

# The voice use of street artists

## O uso da voz em artistas de rua

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### Descritores

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### ABSTRACT

**Purpose:** To investigate the voice use of street artists from their vocal complaints, vocal disadvantage related to their profession, the perception of the conditions and the environment in which they use their voice, in addition to the role of the voice in their profession. **Methods:** Twenty-four street artists participated in this study. They all responded to two protocols: Vocal Symptoms Scale (VSS) and Vocal Disadvantage Index (VDI-10), and to two questionnaires: one with objective questions related to their working conditions and environment, and the other containing open questions regarding the meaning of the voice. Mean values of responses to both protocols were calculated. Frequency description and percentiles present the results of the questionnaire with closed questions. Analysis of the data from the questionnaire with open questions was done using the content analysis method. **Results:** Mean values of the VSS were above normal limits, while the mean values of the VDI-10 were within normal limits. Some risk factors for vocal disorders were found, as the lack of use of the microphone and a dusty, smoky, and noisy working environment. Regarding the importance of the voice, two categories were identified: the need to care for their voice and the impact their voice has on people. **Conclusion:** There are vocal complaints among street artists, but no vocal disadvantage was found. The working conditions and environment are a risk to the artists' voice. The importance of the voice to the group is related to their professional activities, relation with the public, and professional and personal satisfaction.

### RESUMO

**Objetivo:** Investigar o uso da voz em artistas de rua, a partir da autorreferência de queixas vocais, desvantagem vocal associada à profissão, percepção do ambiente e condições de uso da voz na atividade, e representação da voz para a atividade profissional. **Método:** Participaram 24 artistas de rua, que preencheram os protocolos ESV (Escala de sintomas vocais), IDV-10 (Índice de Desvantagem Vocal), além de dois questionários, um composto por questões objetivas relacionadas ao ambiente e condições de trabalho e um segundo com perguntas abertas sobre representação da voz. Para análise quantitativa, foi realizada uma estatística simples verificando a média do ESV e IDV-10 e para o questionário de perguntas fechadas, a frequência e a porcentagem dos resultados. Na análise qualitativa, foi utilizado o método de análise do conteúdo. **Resultados:** A média do resultado da ESV foi acima do ponto de corte da normalidade e do IDV-10 dentro da normalidade. Surge como fator de risco vocal o não uso do microfone, o ambiente de trabalho com poeira e fumaça e o local de trabalho ser ruidoso e incomodativo. Sobre a representação da voz, foram identificadas três categorias: importância da voz para os artistas de rua, cuidados com a voz e o impacto da voz sobre as pessoas. **Conclusão:** Existem queixas vocais, porém não há impacto na qualidade de vida. O ambiente e condições de trabalho trazem riscos a distúrbios da voz. A representação da voz para o grupo se relaciona à sua atividade profissional, relação com público, satisfação pessoal e profissional.

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## INTRODUCTION

Street artists perform in public spaces to express their art and entertain the general public. These professionals are present all over the world, turning cities into their stage and showcase of their artistic performances<sup>(1-3)</sup>.

The workplaces of street artists are generally open spaces<sup>(4)</sup> with different kinds of noise-either from the street, transportation, traffic or people talking.

Street artists who use their voice normally don't employ sound amplification systems such as microphones in their performances, which can bring additional stress upon their voice during presentations. The absence of suitable acoustics in their noisy environment and lack of amplification systems can have an impact on the voice of these artists, who use it as the primary expressive medium for their art<sup>(5)</sup>.

The literature describes singers, gym instructors, teachers, salesmen, telemarketing attendants, receptionists, and actors as professionals who are most at risk of suffering from vocal disorders. The high prevalence of vocal disorders among these professionals is explained by intensive and prolonged vocal use voice in addition to the noise and poor acoustics in their work environment<sup>(6-7)</sup>.

Vocal care is an essential requisite for those who need their voice as a key asset of their trade. For these professionals, it is important to have good vocal projection with precise articulation, pneumo-phono-articulatory coordination and good sound output, rhythm and velocity, to convey clarity of ideas<sup>(8-9)</sup>.

Understanding the relation between problems in their voice and their environment is imperative for these professionals, since studies have shown that the development of vocal issues is also related to the work environment. Adverse working conditions, such as ambient dust, smoke, and temperature changes can irritate the vocal fold mucosa and negatively influence voice<sup>(7)</sup>.

Due to its importance for professionals who use it, the voice needs special care and attention in order to remain healthy and so it does not interfere either with efficient communication or with the professional's financial life. From this perspective, an investigation of vocal problems that seeks to understand the role of the voice in the professional activity of street performers may help to promote vocal health and prevent these disorders.

This study has aimed at researching use of their voice by street performers starting from their own reports about vocal complaints, vocal disadvantages associated with their profession, perception of the environment, conditions of use of the voice in their performance and role of the voice in their professional activity.

## METHODS

This is an exploratory study using a quantitative-descriptive and qualitative approach, approved by the Ethics Committee under no. 1.903.916. It was carried out with 24 street performers aged between 18 and 54 who use their voice in professional performances, excluding from the research those who declined to

participate. All participants signed a Term of Free and Informed Consent (TFIC).

Participants answered a Vocal Symptom Scale (VSS) protocol<sup>(10)</sup> to check for existence of vocal complaints in that population, a Vocal Disadvantage Index (VDI-10) protocol<sup>(11)</sup> to evaluate professionals' quality of life, and a questionnaire with objective questions related to individual, environmental (physical), and organizational aspects, as well as to use of the voice in their professional activity.

At a second stage, 12 participants were chosen among the 24 artists using the response saturation technique, employed in data analysis when responses become redundant. These 12 participants answered a second questionnaire made up of open questions investigating the role of voice within the group and involving data on impressions about their own voice, knowledge about vocal health, and voice use habits in general.

Simple statistics was used for content analysis of the VSS protocol, adding up protocol scores and calculating the arithmetic mean. The results were correlated with existing vocal complaints. The same statistic used in VSS was used to analyze the VDI-10 protocol, correlated with average quality of life in the group studied.

A descriptive statistical analysis of the frequency and percentage of artists who answered the questions posed was carried out to examine the questionnaire about individual, ambient (physical), and organizational aspects of voice use in professional activity, looking at self-reference about the environment and conditions of voice use in their work.

The authors chose the content analysis method, Bardin's perspective<sup>(12)</sup>, to evaluate open interviews about the role of the voice. This method consists of a set of communication analysis techniques investigating meanings, drivers, aspirations, beliefs, values, and attitudes resulting from objective human action, apprehended through everyday life, experience and explanations of people who live in a certain situation<sup>(12)</sup>. The analysis began with a transversal reading of interview transcriptions, to establish an initial contact with the texts and apprehend meanings that transpired from the subjects' statements. Afterwards, the ideas, phrases, and paragraphs identifying the convergences and divergences of participants regarding the content studied were analyzed to identify categories and subcategories referring to the role of the voice according to the participants.

The results include three categories, presented as excerpts from participants' statements. These excerpts are followed by numeric identification of subjects (in parenthesis). Example: SA(street artist)1 = subject 1.

## RESULTS

Regarding the VSS, the average maximum score in the group studied is 21.41, with a minimum value of zero and a maximum of 51; subscale averages are: limitation 11.91, emotional 1.8 and physical 6.41.

The average maximum VDI-10 score in this group is 7.16, the minimum value is zero and the maximum 23; subscale averages are: physical 3.66, organic 2.41 and emotional 1.1.

According to data on Table 1, five individuals (20%) of the population studied are active in the profession between the ages of 11 and 20, 13 (63%) have a voice workload between six and eight hours, of whom 20 (83%) take vocal rest. Nineteen (79%) report dust and smoke in their work environment and 19 (79%) agree their work environment is noisy and uncomfortable. None of the performers reported good acoustics in their work environment (Table 2). Seventeen (71%) use their voice in other work environments, such as shows, bars, weddings and popular parties (Table 3).

As for role of the voice, three categories emerge from street artists' responses: voice relevance for street performers, vocal care and voice impact on people.

Regarding importance of the voice, subcategories identified based on interviewee responses were: professional activity, transmission of emotions and identity.

In the professional activity subcategory, relevance of their voice is explained by street artists as follows:

*My voice is the basis of my profession [...] (SA3).*

*It enables me to earn my living (SA6).*

As for transmission of emotions, many express the joy and emotion conveyed by their voice:

*I was born to spread joy, to bring happiness to people (SA1).*

*It conveys all the best things we wish people, I think it expresses what is good [...] (SA6).*

Concerning the understanding that their voice is important in revealing their identity, the following aspects were identified in the identity subcategory: “[...] *My voice shows I am very happy with what I do*” (SA1), “*When I release my voice, I show who I am and what music is to me*” (SA8) (Chart 1).

As for vocal care, four subcategories were identified based on interviewees' responses: healthy vocal habits, unhealthy vocal routines, professional orientation and voice discomfort.

Regarding healthy vocal habits, elements such as drinking water, eating apples and avoiding smoking are cited:

*I take good care of my voice, I drink plenty of water [...], I always carry a bottle of water around to wet my throat and I also eat apples (SA1).*

*First I quit smoking; I drink plenty of water; I bought a sound apparatus and now I use a microphone to sing [...], I don't like to push my voice, if I feel I am pushing it too much, I can no longer perform [...] (SA7).*

In the subcategory unhealthy vocal habits, some performers report they don't care for their voice as they should, and that sometimes they must speak louder due to street noise.

In terms of professional guidance, some reported following advice and others have never sought it. And there are those who are curious and look for information online by themselves:

**Table 1.** Organizational aspects of the work

Item	N		%	
	n	%	n	%
<b>Time in activity</b>				
• 1 month to 5 years	15	63		
• 6 to 10 years	4	17		
• 11 to 20 years	5	20		
<b>Voice use workload</b>				
• Up to 4 h per day	3	12		
• 4 to 6 h per day	4	17		
• 6 to 8 h per day	13	54		
• More than 8 h per day	4	17		
<b>Break time</b>				
• ≤15 min	4	23		
• 15 to 20 min	6	25		
• 30 min	14	58		
• No break	0	0		
			Yes	No
	n	%	n	%
<b>Takes vocal rest</b>	20	83	4	17
<b>Is satisfied with the activity</b>	22	92	2	6
<b>Is satisfied with earnings</b>	15	63	9	37
<b>Uses microphone</b>	9	37	15	63

**Table 2.** Workplace aspects

Item	Yes		No	
	N	%	n	%
<b>Silent</b>	0	0	24	100
<b>Dust or smoke</b>	19	79	5	21
<b>Noisy (uncomfortable)</b>	19	79	5	21
<b>Noisy (unbearable)</b>	3	12	21	88
<b>Ventilated</b>	0	0	24	100
<b>Good acoustics</b>	0	0	24	100

**Table 3.** Individual aspects

Item	Yes		No	
	n	%	n	%
<b>Uses voice in other space</b>	17	71	6	29
<b>Reflux</b>	7	29	17	71
<b>Gastritis</b>	6	25	18	75
<b>Sinusitis</b>	6	25	18	75
<b>Laryngitis</b>	5	21	19	79
<b>Smoking</b>	13	54	11	46
<b>Drinking</b>	14	58	10	42

*I never sought professional advice (SA1).*

*There was no actual professional help, only on the screen, on the internet [...], I feel as prepared and as good as any other professional (SA3).*

Regarding voice discomfort, most report nothing bothers them, and those who do have complaints about their voice are rare (Chart 1).

Concerning voice impact on people, subcategories identified based on interviewee responses were: expression of positive feelings and discomfort.

In the subcategory expression of positive feelings, the study identified statements such as “*My voice conveys many good things, people say it made their day just to hear me sing, they feel better, they were stressed and it relieved them*” (SA5).

In the subcategory discomfort, most agree that noise from presentations may bring discomfort to the audience: “*People may*

**Chart 1.** “Importance of the voice for the street artist” and “Vocal care”

SUBCATEGORIES	EXCERPT FROM STREET ARTISTS' STATEMENTS
• Professional Activity	<i>It is very important because we improve our work and it informs people of the best merchandise in the shop (SA1). My voice is the basis of my profession [...] (SA3). It is everything to me, it is my work, my function. (SA4). Without it my profession does not exist [...] (SA4). Because it enables me to earn my living (SA6). It is the basis of my work as a vocalist (SA7). Voice is important, as it enables us to perform our work with excellence (AR8).</i>
• Transmission of feelings	<i>I was born to spread joy, to convey happiness to people (SA1). It transmits all the best things we wish people, I think it expresses what is good [...] (SA6). My voice is able to decipher my feelings, both the static feelings in a song and millions of random emotions we feel in some situations of life [...] My voice is also a means of expression (SA3). [...] Charisma, affection, respect, love of neighbor, all that [...] (SA5). My voice is the vehicle for my light, my knowledge, happiness and sadness, anything I need to express goes through my voice [...] (SA11).</i>
• Identity	<i>[...] My voice shows I am very happy with what I do. (SA1). When I set my voice free, I show people who I am and what music is to me (SA8). My voice says I am a highly active person and extremely communicative, through my voice people realize I am very restless [...] (SA9). Through my voice I convey reality, interact with the public and attract more admirers (SA9).</i>
• Healthy vocal habits	<i>I take good care of my voice, I drink plenty of water [...] I always carry a bottle of water around to wet my throat and I also eat apples (AR1). I care for my voice with healthy eating habits and by monitoring my vocal tract temperature. I also use vocal warmup and cooling down techniques (SA3). I avoid drinking cold water and I take voice lessons (SA4). Firstly, I quit smoking. I drink plenty of water, I bought a sound equipment and now I use a microphone to sing [...] I don't like pushing my voice; if I'm pushing it too much I prefer not to work [...] (SA7). I do some warmups when I sing [...] (SA10). Well, I try not to drink cold water, I warm up and cool down my voice when singing (SA11).</i>
• Unhealthy vocal habits	<i>I don't care for my voice as I should on a daily basis (SA2). I talk, and talk, and talk, and I end up hoarse (SA6). When I sing in a higher tone I have to scream, especially because I work at the metro, and when I scream I get hoarse [...] (SA8). I am just too bad at that, I do nothing but make my voice worse with more tablets and food, and I also smoke [...] (SA9).</i>
• Professional orientation	<i>I never sought professional advice (SA1). There was no real professional help, but across the screen, on the internet [...] I feel as prepared and as competent as any other professional (SA3). I have seen a doctor and he explained to me how I should look after my voice [...] (AR4). I briefly studied some vocal techniques when I studied social communication [...] (SA7). I have had some singing lessons at the music conservatory (SA10). The guidance I had was sporadic, from my friends who already sing [...] (SA11).</i>
• Discomfort with the voice	<i>Nothing bothers me in my voice (SA1). There is nothing in my voice that disturbs me (SA3). Sometimes my voice gets tired faster, it becomes hoarse very fast, than I push it, things gets difficult and I get aphonic very fast (SA5). Sometimes I think I am hoarse, stammering and talking too fast [...] (SA6). As I am a little hoarse, I find it difficult singing falsetto or striking higher tones [...] (SA11).</i>

**Chart 2.** Impact of voice on people. Positive/negative

SUBCATEGORIES	EXCERPT FROM STREET ARTISTS' STATEMENTS
<ul style="list-style-type: none"> <li>• Expression of positive feelings</li> </ul>	<p><i>When we perform, we can see in people's smiles the joy that gets across [...] (AR1).</i>  <i>My voice brings a lot of good things, some people say it made their day just to hear me sing, they feel better, they were stressed and felt better (AR5).</i>  <i>I know my voice makes a difference in many people's lives, bringing them joy and cheer [...] (AR10).</i></p>
<ul style="list-style-type: none"> <li>• Discomfort</li> </ul>	<p><i>Sometimes people get disturbed due to the noise [...] (AR1).</i>  <i>Our voice can cause discomfort due to all the noise it makes in the metro [...] (AR7).</i>  <i>People may feel uncomfortable due to the noise, but they appreciate my voice and my performance nonetheless (AR8).</i></p>

*feel disturbed by the noise, but they still admire my voice and my work” (SA8) (Chart 2).*

## DISCUSSION

The value obtained as average VSS score is above the 16-point<sup>(10)</sup> limit, and a total of 14 individuals are above this value. In this group, the limitation subscale stands out with the highest VSS values, showing, therefore, there are vocal complaints relevant for street performers. These may involve difficulty of speaking in noisy places, feeling tired when speaking, voice changes across the day and voice loss at the end of the day, which are the most frequent issues reported by the group.

The VSS study ratified the existence of complaints by voice professionals. A recent survey with choir singers found a greater rate of vocal symptoms such as raucousness with secretion, hoarseness and cough with secretion, dry throat and mouth associated with the flu, intensive voice use, allergy and respiratory infection, which consequently interfered with subjects' voices<sup>(13)</sup>.

Average total VDI-10 protocol score was within expectations for people who had no complaints about their quality of life with respect to their voice. A study carried out with a popular singer revealed a high vocal disadvantage<sup>(14)</sup>. Special attention is required in addressing this issue with subjects, who may ignore the differences between a vocal disadvantage and otorhinolaryngological syndromes such as the flu, allergies or other affections, as well as a difficulty in using singing techniques.

It is a known fact that the work environment may be related with appearance of vocal symptoms and vocal changes<sup>(15)</sup>. This study records complaints from street artists regarding ambient and work conditions that expose them to situations of vocal risk, such as dusty or smoky environments, in addition to noise discomfort and poor acoustics.

Current studies connecting work environment and vocal disorders involve mostly groups of teachers, who stress that the major factor causing these vocal issues is intensive voice use in harmful environmental conditions, such as exposure to noise, dust and deficient acoustics<sup>(16-18)</sup>. In this respect, further studies with this population are needed to cast light on the relation between work environment and vocal disorders, since physical agents such as noise can't be controlled in their work environment.

Regarding microphone use, most professionals in this group do not use sound amplification devices. Microphone use has proven an efficient strategy favoring vocal comfort and longevity of voice professionals, besides being an alternative resource in the prevention of vocal changes<sup>(19-20)</sup>.

A noteworthy counterpoint is the great number of street artists who report vocal rests between performances. After prolonged use of their voice, these professionals need vocal rest to lower demand on their voice and relax their laryngeal musculature<sup>(21)</sup>.

Street performers speak of the professional role of their voice highlighting some categories. Regarding the importance of their voice, they reported it is of utmost importance for their activity, emphasizing that it is the basis for performing their work. Through their voice, they express emotions such as joy or situations experienced in everyday life. Besides that, they emphasize the connection between their voice and their personality, passing along information that identifies them and reveals their identity to the public. In a current study with voice professionals, they also report that it is important for their profession that communication with the public be natural and spontaneous, using attributes of their personality to get closer and attract attention in their communication with interlocutors<sup>(22)</sup>.

As for vocal care, previous knowledge of some elements socially acquired or conveyed by the media is identified. Many performers report never having sought professional guidance to care for their voice, while others mention looking for advice on social media.

Being acquainted with the work universe of this group, it is very important to offer these professionals good vocal health advice to alleviate the adverse effects of work conditions on their voice. Considering that these professionals do not have previous vocal training and that many perform in environments harmful to vocal health and are thus vulnerable to voice disorders, it is necessary to intensify vocal health promotion and education research and preventive action to care for the voice of this population<sup>(23)</sup>.

In the view of street artists, the impact of their voice on people shows the positive energy art communicates to the hearer, inducing a positive mental outlook. On the other hand, they are insightful enough to realize the discomfort to others caused by the noisy performances of artists in environments that may be already noisy, such as metro stations or city squares. This self-awareness shows this group's satisfaction with their

professional activity and their ever-present desire to please their public, using vocal psychodynamics to involve interlocutors<sup>(24)</sup>.

## CONCLUSION

The study found that there are vocal complaints among the street performers population. Most outstanding are situations that bring vocal risks to the artists, such as noise, dust, poor acoustics and absence of sound amplification. However, further research is needed to evaluate this perspective. Quality of life in this group can be classified as normal.

The role of the voice for the group studied is related to their professional activity and relationship with their public, besides personal and professional satisfaction.

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## Author contributions

*MKS: Article writing, data collection and analysis. ANBA: Orientation for improvement, data analysis and revision of the text. JAL: Orientation for improvement and text revision. ZSL: Orientation for improvement and text revision. CMBN: Data analysis and text revision.*