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Tinnitus prevalence in the city of São Paulo ☆,☆☆



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KEYWORDS

Tinnitus;
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Abstract

Introduction: The public and private health care in the city of São Paulo has no data on tinnitus prevalence.

Objective: Determine tinnitus prevalence in São Paulo city.

Study design: Series study.

Methods: Cross-sectional study by field questionnaire with 1960 interviews. Predictor variables included gender, age, tinnitus.

Results: The prevalence of tinnitus was 22%. It affects more women (26%) than men (17%) and increases with advancing age. Approximately one third of cases (32%) assert that they have constant tinnitus (*i.e.*, “ringing”), while most describe intermittent tinnitus (68%). The majority (64%) reported feeling annoyed, while others (36%) denied any annoyance. Among women, the occurrence of an annoying tinnitus was significantly higher (73%) than among men (50%). The percentages were: mildly annoying (11%), moderately annoying (55%), and severely annoying (34%). Tinnitus interferes with daily activities in 18% of those reporting to be annoyed.

Conclusion: The population in the city of São Paulo suffering from tinnitus was more prevalent than previously estimated. Generally, it affects more women and those without occupation, and increases significantly with age. Most respondents described the tinnitus as annoying, and this was more prevalent in females. The degree of discomfort measured by a Visual Analogue Scale showed moderate tinnitus, with responses averaging 6.3.

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PALAVRAS-CHAVE

Epidemiologia;
Prevalência;
Zumbido

Prevalência do zumbido na cidade de São Paulo**Resumo**

Introdução: As redes pública e privada de saúde na cidade de São Paulo não possuem dados sobre a prevalência de zumbido.

Objetivo: Determinar a prevalência do zumbido na população paulistana.

Desenho do estudo: Estudo de Série.

Método: Estudo transversal por questionário de campo totalizando 1960 entrevistas.

Resultados: A prevalência de zumbido observada foi de 22%. Acomete mais mulheres (26%) do que homens (17%). Observou-se crescimento progressivo da prevalência com o aumento da idade. Cerca de 1/3 dos casos (32%) têm zumbido constante, enquanto a maioria refere zumbido intermitente (68%). A maioria (64%) declarou se sentir incomodada, os demais (36%) negaram qualquer incômodo; neste quesito o percentual de mulheres foi significativamente maior (73%) que o de homens (50%). Os percentuais observados foram: incômodo leve (11%), incômodo moderado (55%), e incômodo severo (34%). O zumbido interfere nas atividades diárias em 18% dos sujeitos.

Conclusão: O zumbido na cidade de São Paulo mostrou-se mais prevalente do que o previamente estimado. Acometem mais frequentemente mulheres e indivíduos sem ocupação, aumentando significativamente com a idade. A maioria refere se incomodar com o zumbido, sendo a queixa mais prevalente nas mulheres. O incômodo médio aferido pela escala visual analógica apontou zumbido moderado com nota de 6,3.

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Introduction

Tinnitus is a common symptom in ENT outpatient clinics and can be defined as the perception of sound in the absence of any external sound stimulus. The presence of tinnitus may indicate that something is wrong somewhere in the auditory system. This symptom can also be the result of a number of health conditions, such as noise-induced hearing loss, acoustic trauma, presbycusis, metabolic disorders, use of medication, ear infections, somatosensory impairment and/or chronic co-morbidities. It may also be present in individuals with normal hearing.¹

Despite its high prevalence, in Brazil and in São Paulo there are no epidemiologic studies of the general population to determine the frequency of tinnitus. Estimates of the prevalence of tinnitus vary among different existing epidemiological studies; but previously published results indicate a frequency of approximately 10–15% of the general adult population.^{2–8} The difficulties in conducting this type of study and the source of uncertainty in epidemiological studies are based on two key facts: tinnitus severity can only be assessed by the patient, and there is no objective measure for the symptom.⁹

According to the literature, most individuals with tinnitus are not bothered by the symptom, with only 25% of those seeking professional help.¹⁰ The degree of discomfort with the symptom often varies over time; and a small but significant number of patients report that tinnitus interferes directly in their daily activities, causes changes in quality of life and substantial changes in behavior, including anxiety, frustration, irritability, depression and sleep disorders.¹¹ In 1–2% of cases, tinnitus is bothersome enough to significantly affect daily activities.¹²

It is known that the prevalence of tinnitus is directly related to age and hearing loss;¹² however, the exposure to noise is also a well established and known risk factor, and one of the most common causes of tinnitus. Urban centers like São Paulo emerge as a concentration point for daily exposure to noise and environmental noise pollution. As examples, consider the excessive land and air traffic, overcrowded public spaces, shows, concerts and outdoor recreational activities, sports activities, and even the noise stemming from domestic leisure and safety equipment and household appliances. The expectation is that the prevalence of tinnitus will increase in the future, not only among adults and the elderly, as a consequence of increased longevity and chronic comorbidities; but also among teenagers and children, because of the greater noise exposure in schools, leisure environments, and in particular by the misuse of personal music listening devices. Therefore, it is reasonable to infer that auditory clinical complaints, such as tinnitus, should emerge as a public health problem.

According to the latest census of the IBGE (Instituto Brasileiro de Geografia e Estatística), 2010, the city of São Paulo has a population of 11,253,503 inhabitants, with a birth rate of 15.59/1000.¹³ The elderly represent 12.5% of the population and illiterate persons 3.1%. The city of São Paulo has a *per capita* annual income of R\$ 39,445.20 and 58.4% of the population concluded secondary education. These socio-demographic characteristics of the city of São Paulo reveal a profile that is similar to that observed in most European countries. Demographic changes especially a decline in fertility and an increase in years of survival directly influences the age composition of the population, and we have witnessed a transfer of responsibility for the economic maintenance of the elderly.

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