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Professional theatre actors: environmental and socio-occupational use of voice

Atores profissionais de teatro: aspectos ambientais e sócio-ocupacionais do uso da voz

ABSTRACT

Purpose: To investigate the occurrence of vocal complaints and symptoms among professional theatre actors, and its relationship with environmental aspects of this professional activity and with the history of specialized intervention. **Methods:** Cross-sectional study with 48 professional actors who answered a questionnaire regarding vocal and extra-vocal complaints, as well as environmental aspects, habits and demands related to their professional activity in the theatre. A specific previously structured protocol (PROTEA) was used for this purpose. **Results:** Previous history of acting vocal training was reported by 40 (83.3%) subjects. The most used resources were vocal warming, hydrating therapy, and alternative methods. Vocal difficulties in day-to-day demands were reported by 14 (35.0%) subjects, and eight (16.7%) of them noticed these difficulties since the beginning of their career. During performances, 14 (29.2%) reported difficulties coordinating breathing and speaking. All actors interviewed consider vocal health important for theatre acting. Most actors denied difficulties regarding vocal projection, breathing and/or articulation of words in scene. However, the Italian stage seems to be more related to difficulties coordinating breathing and speaking than the arena theater ($p=0.00$). **Conclusion:** In spite of professional actors who have a history of training and orientation regarding the use of professional voice, a significant portion of them have complaints related to professional voice use, especially associated to the environment conditions at work.

RESUMO

Objetivo: Verificar a ocorrência de queixas e sintomas vocais em atores profissionais de teatro e sua relação com aspectos ambientais desta atividade laboral e com o histórico de intervenções especializadas. **Métodos:** Estudo transversal com 48 atores profissionais realizada a partir de questionário sobre sintomas e queixas vocais e extra-vocais, bem como aspectos ambientais, hábitos e demandas relacionados ao trabalho de ator de teatro. Foi utilizado protocolo padronizado específico previamente estruturado (PROTEA). **Resultados:** O histórico de treinamento vocal para atuar foi referido por 40 (83,3%) entrevistados. Os recursos mais utilizados foram aquecimento vocal, hidratação e métodos alternativos. Dificuldades para a manutenção da qualidade vocal nas demandas do dia-a-dia foram referidas por 14 (35,0%) sujeitos, sendo que oito (16,7%) as percebem desde o início da carreira. Durante a atuação, 14 (29,2%) referem dificuldades de coordenação entre fala e respiração. Todos os entrevistados consideraram que a saúde vocal é importante para o ator de teatro. A maioria dos atores negou dificuldades quanto à projeção vocal, respiração e/ou articulação das palavras em cena. Entretanto, o palco italiano parece estar mais relacionado que o teatro de arena com dificuldades de coordenação pneumofonatória ($p=0,00$). **Conclusão:** Em que se pese que atores profissionais têm histórico de treinamento e orientação para a utilização da voz profissional, há porção significativa destes com queixas em relação ao uso profissional da voz, especialmente relacionadas a condições físicas presentes no ambiente de trabalho.

Study conducted at Universidade Feevale, Novo Hamburgo (RS), Brazil, and at Universidade Federal do Rio Grande do Sul – UFRGS, Porto Alegre (RS), Brazil.

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INTRODUCTION

Since ancient times, theater has been part of our culture. In addition to the body expression and featuring of the characters, voice is an important working tool of the theatrical actor⁽¹⁻³⁾. However, the teamwork energies are usually focused on history, personality and features of the character. The vocal characterization associated with the maintenance of vocal health of the actor still seems secondary to the body work developed in scene.

The period of preparation of the plays is characterized by intense rehearsal routines that require excessive vocal use⁽²⁻⁷⁾. The performance routine is equally intense and a phonatory pattern that properly features the character is necessary^(2,3). These aspects need to be considered in planning and implementing effective actions to maintain an adequate voice quality in order to meet the communication demands of these professionals⁽¹⁻⁷⁾. Thus, the mapping of symptoms, vocal complaints and environmental impacts inherent to the activities of the theatrical actor are important for the development of more direct and effective actions regarding the specialized intervention⁽²⁻¹²⁾.

This study aimed to verify the occurrence of vocal symptoms and complaints in professional theater actors as well as their relation to environmental aspects of the activity and history of specialized interventions.

METHODS

The study was reviewed and approved by the Ethics Committee of Feevale, under protocol number 4.07.03.06.470. All subjects signed an informed consent (IC), as described in the resolution 196/96 of the National Health Council.

Study participants were professional actors of theater groups in the city of Porto Alegre (RS), Brazil. Among the 50 subjects who were eligible for the study, 48 were interviewed, of whom 26 (54.2%) were male and 22 (45.8%) were female. The two excluded subjects (4.0%) had no willingness to answer the questions of the study interview.

The age of participants ranged from 20 to 50 years (mean age of 34 years, SD=10). The educational level of participants ranged between zero and 23 years of study, with an average of 13 years (SD=6.3). As for professional training, 28 (58.3%) reported receiving education in a different field. Half of participants (n=24) exhibits an extensive demand of voice use in another occupation - in a total of 30 (62.5%) that have activities other than theatrical.

Data from subjects were collected in the database of the organizer of the theater project, prior consent from the management entity of the project. The inclusion criteria were: participation in plays of the summer project of Gaucho Theater which occurred during data collection, and agreement to participate in the study. Only were excluded from the study those actors who would not consent to participate in or could not answer the questionnaire.

The actors went through individual interviews, following the script of a structured and previously validated protocol (PROTEA – Interview with Actors Protocol) from the pilot study (Appendix 1). PROTEA included questions about

training and performance in other areas; habits directly or indirectly related to voice; history of vocal health; history and professional training in theater; and impressions about acting and vocal effects.

The frequencies of the variables and their distribution were verified. Measures of association (Chi-square, prevalence ratio or Fisher's exact test, as appropriate) were also applied. The significance level was set at 95%.

RESULTS

There was no difference in the association between gender and self-reported vocal problems ($p=0.18$), as well as between the co-occurrence of other professional activities that require use of voice and self-reported vocal difficulties ($p=0.29$).

Regarding the use of tobacco, 21 (43.8%) subjects reported being smokers; one (2.1%) subject reported use of cocaine; 14 (29.2%) reported regular use of marijuana; 35 (72.9%) reported use of alcohol and 15 (31.3%) reported use of some type of continuous medication. The results show the relationship between the use of chemicals and vocal difficulties perceived by the interviewees on the day to day (Table 1).

Table 1. Relationship between the use of chemicals and voice disorders self-reported on daily activities

Substance	Reference to voice disorders		
	n	%	p-value
Cigarettes	21	43.7	0.61
Marijuana	14	29.1	1.0
Liquor	35	72.9	0.14
Continuous medication use	15	31.2	0.07

Fisher Exact Test ($p \leq 0.05$)

Data regarding the professionals searched by the actors to improve or maintain vocal health were obtained (Table 2). The vocal difficulty in daily activities showed no difference when compared to the search for preventive monitoring for promoting vocal health ($p=0.75$).

The resources used by participants to prevent voice disorders and/or maintenance of vocal health were raised (Table 3). Association between knowledge from previous contact and use of vocal techniques related to theatrical work and "healthy" auto-perception of voice ($p=0.02$) was observed.

Among the 14 actors who reported difficulties using their voice to the routine demands, eight (16.7%) reported that these difficulties have been perceived since the beginning of their careers. The relationship between everyday vocal difficulty and self-perceived voice quality as "good, adequate, adapted" was not statistically significant ($p=0.44$). The auto-perception of participants on vocal health and the perception (and mention) from third parties on possible vocal alterations also indicated no significant difference ($p=0.22$).

Of the total participants, 32 (66.7%) reported not having undergone any previous vocal assessment. Of these, 26 (81%) had never been submitted to otorhinolaryngologic assessment.

Table 2. Distribution of data regarding the history of professional supervision to maintain vocal health

Voice disorders prevention	Frequency (n)	Relative frequency (%)	Cumulative frequency (%)	95% CI
Speech-Language Pathologist	2	5.0	5.0	0.6 – 16.9
Speech-Language Pathologist and vocal coach	1	2.5	7.5	0.1 – 13.2
Speech-Language Pathologist and singing teacher	1	2.5	10.0	0.1 – 13.2
Speech-Language Pathologist and theater director	1	2.5	12.5	0.1 – 13.2
Vocal coach	5	12.5	25.0	4.2 – 26.8
Vocal coach and singing teacher	9	22.5	47.5	10.8 – 38.5
Vocal coach and director	2	5.0	52.5	0.6 – 16.9
Singing teacher	6	15.0	67.5	5.7 – 29.8
Singing teacher and director	1	2.5	70.0	0.1 – 13.2
Director	3	7.5	77.5	1.6 – 20.4
Without monitoring	9	22.5	100.0	10.8 – 38.5
Total*	40	100.0	100.0	-

* possibility of multiple responses to each of the 18 actors with a history of vocal accompaniment

Note: CI = confidence interval

Table 3. Distribution of data on resources used by actors for the prevention of dysphonia and/or discomfort during phonation

Resources	Frequency (n)	Relative frequency (%)	Cumulative frequency (%)	95% CI
Vocal warm-up, drinking water and alternative methods	8	33.3	100	15.6 – 55.3
Vocal rest, warm-up and drinking water	7	29.2	29.2	12.6 – 51.1
Vocal rest, warm-up, drinking water and alternative methods	3	12.5	50.0	2.7 – 32.4
Vocal rest, warm-up, drinking water and vocal cool-down	2	8.3	37.5	1.0 – 27.0
Vocal rest, vocal warm-up and cool-down	1	4.2	54.2	0.1 – 21.1
Vocal rest, warm-up, cool-down and other	1	4.2	58.3	0.1 – 21.1
Vocal warm-up, drinking water and vocal cool-down	1	4.2	62.5	0.1 – 21.1
Vocal warm-up, drinking water, vocal cool-down and alternative methods	1	4.2	66.7	0.1 – 21.1

Note: CI = confidence interval

Comparative analysis of the types of monitoring or intervention to which the participants have already been submitted for the prevention of vocal disorders and/or occurrence of vocal discomfort during the theatrical performance was carried out (Table 4).

The length of time in theater acting was 11 years or more for 27 (56.3%) participants and 18 (38.3%) of them have worked from four to six years with the group. The average duration of the rehearsals is 3.3 hours per day (SD=1.4), without regular intervals.

The Italian stage and the central stage theaters are the environments in which most participants develop their artistic

activities. Of the 48 participants, 47 (97.9%) believe that the type of stage influences the quality of the vocal emission of the actor.

There was a difference in the relationship between stage type and self-reported pneumophonic coordination difficulties ($p=0.00$), indicating that the type of stage possibly influences the occurrence of vocal difficulties during the performance.

Vocal projection difficulties were highlighted by ten (20.8%) actors. Nine (18.8%) reported difficulties in articulation and 14 (29.2%) reported difficulties in breathing and speaking coordination during the performance.

No differences were obtained when relating the difficulties

Table 4. Relationship between type of training sought for the maintenance and/or recovery of vocal health and perception of improvement of complaints/vocal symptoms

Professional sought for maintenance and/or recovery of vocal health*	Improvement of self-reported vocal symptoms/complaints			Total n (%)
	No n (%)	Yes n (%)	Not applicable n (%)	
Speech-Language Pathologist	0 (0)	5 (4)	12 (9.6)	17 (13.6)
Vocal coach	0 (0)	17 (13.6)	21 (16.8)	38 (30.4)
Singing professor	0 (0)	15 (12)	22 (17.6)	37 (29.6)
Director	0 (0)	7 (5.6)	14 (11.2)	21 (16.8)
No specialized treatment	2 (1.6)	1 (0.8)	9 (7.2)	12 (9.6)
Total	2 (1.6)	45 (36)	78 (62.4)	125 (100.0)

* Among the study subjects, 12 (9.6%) did not seek any kind of professional guidance for maintenance and/or recovery of vocal health

of articulation and breathing during the acting performance ($p=0.42$) or between difficulty to articulate and difficulty of vocal projection during the performance ($p=0.08$). Among the 48 participants, 25 (52.1%) have had their vocal difficulties or alterations pointed out by others.

The results also show that almost all the interviewed actors ($n=46$, 97.9%) judged that the body movements performed in scene influence the quality of vocal emission during the performance. All professionals reported that the vocal health of the actor is important or essential in carrying out their activities. However, for 30 (69.8%) participants, the main concern during performance is to know the character and to own its features.

DISCUSSION

Four processes contribute to speech production: the folding mechanism using air from the lungs, the sound generation at the glottis through the vocal fold vibration, the resonance and sound articulation. There are considerable differences between voice produced in colloquial speech and voice produced for the performing arts^(4,7,12).

In this study, most participants referred alcohol use, and not tobacco or continuous drugs. This way, such agents may not contribute to the vocal complaints and reported problems in this group. The literature states that the chemical substances linked to cigarette smoking and illicit drugs are aggressors to the vocal and respiratory tract and may cause damages to the professional use of voice^(7,9). In addition, the continuous use of some types of drugs has potential impact on voice quality⁽⁹⁾.

Alternative methods such as the use of sprays, tablets and floral resources for instant improvement in voice quality were mentioned by almost half of participants. It should be noted that the vocal hygiene care, although widely reported in the literature, still has weak evidence of effectiveness. However, it can be important allies in a more comprehensive speech rehabilitation improvement and/or rehabilitation program^(9,13). Hydration is an important aspect for the promotion and maintenance of organic and functional healthy of the larynx, mainly applied to individuals who professionally use their voice^(9,14,15). Maintaining adequate hydration is very important for vocal performance, especially for professionals who use this instrument at work.

Among the participants, only 5% underwent follow-up assessments to prevent vocal problems with a Speech Therapist. The opportunity to broaden participation of the Speech Therapist in multidisciplinary team is highlighted, especially for the prevention of vocal wear and consequent loss of vocal health.

The non-significant results found on the comparison between the perception of participants regarding their vocal health and the mention of third parties about their change in voice quality should be highlighted, especially given the nature of the intense vocal use made by the actors. Considering the discrepancy between the perceptions of the actor about his vocal limitations compared to the perceptions of others, it is important that the actor becomes able to more accurately identify changes in his own voice. This will enable the search for specific treatments at short notice, reducing the risk of complications and consequent restriction of possibilities of

voice use in featuring the characters.

Actors who reported changes or difficulties with speech, although not receiving specialized professional supervision, realize that their voice quality is becoming poorer. Thus, Speech Therapist action along this segment of professionals can be focused on maximizing the vocal potential and, when necessary, on reducing symptoms related to inefficient or inappropriate use of vocal potential.

Complaints regarding the pneumophonic adaptation were quite prevalent in this population, confirming data from other studies⁽⁵⁻⁷⁾. This result points to the need for predictability of training and/or monitoring of vocal health from initial production and rehearsal of the plays, extended to the complete group of actors in a theater company, in order to maximize the potential use of vocal ability in the featuring of characters. This aspect was raised in a previous study⁽⁸⁾, which mentioned the demand for Speech Therapy for vocal health promotion upon the occurrence of long hours of voice use with conditions potentially hazardous to vocal health repeated over the years.

For the proper transmission of the message to the public, it is important that the actors have precise articulation, enough vocal projection and voice quality consistent with the features of the character. Moreover, it is important to control the air flow during the performance because the intervals (breaks) that interspersed the phonatory periods with breathing during speech dialogues are one of the altered parameters front situations with emotional impact⁽¹⁶⁻¹⁸⁾. The most common alteration refers to the rhythm of inspiration/expiration^(16,17,19).

Thus, we can detect the importance of the harmonic use of vocal projection, articulation and breathing so that the text is understood by the public. The literature states that breathing should be practiced in a relaxed way, without unnecessary stiffness or muscle contraction^(7,11,18).

Most participants mentioned that knowing and appropriating the character is imperative in theatrical performance and all participants reported that voice quality of the theatrical actor is important. Among those with the professional use of voice, the theatrical actors receive little attention as their performance seems more focused on the art of acting. However, this issue should be studied because the voice is of great importance in the role of a character representation^(11,12). In addition, the priority in the work of vocal health should consider the welfare of the actor whenever possible, aiming to improve the quality of life of the actor and of the public⁽²⁰⁾. Studies have highlighted quality of life as a central analytical category to promote integrative and interdisciplinary approaches^(20,21).

It was observed that the prevalence of complaints related to voice during the performance is higher than that occurring in daily activities. This observed difference is probably due to demands on the phonatory system in the theater speech, which require more power and more complex adaptations to the vocal production compared to the demand required in voice conversations with small groups during routine activities. Moreover, the interviewed population has overlapping vocal demands, as besides acting they perform other activities that require significant use of voice.

The theatrical actors are faced with demands for vocal adap-

tations that feature each character and that suit every type of stage^(3,11,12). The actors reported no vocal projection difficulties when using Italian stage. This is noteworthy since the majority of participants agree that the type of stage influences the voice of the actors. The Italian stage is the type of stage characteristic of European theaters existing since the seventeenth century. It is a rectangular stage, in which the relationship between actors and spectators is always front and offers visibility and acoustics close to perfection⁽¹⁶⁾. The arena was founded by young students graduated by the first class of the School of Dramatic Art (EAD) of São Paulo and had this name given the choice of stage type⁽¹⁷⁾. The arena stage exists since the twentieth century and it may be circular, with the audience occupying the whole area around the stage, or rectangular, with the audience seated on three or four of its sides⁽¹⁶⁾. By professionally using voice, actors compete with ambient noise and thus, tend to increase vocal intensity and make greater effort to speech^(3,13,22).

Possibly the overlap of activities that require use of voice, combined with individual characteristics that undermine the use of the vocal tract such as rhinitis, sinusitis, allergies and environmental factors, are important factors for the occurrence of perceived difficulties for the required use of a voice in theatrical performance. Thus, although the results have not been significant in detecting difficulties and specific vocal effects, several authors have reported that professionals who use their voice as a means of work require special attention, especially in relation to vocal overuse and abuse^(9,11,12,18,19).

CONCLUSION

The vocal quality of theatrical actor is important to the success of the scenic work. Although complaints about the pneumophonic adaptation are quite prevalent in this population, the prevention of vocal disorders assisted by a Speech Therapist is unusual.

While most actors face intense activities related to the use of voice in the theater, only a small portion refers vocal difficulty during everyday activities. In addition, vocal habits that potentially affect vocal health do not seem to contribute to the vocal complaints and difficulties faced by actors who report vocal complaints, although some workplace conditions seem to bring some degree of damage to the vocal performance.

REFERENCES

1. Titze IR, Lemke J, Montequin D. Populations in the U.S. workforce who rely on voice as a primary tool of trade: a preliminary report. *J Voice*. 1997;11(3):254-9.
2. Novak A, Dlouha O, Capkova B, Vohradnik M. Voice fatigue after theater performance in actors. *Folia Phoniatr (Basel)*. 1991;43(2):74-8.
3. Walzak P, McCabe P, Madill C, Sheard C. Acoustic changes in student actors' voices after 12 months of training. *J Voice*. 2008;22(3):300-13.
4. Nemetz MA, Pontes PA, Vieira VP, Yazaki RK. Configuração das pregas vestibulares à fonação em adultos com e sem disfonia. *Rev Bras Otorrinolaringol* 2005;71(1):6-12.
5. Fortes FS, Imamura R, Tsuji DH, Sennes, LU. Perfil dos profissionais da voz com queixas vocais atendidos em um centro terciário de saúde. *Rev Bras Otorrinolaringol*. 2007;73(1):27-31.
6. Aydos B, Hanayama EM. Técnicas de aquecimento vocal utilizadas por professores de teatro. *Rev CEFAC*. 2004;6(1):83-8.
7. Zeine L, Waltar KL. The voice and its care: survey findings from actors' perspectives. *J Voice*. 2002;16(2):229-43.
8. Grillo MH, Penteado RZ. Impacto da voz na qualidade de vida de professore(a)s do ensino fundamental. *Pró-Fono*. 2005;17(3):311-20.
9. Behlau M, Oliveira G. Vocal hygiene for the voice professional. *Curr Opin Otolaryngol Head Neck Surg*. 2009;17(3):149-54.
10. Ortiz E, Costa EA, Spina AL, Crespo AN. Proposta de modelo de atendimento multidisciplinar para disfonias relacionadas ao trabalho: estudo preliminar. *Rev Bras Otorrinolaringol*. 2004;70(5):590-6.
11. Pinczower R, Oates J. Vocal projection in actors: the long-term average spectral features that distinguish comfortable acting voice from voicing with maximal projection in male actors. *J Voice*. 2005;19(3):440-53.
12. Zeine L, Waltar KL. The voice and its care: survey findings from actors' perspectives. *J Voice*. 2002;16(2):229-43.
13. Pedersen M, Beranova A, Møller S. Dysphonia: medical treatment and a medical voice hygiene advice approach. A prospective randomised pilot study. *Eur Arch Otorhinolaryngol*. 2004;261(6):312-5.
14. Brasolotto A, Fabiano S. Efeitos da hidratação na voz de um grupo de professores universitários. *Pró-Fono*. 2000;12(1):56-9.
15. Fujita R, Ferreira AE, Sarkovas C. Avaliação videoquimográfica da vibração de pregas vocais no pré e pós hidratação. *Rev Bras Otorrinolaringol*. 2004;70(6):742-6.
16. Vasconcellos LP. *Dicionário de teatro*. São Paulo: L&PM; 1987. p.184-203.
17. Patriota R. A escrita da história do teatro no Brasil: questões temáticas e aspectos metodológicos. *História*. 2005;24(2):79-110.
18. Oliveira CM, Pinho SM, Ferreira V. A relação entre música e fonoaudiologia, com ênfase no estilo gospel. *J Bras Fonoaudiol*. 2001;3(9):271-7.
19. Behlau M. Voz profissional: aspectos gerais e atuação fonoaudiológica. In: Behlau M, Feijó D, Madazio G, Rehder MI, Azevedo R, Ferreira AE. *Voz: o livro do especialista*. Vol. 2. Rio de Janeiro: Revinter; 2005. p. 287-407.
20. Spina AL, Maunsell R, Sândalo K, Gusmão R, Crespo AL. Correlação da qualidade de vida e voz com atividade profissional. *Rev Bras Otorrinolaringol*. 2009;75(2):275-9.
21. Penteado RZ, Bicudo Pereira IM. Qualidade de vida e saúde vocal de professores. *Rev Saúde Pública*. 2007;41(2):236-43.
22. Villanueva-Reyes A. Voice disorders in the Metropolitan Area of San Juan, Puerto Rico: profiles of occupational groups. *J Voice*. 2011;25(1):83-7.

Appendix 1. Interview with actors protocol (PROTEA)

ID# on the study:

Identification

Gender: (1) male (2) female

Age: _____ years

Schooling: _____ complete years of study

Professional training and work in other areas

Do you have professional training in another area?

(1) No (2) Yes

Do you have another occupation besides acting?

(1) No (2) Yes

This (other) activity demands intensive use of voice?

(1) No (2) Yes

Habits

Do you smoke?

(1) No (2) Yes

Do you use cocaine?

(1) No (2) Yes

Do you use marijuana?

(1) No (2) Yes

Do you drink alcohol?

(1) No (2) Yes

Do you use any kind of medication?

(1) No (2) Yes

Vocal health history

Do you take or have ever taken any prevention measures regarding your vocal health?

(1) SLP (2) vocal coach (3) singing teacher (4) director (5) no

Which measures? (1) vocal rest (2) vocal warm-up (3) drinking water

(4) vocal cool-down (5) alternative methods (mints, ginger) (6) others.

Do you use any kind of vocal technique when acting?

(1) No (2) Yes

Oriented by:

(1) SLP (2) vocal coach (3) singing teacher (4) director (5) friends

(6) others

Do you have any vocal difficulties in your daily life?

(1) No (2) Yes

And when you're acting?

(1) No (2) Yes

Were these difficulties noted since the beginning of your professional use of voice?

(1) No (2) Yes

Do you still have these difficulties?

(1) No (2) Yes (3) Does not apply

Have these difficulties been getting worse?

(1) No (2) Yes (3) Does not apply

Have you ever undergone otorhinolaryngologic assessment?

(1) No (2) Yes

Have you ever undergone a vocal assessment?

(1) No (2) Yes

Professional history

For how long have you been a theatre actor?

(1) 1-3 years (2) 4-6 years (3) 7-10 years (4) 11 years or more

For how long have you been in this group?

(1) 1-3 years (2) 4-6 years (3) 7-10 years (4) 11 years or more

How long are the rehearsals? (hours/day) _____.

What kind of theatre does this group preferentially use?

(1) Arena (2) Street theatre (3) Italian stage (4) Others

Impressions on acting and vocal repercussions

Do you think the kind of stage has an impact on the actor's voice?

(1) No (2) Yes

Do you think you have a good, healthy, normal voice?

(1) No (2) Yes

Do you have difficulties projecting your voice on stage?

(1) No (2) Yes

Do you have difficulties regarding the articulation of words on stage?

(1) No (2) Yes

Do you have difficulties regarding breathing while acting?

(1) No (2) Yes

Have others ever pointed out any alteration or difficulty regarding your voice?

(1) No (2) Yes

Do you think vocal quality is important for an actor?

(1) No (2) Yes

What is the main concern of an actor when playing a character?

(1) Costumes (2) Getting to know the character and appropriating it

(3) The character's voice (4) Makeup (5) Others

Do you think body movements influence vocal issues?

(1) No (2) Yes