2018). The Alexander technique, in particular, improves self-control of neuromuscular activity and helps to assume a neutral posture (in which the head is balanced on the top of the spine and the torso is not tense), before starting any movement and after performing it, thus preventing harmful postural habits leading to or aggravating stress or pain. This technique has been reported to help release tension spread throughout the body, take control of personal emotions, and maintain a state of mental concentration, as well as cope with cognitively or emotionally demanding situations (Cooper, 1983). It has been shown that, in interpreter training, this technique helps interpreters improve their use of voice, breathing, and the way they sit, thereby helping them become more aware of their bodies and exercise greater control over them in stressful situations (Renau Michavila, 2010)

- Separating work and private life: finding the right balance between time devoted to work and time devoted to rest; ordering one's "to-do-list" in order of priority and urgency, which would help feeling less overwhelmed; practising visualisation exercises to focus on the activity at hand both during working hours and free time, such as "hanging" or "dumping" the problems of respectively private and work life on the way to and from work, to be picked up again when travelling in the opposite direction, or, imagining that there is a shower at one's door to wash away job-related problems before crossing the threshold (Carlson, 1981), "compartmentalizing" the various moments of the day with transitional activities such as changing work clothes before returning home (Bontempo, 2012).

b) Before an assignment

- Accepting assignments in work situations and contexts that are already familiar, and/or deal with subject matters that are familiar to the interpreter and, thus, require less cognitive and emotional effort; negotiating event details and confirming working conditions in advance in order to have more control over the assignment; enhancing one's knowledge of the world through reading, travelling and general curiosity (Woodcock and Fischer, 2008); preparing at best for the assignment but setting achievable goals and applying realistic quality standards in self-evaluation, recognising one's professionalism, the limits of human capabilities, as well as the limitations and (time) constraints of (simultaneous) interpreting; trying to recall and visualize a previous work experience in which a task similar to the upcoming assignment was successfully completed. This type of mental exercise may help interpreters focus on the resources they have at their disposal to positively tackle a new, potentially stressful event (Carlson, 1981; Flerov and Jacobs, 2016)
- Turning down an assignment that may raise moral issues, evoke unpleasant or traumatic personal experiences for the interpreter, or clash with their values (Woodcock and Fisher, 2008).

c) During an assignment

- Implementing self-control techniques aimed at focusing on the activity of interpreting rather than on the feelings and emotions it evokes, or, at setting aside personal values and beliefs during the act of interpreting
- Relaxing by slowing down the train of thought: focusing on a particular part of the body, or on four points/sounds in the surrounding space and shifting one's attention from one point/sound to another, trying to concentrate on the activity at hand

- Emotionally distancing oneself from stress and attempting to observe it as an external phenomenon that does not affect you. Flerov and Jacobs (2016) recommend practising *Sakshi Bhava*, an active form of meditation that, applied to interpreting, consists in splitting one's consciousness into an active part (doing the interpretation, processing information and speaking) and a passive part (intent on observing the active part at work). Identifying with the passive part can help the interpreter see the interpreting process as a continuous flow of words and thoughts that do not disturb the mind. This split between active and passive consciousness would help the interpreter to witness the process in which they are involved, but from the outside, making them suspend real-time judgement and self-assessment of their performance, helping eliminate stress and cognitive load associated with the interpreting process.

d) After an assignment

- Speaking aloud or writing down the feelings provoked by a given assignment and the coping strategies used when confronted with a previous stressful situation. Talking about them could help interpreters process these feelings (Hall, 2018). Other alternative ways to process one's emotions could be counselling or therapy
- Identifying a "cuddle group" (Carlson, 1981, p. 7) or a support group – made up of trusted partners, family members, friends, colleagues – to rely on and to listen to, so as to support colleagues on their bad days (Bancroft et al., 2022; see also Costa, in this volume); asking interpreting service agencies and PCOs to provide advice and psychological support, and to arrange a debriefing session after the assignment.

Learning how to cope with stress

The degree of stress interpreters experience in a given assignment (or even part of it) will depend on the interaction between the four categories of demands mentioned in the previous subsections and the decision latitude available to cope with them. In the interpreting profession, decision latitude is not limited only by the first three categories of demands, which are mostly beyond the interpreter's control. There are also professional principles (e.g. confidentiality, accuracy) contained in most codes of conduct and ethical guidelines for interpreters, which often limit the interpreters' role to the mere translation task and restrict their possibility of supervised work, of sharing work experiences with peers, and of conscious or unconscious decisions to adhere to the professional principles they have been encultured in. As a result, interpreters will be denied agency, will have fewer resources to deal with the demands they face, and

will be exposed to higher levels of occupational stress (Carlson, 1981; Dean and Pollard, 2001).

The above-mentioned coping measures against stress are predominantly aimed at making changes either to the interpreter's work environment, or to their behaviour as an individual and professional, so as to manage occupational stress as an inevitable consequence of job-related activities (Karasek and Theorell, 1990; Dean and Pollard, 2001). However, these measures do not consider the interaction between the work environment and the individual as a potential solution to stress and do not aim to increase the decision latitude/control of interpreters, which would enable them to better cope with the demands posed by their work and thus expose them to a lower degree of occupational stress (Dean and Pollard, 2001).

Repetition of certain activities can change the relationship between an individual's behaviour and the activation of their stress response (Sapolsky, 1994). Furthermore, a lack of social support at work, especially from supervisors, has been shown to be related to occupational burnout (Maslach et al., 2001). In the interpreting profession, apart from the unpredictability of some external variables, interpreters with more experience and training seem to exercise greater control over stressful situations (Riccardi et al., 1998) and, thus, are exposed to lower levels of stress. To increase decision latitude/control, Dean and Pollard propose to introduce these concepts already in interpreter education and training.

In light of these observations, following the example of other highly stressful professions (e.g. medicine, law enforcement, mental health, teaching), periods of practise-based supervision, mentorship and guidance in skill-application following graduation and prior to independent professional practice could equip novice interpreters with greater control and decision-making power to better cope with stressful situations in the interpreting contexts in which they work (Dean and Pollard, 2001; Pollard et al., 2021).

The positive, action-oriented coping strategies outlined here, which aim to manage the emotional responses that may arise and to cope with the resulting stress, should indeed already be acquired by novice interpreters through interpreter education programmes, training opportunities and mentoring. In fact, Bontempo believes that:

Despite the need to effectively manage the learning environment, the contained and controlled classroom space is certainly a better place for initial exposure to such concepts and emotional reactions, and for discussing coping strategies [...] Formal learning about grief, loss, suicide, depression, neglect, mental health, abuse, and other emotionally difficult topics, when integrated into interpreter education programs, would help mitigate to an extent the powerful impact of these topics in a real crisis. Information is power, and effective coping in a traumatic

situation will be enhanced by having a range of problem-solving strategies, practical information about what to expect, and tangible support networks.

(2012, pp. 192–194)

At the same time, institutions and organisations that employ interpreters should assign novice interpreters a mentor to provide them with advice and support in the early stages of their professional practice, and they should offer all their interpreters professional development opportunities and activities based on stress reduction, especially when they are exposed to highly traumatic or stressful situations (Bontempo, 2012). Freelance interpreters, who are even more exposed, are strongly encouraged to use the coping strategies outlined in this section as a starting point for adopting work practices and techniques that will help them prevent and/or reduce the negative effects of highly stressful work situations.

Preventing vicarious trauma

Interpreting involves listening to, processing and translating what other people say, including stories of suffering and trauma (war, displacement, torture, violence, abuse, illness etc.) and then reuttering it, mostly using the first-person pronoun “I”. This kind of exposure to traumatic narrative, where interpreters indirectly re-experience the trauma of others, can affect their emotional state and mental health (Feuerle, 2020), even in a single encounter. Repeated exposure may give rise to vicarious trauma (Darroch and Dempsey, 2016). Interpreting with victims of trauma can take place in a variety of contexts such as war tribunals, police interviews/questionings, refugee and asylum settings, psychotherapy, or palliative care, but emotionally loaded contents may also come up in other settings.

A first preventive measure for interpreters is to get as much information as possible before an assignment regarding the nature and content of the meeting, interview, or consultation. By doing so, they can make an informed choice about whether to accept the job and better prepare themselves to cope with potentially traumatic content. Since personal traits and personal history – especially if not successfully processed – are likely to predispose interpreters to vicarious trauma, a choice should be made on that basis as well (Geiling et al., 2021). Interpreters are therefore advised to seek cooperation with other professionals (e.g. judges, police officers, therapists, and medical personnel), especially in the form of briefings and debriefings. This could help clarify the role of the interpreter, foster teamwork and provide an opportunity to exchange and discuss any relevant information concerning the encounter (Hancox et al., 2023). In addition, this would constitute the scaffolding of a system for interpreters to access

support and supervision (see also Costa, in this volume). Ideally, such a system should be offered by the provider of interpreting services and – in addition to briefing and debriefing sessions – it should provide interpreters with access – either individually or collectively (peer support groups) – to psychotherapy and counselling services to professionally relieve the potential burden of exposure to taxing or traumatic content. Furthermore, Interpreting Studies stress the importance of specific training for such situations, given that experience is considered a protective factor. The framework that provides this kind of training is the so-called “trauma-informed approach” (see Tasnim-Musa, 2022 for a literature review).

Where no support system is offered or available at all, interpreters are advised to resort to self-care activities (e.g. exercise, yoga, writing, cooking, spirituality, religion, engaging in extra learning and training, psychological preparation, positive self-talk, and laughter, as recommended by Darroch and Dempsey, 2016) and their own social support network (talking to friends, family, and colleagues while maintaining confidentiality), but caution is required in order not to overestimate one's own resilience. Coping strategies to be applied on the job, such as avoidance, emotional detachment, interpreting in the third instead of the first person, and taking a break to recentre are also suggested, but once again, they often prove insufficient or offer only temporary fixes. By any means, interpreters are advised to reduce or even interrupt exposure to traumatic content and seek professional help as soon as they feel it is taking a toll on their emotional and mental health.

Conversely, some researchers argue that dealing with traumatic content can also be beneficial for interpreters similarly to victim support professionals in terms of fulfilment and enhanced job satisfaction. If the victim processes and successfully overcomes personal trauma, interpreters will also indirectly be affected by this positive outcome (vicarious post-traumatic growth – VPTG) and become more resilient. However, only few studies have explored VPTG in interpreters so far (for a literature review, see Guo et al., 2023).

Vicarious trauma and “trauma-informed interpreting” have gained a lot of attention in Interpreting Studies over the last decade, with in-depth training offers and related materials as well as several reviews of topic-related literature currently available (Helmerichs, 2020). In particular, initiatives as the *Pásalo Project* in the UK⁵ proved to be a valuable resource. Readers are advised to refer to this body of knowledge and the references for further insight.

Preventing burnout

The International Classification of Diseases (ICD-11) defines burnout as a syndrome resulting from chronic occupational stress that has not been

successfully managed. People suffering from burnout experience feelings of energy depletion or exhaustion, increased mental distance from their job or feelings of negativism or cynicism related to it, a sense of ineffectiveness, and a lack of accomplishment. Burnout is exclusively work-related. Lack of social support at work, especially from supervisors, has also been shown to be related to occupational burnout (Maslach et al., 2001).

Interpreters report higher levels of burnout compared to other professions (AIIC, 2002), especially, but not only, sign language interpreters working in schools and in Video Relay Service (VRS), a form of distance interpreting performed by sign language interpreters via videoconference (Dean and Pollard, 2010; Zorlu and Özkaya Marangoz, 2024). If both physical and psychological sources of stress on the job – as the ones described in this chapter – are recognized and proactively dealt with by interpreters, the risk of burnout may be reduced considerably.

One particular intrapersonal aspect interpreters should be aware of with regard to burnout is perfectionism – a personality trait which can act as a double-edged sword, as suggested by Schwenke (2015). Perfectionists strive for high standards and assess their performance against these standards. Given that codes of professional conduct set forth by professional associations of interpreters legitimately set high standards, if interpreters tend to always negatively judge their performance, they might reinforce perceived stress even more and expose themselves to a higher risk of burnout. On the other hand, if interpreters develop perfectionism in a way that sets high standards but deals constructively with mistakes and derives satisfaction from job completion, a virtuous cycle is initiated with regard to burnout prevention.

On a more practical note, Schwenke advises interpreters to familiarize themselves with the Demand-Control Schema (DC-S) by Dean and Pollard and to engage in reflective practice and supervision so as to share and discuss work-related information in a way that complies with confidentiality. Finally, interpreters surveyed by Bower (2013) asked for more opportunities to meet with other interpreters and talk about their work in order to prevent burnout.

Conclusion

This chapter has provided practical suggestions on how to promote interpreters' wellbeing with a holistic approach, drawn from the existing literature produced mainly by professionals and professional associations. The authors hope that this contribution will increase awareness of the importance of interpreters' wellbeing among interpreters, as well as among providers and users of interpreting services. The final purpose of this work is to make interpreters aware of existing practices and recommendations

that can be of help, and especially to encourage interpreters to consider the protection of their own wellbeing as a professional skill and responsibility worth investing time and resources in. Users of interpreting services are called upon to actively support interpreters in this feat. Interpreters' requests with regard to working conditions should be seen as a sign of their willingness to offer high quality interpreting services rather than a tantrum. It is only through this joint effort that improvements in interpreters' wellbeing can be achieved.

Notes

- 1 Grey literature is information derived from many different sources as government bodies, academia, business and industry, published in electronic and print formats through non-commercial publishing channels. It includes data with varying levels of reliability and review, like reports, dissertations, conference proceedings, newsletters, and blogs.
- 2 The terms "earphones" and "headphones" are used as synonyms here, and in contrast with headsets are not combined with a microphone. Earbuds will not be mentioned, as their use while interpreting is acoustically problematic and therefore discouraged. The AIIC Technical and Health Committee regularly checks available models for their characteristics and suitability for use, especially for simultaneous interpreting.
- 3 For an overview, see <https://greece-cyprus.aiic.org/site/gr-cy/GuidelinesStandards> (Retrieved on December 15, 2024).
- 4 There are striking testimonies also by experienced and well-aware professionals, e.g. "How bad sound led to tinnitus and hyperacusis; An interpreter's journey" by J. Goldsmith, www.youtube.com/watch?v=c6nGMZX4ox4 or "Da Duvida à clareza: A evolução de um intérprete para te ouvir melhor" by L. Penha, www.youtube.com/watch?v=RfVhOTQengo&list=PLFc7w7bc-UBR6mhe8wMmV8SZufh4rf&index=2.
- 5 www.pasaloproject.org

References

- AIIC. (2002). Interpreter workload study full report. *AIIC Webzine*, February 2002.
- AIIC. (2004). Practical guide for professional conference interpreters. *Communicate!*, 26(3), 1–19.
- AIIC. (2020). *Acoustic shocks research project: Final report*. <https://aiic.org/uploaded/web/Acoustic%20Shocks%20Research%20Project.pdf>
- AIIC. (2022a, January). *Declaration on auditory health*. AIIC Assembly. https://aiic.org/document/10157/Declaration-auditory-health_janv22.pdf
- AIIC. (2022b, September). *Resolution on sound quality*. AIIC EU Negotiating Delegation. <https://aiic.org/document/10590/Resolution%20on%20Auditory%20Health%20and%20Sound%20Quality%20v2.pdf>
- AIIC. (2022c, September 1). *Resolution on auditory health*. Staff Interpreters' Committee. https://aiic.org/document/10559/CdP_Resolution_Auditory%20Health_FINAL_Sept22.pdf

- AIIC. (2022d). *Technical note on the effects of dynamic range compression and other forms of digital sound processing on the hearing of conference interpreters*. <https://aiic.org/uploaded/web/UN%20NegDel/Technical%20Note%20to%20the%20CEB.pdf>
- AIIC THC. (2019). Technical study on transmission of sound and image through cloud-based systems for remote interpreting in simultaneous mode (Remote Simultaneous Interpreting-RSI). Neumann & Müller Audio Engineers. <https://aiic.ch/wp-content/uploads/2020/04/aiic-technical-study-rsi.pdf>
- AIIC THC. (2022a). *Microphone study: Executive summary and test report*. https://aiic.org/document/11330/THC_MicrophoneStudy_FullReport_Final_26%2012%202023_approved.pdf
- AIIC THC. (2022b). *Microphone study: Microphones table*. https://aiic.org/document/10711/Microphones_table_05_2023.pdf
- Alves, M., Krüger, E., Pillay, B., van Lierde, K., & van der Linde, J. (2019). The effect of hydration on voice quality in adults: A systematic review. *Journal of Voice*, 33(1), 125.e13–125.e28. <https://doi.org/10.1016/j.jvoice.2017.10.001>
- Bancroft, M.A., Piwowarczyk, L., Berthold, S.M., Hanscom, K., Green, C., Goodfriend-Koven, N., Robinson, L., Kelly, N., Roat, C.R., Chevalier, A., & Bambarén-Call, A. (2022). *Healing voices: Interpreting for survivors of torture, war trauma and sexual violence: A training manual*. MCIS Language Solutions.
- Benner, C., & Osterberg, S. (2019). Stimme als Werkzeug und Qualitätsparameter. In J. Gätjens, B. Luz, & S. Osterberg (Eds.), *Handbuch Dolmetschen* (pp. 337–358). BDÜ Weiterbildungs- und Fachverlagsgesellschaft.
- Bontempo, M.K. (2012). *Interpreting by design: A study of aptitude, ability and achievement in Australian Sign Language interpreters* [PhD dissertation] Macquarie University.
- Borragán, A., Lucchini, E., Agudo, M., González, M.J., & Ricci Maccarini, A. (2008). Il metodo propriocettivo elastico (PROEL) nella terapia vocale. *Acta Phoniatica Latina*, 30(1), 18–50.
- Bower, K. (2013). Stress and burnout in video relay service interpreting. *Registry of Interpreters for the Deaf Views*, 30, 18–19.
- Brunale, L. (2022). *Occupational health risks for interpreters: Exploring an uncharted field*. (Unpublished master's thesis). Università di Bologna, Forlì campus, Italy.
- Caniato, A. (2023). 'Only speech'? The consequences of digitally manipulated 'videoconference' sound on auditory health. Intervention at La Semaine du Son de l'UNESCO 2023. <https://youtu.be/BK0GKUTYy9A?t=4723>
- Carlson, R. (1981). Coping with stress or only you can prevent interpreter burn out. In *Conference of Interpreters Trainers, 2nd National Convention*, March 12-15, 1981, (n.p.).
- Colton, R.H., & Casper, J.K. (1990). *Understanding voice problems: A physiological perspective for diagnosis and treatment*. Williams and Wilkins.
- Cooper, A. (1983). The Alexander technique—A contribution to health. *AIIC Bulletin*, 11(3), 83–86.
- Darroch, E., & Dempsey, R. (2016). Interpreters' experiences of transference dynamics, vicarious traumatisation, and their need for support and supervision: A systematic literature review. *The European Journal of Counselling Psychology*, 4(2), 166–190. <https://doi.org/10.5964/ejcop.v4i2.76>

- Dean, R.K., & Pollard Jr., R.Q. (2001). Application of demand-control theory to sign language interpreting: Implications for stress and interpreter training. *The Journal of Deaf Studies and Deaf Education*, 6(1), 1–14. <https://doi.org/10.1093/deafed/6.1.1>
- Dean, R., & Pollard Jr., R.Q. (2010). RID research grant underscores occupational health risks: VRS and K-12 settings most concerning. *Registry of Interpreters for the Deaf Views*, 27, 41–43.
- Dean, R.K., & Pollard Jr., R.Q. (2013). *The demand control schema: Interpreting as a practice profession*. CreateSpace Independent Publishing Platform.
- Erickson-Levendoski, E., Sundarrajan, A., & Sivasankar, M.P. (2014). Reducing the negative vocal effects of superficial laryngeal dehydration with humidification. *Annals of Otolaryngology, Rhinology & Laryngology*, 123(7), 475–481. <https://doi.org/10.1177/0003489414527230>
- Feuerle, L.M. (2020). Interpreting for victims of violence: Its impact on victims and interpreters. In I.E. de V. Souza & E. Fragkou (Eds.), *Handbook of research on medical interpreting* (pp. 227–259). IGI Global.
- Flerov, C. (2014, July 17). Speakers, mind your microphone manners. *AIIC Blog*.
- Flerov, C. (2019). Golden ears, golden tongues: How interpreters should take care of the tools of their trade. *AIIC Blog*.
- Flerov, C., & Jacobs, M. (2016). *Improving the interpreter's voice*. Lulu Publishing Services.
- Flöricke, J. (2007). Atmung und Stimme: Alles eine Frage der richtigen Technik. *MDÜ Fachzeitschrift für Dolmetscher und Übersetzer*, 4, 43–44.
- Fussi, F. (2017). *Come si 'riscalda' la voce*. www.francofussi.com/come-si-riscalda-la-voce/
- Geiling, A., Knaevelsrud, C., Böttche, M., & Stammel, N. (2021). Mental health and work experiences of interpreters in the mental health care of refugees: A systematic review. *Frontiers in Psychiatry*, 12. <https://doi.org/10.3389/fpsy.2021.710789>
- Gross, D. (2010). The ergonomics of interpreting. *RID Views*, 27(2), 18–19.
- Gross, D. (2014). *Sign safely, interpret intelligently: A guide to the prevention and management of interpreting related injury*. Createspace.
- Guntiené, D. (2014). *Community interpreting and the stress factor* (Unpublished master's dissertation). Queen's University Belfast, United Kingdom.
- Guo, N., Muurlink, O., & Doyle, S. (2023). Psychological risks experienced by interpreters in the domestic violence cases: A systematic review. *Frontiers in Sociology*, 8. <https://doi.org/10.3389/fsoc.2023.1139431>
- Hall, B. (2018). The daily work of a reflective practice. *VIEWS*, 35(2), 54–55, 66–67.
- Hancox, J.A., McKiernan, C.F., Martin, A.L., Tomas, J., & MacArtney, J.I. (2023). The emotional effects on professional interpreters of interpreting palliative care conversations for adult patients: A rapid review. *Palliative Medicine*, 37(7), 931–946. <https://doi.org/10.1177/02692163231169318>
- Helmerichs, C. (2020, February 13). *Vicarious trauma and interpreters*. ATA Interpreters Division. www.ata-divisions.org/ID/vicarious-trauma-and-interpreters/

- Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285–308. <https://doi.org/10.2307/2392498>
- Karasek, R., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstructing of work life*. Basic Books.
- Kurz, I. (1992, December). All ears. Technical/Health Committee report on audiometric tests among conference interpreters. *AIIC Bulletin*, XX(4), 6–9.
- Lazarus, R., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Mackintosh, J. (2003). The AIIC workload study. *FORUM*, 1(2), 189–214.
- Magnani, S. (2010). *Vivere di voce: L'arte della manutenzione della voce per chi parla, recita e canta*. Angeli.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- Matta, R.S. da, Santos, M.A.R., Plec, E.M.R.L., & Gama, A.C.C. (2021). Multidimensional voice assessment: The immediate effects of Lax Vox® in singers with voice complaints. *Revista CEFAC*, 23(2), e4520. <https://doi.org/10.1590/1982-0216/20212324520>
- Miletic, T., Piu, M., Minas, H., Stankovska, M., Stolk, Y., & Klimidis, S. (2006). *Guidelines for working effectively with interpreters in mental health settings*. Victorian Transcultural Psychiatry Unit.
- Missirliu, C. (1982, December). What price an interpreter's ears? *AIIC Bulletin*, X(4), 5–8.
- Morrone, T. (2023). *L'importanza della cura e della gestione vocale in un interprete: Un case study* (Unpublished master's thesis). Università di Bologna, Forlì campus, Italy.
- Mouzourakis, P. (1996). Videoconferencing: Techniques and challenges. *Interpreting*, 1(1), 21–38. <https://doi.org/10.1075/intp.1.1.03mou>
- Pollard, R.Q., Dean, R.K., Samar, V.J., Knigga, L.M., & Taylor, T.L. (2021). Cortisol dysregulation among American Sign Language interpreters in different work settings: Confirmation of occupational health risks. *Interpreting and Society: An Interdisciplinary Journal*, 1(1), 28–50. <https://doi.org/10.1177/27523810211036238>
- Renau Michavila, M. (2010). La técnica Alexander, una nueva voz en la didáctica de interpretación. *Puentes*, 9, 81–88.
- Riccardi, A., Marinuzzi, G., & Zecchin, S. (1998). Interpretation and stress. *The Interpreters' Newsletter*, 8, 93–106. EUT Edizioni Università di Trieste.
- Sapolsky, R. (1994). *Why zebras don't get ulcers: A guide to stress, stress-related diseases, and coping*. W.H. Freeman and Co.
- Schwenke, T.J. (2015). Sign language interpreters and burnout: Exploring perfectionism and coping. *JADARA*, 49(2). <https://repository.wcsu.edu/jadara/vol49/iss2/7>
- Smith, S.L. (2018). Post holiday stress—3 quick fixes. *The Interpreting Coach*. www.theinterpretingcoach.com/post-holiday-stress/
- Tasnim-Musa, N. (2022). Contextualizing trauma in trauma-informed interpreting: A narrative literature review. *New Voices in Translation Studies*, 27(1), 1–36.

- Taylor, S.E. (1995/2015¹⁰). *Health psychology*. McGraw Hill.
- Taylor-Bouladon, T. (2007). *Conference interpreting: Principles and practice*. BookSurge Publishing.
- Twidle, K. (2022). *Overview of literature on the effects of compressed sound in remote simultaneous interpretation*. <https://aiic.fr/wp-content/uploads/2022/04/2022-rsi-risks-intepreters-compendium.pdf>
- Vergara Bacci di Capaci, M.S. (2003, April 16). *Our voice and ears: Spreading the word*. *AIIC Blog*.
- Woodcock, K., & Fischer, S.L. (2008). *Occupational health and safety for sign language interpreters*. Ryerson University. www.casli.ca/Health-and-Safety-Resources
- Zorlu, B.N., & Özkaya Marangoz, E. (2024). Evaluation of remote interpreting in terms of stress and burnout. *Trakya University Journal of Faculty of Letters*, 14(28), 139–163. <https://doi.org/10.33207/trkede.1432715>