



AURICULOTHERAPY: MENTAL HEALTH CARE TOOL

AURICULOTERAPIA: FERRAMENTA DE CUIDADO EM SAÚDE MENTAL AURICULOTERAPIA: HERRAMIENTA PARA EL CUIDADO DE LA SALUD MENTAL

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ABSTRACT

Objective: To understand the impacts of using auriculotherapy in mental health care. Methods: An integrative review was carried out in the LILACS, Medline/Pubmed and SciELO databases, with the descriptors "Auriculotherapy", "Complementary Therapies" and "Mental Health", from December 2023 to February 2024. Results: Among the 302 articles found in the databases, eight articles met the search criteria and were included in the review. The positive impact of auriculotherapy on reducing symptoms of anxiety, stress, and hyperactivity was evidenced, as well as improving mood and reducing the number of cigarettes consumed. Final Considerations: This study allowed us to visualize the positive impacts of auriculotherapy on mental disorders, encouraging its use in this setting to complement the treatment of patients. However, we emphasize the need for more studies in the area, especially longitudinal ones, in order to overcome the methodological barriers to generalizing the results. **Keywords:** Auriculotherapy; Complementary Therapies; Mental Health.

RESUMO

Objetivo: Identificar na literatura científica os impactos da utilização da auriculoterapia no cuidado à saúde mental. Métodos: Foi realizada uma revisão integrativa nas bases de dados LILACS, Medline/Pubmed e SciELO, com os descritores "Auriculoterapia", "Terapias Complementares" e "Saúde Mental", em português e inglês, no período de dezembro de 2023 a fevereiro de 2024. Resultados: Dentre 302 estudos encontrados nas bases de dados, oito artigos atenderam aos critérios de elegibilidade, sendo incluídos na revisão. Evidenciou-se o impacto positivo da auriculoterapia na redução de sintomas de ansiedade, estresse e hiperatividade, além de melhora do humor e redução do número de cigarros consumidos. Considerações Finais: Este estudo permitiu visualizar os impactos positivos da auriculoterapia nos transtornos mentais, fomentando sua utilização nesse cenário para complementar o tratamento dos pacientes. Entretanto, ressalta-se a necessidade de novos estudos na área, principalmente os de caráter longitudinal, a fim de superar as barreiras metodológicas para generalização dos resultados.

Descritores: Auriculoterapia; Terapias Complementares; Saúde Mental.

RESUMEN

Objetivo: Comprender los impactos de la auriculoterapia en la salud mental. Métodos: Se realizó una revisión integrativa en las bases de datos LILACS, Medline/Pubmed y SciELO con los descriptores "Auriculoterapia", "Terapias Complementarias" y "Salud Mental", de diciembre de 2023 a febrero de 2024. Resultados: Entre los 302 artículos encontrados em las bases de datos, ocho artículos cumplieron con los criterios de elegibilidade y fueron incluídos en la revisión. Se evidenció el impacto positivo de la auriculoterapia en la reducción de síntomas de ansiedad, estrés e hiperactividad, además de mejorar el estado de ánimo y reducir el consumo de cigarrillos. Consideraciones finales: Este estudio permitió visualizar los impactos positivos de la auriculoterapia en los trastornos mentales, incentivando su uso como complemento en el tratamiento del paciente. Sin embargo, se destaca la necesidad de más estudios en el área, especialmente de carácter longitudinal, para superar barreras metodológicas y generalizar los resultados.

Descriptores: Auriculoterapia; Terapias Complementarias; Salud Mental.

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INTRODUCTION

Auriculotherapy was developed in the twentieth century by the French physician Paul Nogier, who suggested that the presence of nerve branches in the pinna allowed the stimulation of points in the ear region to work for the treatment of diseases¹.

Another term used to refer to this technique is auriculopuncture, a branch of this ancient Chinese health care technique that uses the pinna microsystem to work on physical issues, such as pain, and emotional issues, such as anxiety and sadness, through the application of materials such as crystal, gold, and silver spheres; mustard seeds; semipermanent needles and acupuncture needles, stimulating the acupuncture meridians in order to balance vital energy, called Qi¹.

The World Health Organization $(WHO)^2$ defines health as the state of physical, mental and social well-being and not only the absence of diseases, while the Brazilian Constitution of 1988 considers it to be the result of determinant and conditioning factors of health. Over time, these definitions have been discussed and expanded, generating a reflection on the use of different care tools to achieve health, from the most traditional to the least known techniques, as long as they provide proven benefits to patients³.

Within this context, one of the tools used for this care is the Integrative and Complementary Practices in Health (PICS), inserted in the health system from the National Policy of Integrative and Complementary Practices (PNPICS), instituted in 2006. The ICTs include techniques that are different from those that make up the biomedical model of care and can be used at different levels of complexity of health care and encourage individuals to participate in their self-care⁴.

This modality of care has the proposal to complement the current care model, using diverse knowledge and low-cost techniques and working on the integral and holistic view of individuals, one of these techniques being auriculotherapy.

The performance of auriculotherapy in emotional issues makes it possible to apply it in the context of mental health, an area with several particularities and than It needs special attention because it deals with essential issues to provide the well-being of the population.

However, it is important to recognize that an individual evaluation is necessary for the use of the technique, considering the risks and contraindications, such as the application of some auriculotherapy points in pregnant women, especially in the first 3 months of pregnancy, due to the risk of miscarriage due to the stimulation of uterine contractions, as well as its use in patients with psychomotor agitation, which first demand the stabilization of the condition.

Evidence highlights that the use of auriculotherapy, with and without a protocol, is capable of reducing 27 and 32% of the nursing team's stress, respectively⁶. However, even with the recognition of PICS by the Unified Health System (SUS) and successful experiences in their insertion in services, knowledge of these practices is still not widespread because they are not essentially part of the hegemonic model of care.

In addition, when reporting the implementation of a training course in auriculotherapy, researchers pointed out two main challenges that contribute to the lack of legitimacy in the implementation of the techniques contemplated by the PICS: the lack of knowledge on the part of the professionals, evidenced by the dialogue with the students of the course, who demonstrated difficulties in understanding the dynamics of auriculotherapy because they were used to treating health conditions based on diseases; and the lack of content inserted in professional training that addresses the theme⁷.

Thus, auriculotherapy, which could be used to enhance the treatment of mental health issues in health units, is present in a small number of establishments, which reduces the potential reach of this care tool, with the lack of incentive for the training of health professionals and the lack of conditions for this technique to be effective as obstacles.

Thus, considering the underuse of auriculotherapy as a care strategy, the present study was justified by the importance of verifying the existing information about this technique to guide its application in health units, as well as to analyze the experiences reported on the impacts of its use. Its development provides theoretical material to support more specific studies and contribute to the effective application of auriculotherapy as an integrative and complementary practice in health.

Her interest in the theme arose after participating in an auriculotherapy course during her undergraduate nursing studies, starting to use it in her professional practice, including during her multiprofessional residency in collective mental health in a municipality in the metropolitan region of Fortaleza, with the Psychosocial Care Centers for psychic suffering in general and resulting from the use of alcohol and other drugs – CAPS Geral and CAPS Álcool e Drogas (CAPS AD) (CAPS General and CAPS Alcohol and Drugs) as her field of action. respectively. During the professional practice in this scenario, the potential of therapy to provide care to patients was observed, facing the obstacle of high patient demand and few professionals offering integrative practice in the health service.

Therefore, this study aimed to identify in the scientific literature the impacts of the use of auriculotherapy in mental health care. As secondary objectives, we sought to describe the action of auriculotherapy in patients with mental disorders and to list the challenges for the implementation of auriculotherapy as a care tool.

METHODS

The study is descriptive and consists of an integrative review developed from the recommendations of the *Preferred Reported Items for Systematic Reviews and Meta-Analyses* (PRISMA)⁸.

Bibliographic research allows the researcher to get in touch with the information present in the literature, in order to infer answers to the questions raised, in addition to identifying information about the current context of the chosen subject⁹.

The CAPES Periodicals portal was used to access the Latin American and Caribbean Literature in Health Sciences (LILACS), *Medline/Pubmed*, and *Scientific Electronic Library Online* (SciELO) databases, in which data were collected from December 2023 to February 2024.

To prepare the research question, the PVO strategy was adopted, in which each letter of the acronym is related to its respective research component, being P – research problem (use of complementary therapy); V – variable of interest (auriculotherapy); O – outcome/outcome (mental health). Based on this, the following guiding question was

elaborated: What are the impacts of the use of auriculotherapy as a complementary therapy in the context of mental health?

To search the LILACS and SciELO databases, the descriptors in Portuguese "Auriculotherapy", "Complementary Therapies" and "Mental Health" were used, from DeCS. In the *Medline/Pubmed* database, the descriptors in English "*Auriculotherapy*", "*Complementary Therapies*" and "*Mental Health*" were used, from MeSH.

The chosen descriptors were combined two by two using the boolean operator *and*. The crosses in Portuguese were carried out as follows: "Auriculotherapy" AND "Mental Health", "Auriculotherapy" AND "Complementary Therapies" and "Mental Health" AND "Complementary Therapies". Similarly, the crossovers in English were: "*Auriculotherapy*" AND "*Mental Health*", "*Auriculotherapy*" AND "*Complementary*" AND "*Complementary*".

To define the studies to be selected for synthesis, the inclusion criteria were considered: articles published in the last 10 years, in Portuguese and/or English, that deal with the use of auriculotherapy in the context of mental health. However, among the studies found, the following exclusion criteria were adopted: bibliographic reviews, opinion articles, academic publications (monographs, dissertations, and theses), duplicate articles, unavailable in full and that did not answer the guiding question.

When searching the databases, a total of 302 studies were found that met the inclusion criteria. Then, applying the exclusion criteria, eight articles were selected to compose the sample of the present study (Figure 1). It should be noted that the exclusion of most studies was due to the fact that they addressed another object of research, which may be related to the use of broad terms to search for articles in the databases, resulting in the inclusion of studies that addressed other integrative practices unrelated to auriculotherapy.

After defining the sample to be studied, the information was collected using a synthesis matrix prepared by the authors with data from the publication and characterization of the articles, as well as specific information related to the use of auriculotherapy in mental health.

The results found were arranged in tables to facilitate the understanding of the data, which were analyzed, interpreted, and discussed based on the scientific literature published on the subject. In addition, the studies were coded with the letter E, followed by the cardinal numerals from 1 to 8, ordered in chronological order of publication, to facilitate the identification of the information regarding each one.

As this is an integrative review, the material used for data collection is in the public domain and freely accessible online and does not consist of research with human beings. Therefore, this research did not require submission and approval by the Research Ethics Committee for its development.

dentification	Studies identified in LILACS (40), SciELO (44) and MEDLINE (218) databases (n = 302)		
Ide		►	Excluded due to duplicity (n = 31)
	Selected studies to read the titles (n = 271)		
Selection			Excluded by title: Other research object (104), review (66) (n = 170)
	Selected studies To read the abstracts (n = 101)		Excluded by the abstract:
	↓		other research object (73); review (10); editorial (1); Not available in full (1) (n = 85)
Eligibility	Selected studies for full reading and Eligibility Assessment (n = 16)		Excluded after reading in full:
Inclusion		another research object (4); academic production (1); revision (1); Not available for free (2)	
	Studies included for synthesis (n = 8)		(n = 8)

Figure 1 – Selection flow of the articles included in the review, adapted from the *PRISMA checklist*, Fortaleza, CE, Brazil, 2024.

Source: Authorship.

RESULTS

Among the articles that made up the sample, 87.5% (7) were written by Brazilian researchers and 12.5% (1) by researchers from Iran. From this, it can be inferred that the findings of the present study are more strongly related to the context of the Brazilian health system, in addition to indicating the approach to the theme more frequently in research carried out in Brazil.

Also, regarding the main authors, 75% (6) of the studies were developed by nurses. In the other studies, a physician and a psychologist were found as the main authors. Thus, it is possible to infer that the nursing category, in addition to being within the list of professions that work with integrative practices, is also responsible for a considerable part of the production of studies in the area.

When evaluating the studies in terms of objectives (Chart 1), the presence of two mental health problems highlighted in the articles is identified: anxiety, present in 37.5% (3) of the studies, and stress, present in 25% (2) of the articles. Of the remaining three studies, one addresses the use of auriculotherapy in attention deficit hyperactivity disorder (ADHD); the other deals with the use of auriculotherapy in smoking cessation; and the last discusses the perception of health professionals about the use of auriculotherapy in mental health problems.

Author(s), Year, Country	Objective	Study Type	Population/ Sample
Silva et al., 2014, Brasil. (E1)	To evaluate the contribution of auriculotherapy to smoking cessation.	Randomized, double- blind controlled clinical trial.	30 workers at a public university in the south of Minas Gerais, smokers, who wanted to quit smoking.
Prado, Kurebayashi, Silva, 2018, Brazil. (E2)	Kurebayashi, Silva, 2018, Brazil. Brazil. Auriculotherapy in a control group without intervention in the treatment of stress identified in nurses of a large		168 nurses from a large charitable hospital in São Paulo, with medium and high levels of stress.
Mafetoni et al., 2018, Brasil. (E3)	To evaluate the effectiveness of auriculotherapy on women's anxiety during labor.	Randomized, parallel, triple-blind clinical trial.	102 parturients with gestational age \geq 37 weeks, cervical dilation \geq 4 cm and two or more contractions in 10 minutes admitted to a public university hospital in the State of São Paulo.
Binesh et al., 2020, Irã. (E4)To compare the efficacy of auriculotherapy with the placebo procedure in attention deficit hyperactivity disorder.		Randomized placebo- controlled trial.	50 children aged 6 to 14 diagnosed with ADHD at four wellness centers in Tehran, Iran.
Silva et al., 2020, Brasil. (E5) To evaluate the effects of auriculotherapy on anxiety levels in low-risk prenatal care pregnant women.		This is a randomized, single-blind clinical study.	50 pregnant women from a low-risk prenatal outpatient clinic in a philanthropic maternity hospital in the State of Espírito Santo.
Silva et al., 2021, Brasil. (E6)	2021, Brasil. to reduce signs and Pilot randomic controlled stu		80 professionals from the nursing team of a public teaching hospital, specialized in oncology, in the city of São Paulo.

Chart 1 – Characterization of the studies in terms of objective, type of study, population, and sample, Fortaleza, CE, Brazil, 2024.

Jales et al., 2021, Brasil. (E7)	OBJECTIVE: To analyze the effect of auriculotherapy on the anxiety and stress scores of elementary school teachers and teachers of the Youth and Adult Education program of a municipal elementary school in João Pessoa, capital of the State of Paraíba.	Before-and-after intervention study.	11 teachers from elementary school I and II and from the Youth and Adult Education program of a municipal elementary school in the State of Paraná.
Silva, Santos, Tesser, 2022, Brazil. (E8)	OBJECTIVE: To investigate the perception of physicians and nurses in Primary Health Care in Florianópolis-SC about the use of auriculotherapy in the management of mental health problems.	This is an exploratory, descriptive, qualitative- quantitative study.	44 professionals (20 physicians and 24 nurses) working in Primary Health Care in the North Sanitary District, Florianópolis.

Source: Authorship.

In addition, there was a predominance of randomized clinical studies (Chart 1). It is noteworthy that the selected studies were developed with the most diverse populations (children, adults, health professionals or not, patients in care at the health service, people diagnosed or not with a mental disorder).

Regarding the impacts of auriculotherapy on mental health (Chart 2), it was noticed that most studies presented positive results, such as the reduction of the intensity of symptoms and the approach to the individual in a holistic way, with anxiety being the most prevalent health problem in the studies. As for the negative aspects, most of them were related to the limitations of the studies regarding the way to collect information, the number of participants, the difference between the populations studied, and the definition of the strategy for the control group.

Chart 2 – Synthesis of studies on the impacts of auriculotherapy on mental health care, Fortaleza, CE, Brazil, 2024.

Study	Positives	Negatives
E1	 1.2-fold reduction in the number of cigarettes consumed at the end of treatment, with maintenance after the end of the intervention; Reduced levels of exhaled carbon monoxide. 	• Statistical difference was not significant in the studies.
E2	• Reduction in stress level.	 The control group also showed a reduction in stress levels, even if at a lower intensity; Difficulty in choosing inert auricular points to work with the control group.
E3	 Control of anxiety levels in pregnant women during labor. 	• Research environment with a high number of interventions.
E4	• Decreased symptoms of attention deficit hyperactivity disorder.	 Exacerbation of symptoms in the control group; Difficulty in assessing the participants' commitment to auricular point stimulation; Loss of adhesive tapes.

E5	• Decreased level of anxiety in pregnant women during low-risk prenatal care.	• Low number of participants in the research due to the reduced flow of patients in the outpatient clinic.
E6	 Decreased levels of tension, depression and mental confusion; Mood improvement assessed by the BRUMS scale. 	• Domains such as anger and irritability did not differ between the intervention group and the control group.
E7	• Beneficial effect on anxiety and stress relief, in the fourth and ninth sessions, respectively.	 Closed protocol; Consultations carried out in front of other school professionals; Use of material that needs to be stimulated during the week.
E8	 Significant improvement of patients with mental health problems; Adequacy to Primary Health Care; Improvement of anxious and depressive symptoms; Promotion of an expanded and less medicalizing approach; Reduction of iatrogenic production. 	 Limitation on the selection of participants; Most respondents are sympathetic to auriculotherapy; A method of data collection impervious to dialogue, making analytical depth difficult.

Source: Authorship.

DISCUSSION

One of the positive factors of auriculotherapy is the possibility of reducing the use of medications, which makes this technique ideal for populations that have contraindications to use medications or in situations in which strategies are sought to reduce or avoid medicalization. In the context of mental health, the data show that cases that use non-pharmacological treatments have a better prognosis, especially when started early¹⁰⁻¹².

It is noteworthy that one of the populations addressed in the studies were pregnant women, considering that the gestational period generates an intense emotional load with increased levels of stress and anxiety. In addition, due to the lack of data on the effects of medications in this context, it is not possible to clearly define the impacts of medications to control mental health problems on the health of the fetus, and it is important to assess the risks and benefits of their use, as well as to associate them with other care measures¹³.

Thus, it is necessary for them to resort to non-pharmacological strategies to control symptoms and it was evidenced that auriculotherapy is efficient in reducing the levels of anxiety in women during the gestational period, both during prenatal care and during labor^{10,11}.

Children also represent a population in which the use of medications has contraindications, and it is evident that auriculotherapy is also able to reduce symptoms related to ADHD, which ratifies the use of this technique as an alternative in the mental health care of this group¹⁴.

It is noteworthy that, although 75% (6) of the studies used randomized clinical trials as a technique, the differences in methodology between them stand out as factors that interfere in the comparison of studies. Disorders and populations with specific characteristics were addressed in the articles. In addition, there is a considerable difference in the sample size of each study, as well as in the techniques used to collect the

data. This diversity makes the data broader with regard to the aspects evaluated but makes it difficult to compare the information obtained.

However, studies converge with regard to the reduction of symptoms of stress, anxiety and mood improvement, even in different populations, which allows us to infer that the technique is efficient in controlling these symptoms. In addition, the studies that used a control group and an intervention group corroborated the findings of a study developed with students from a nursing school in São Paulo¹⁵ on the effect of greater improvement in the intervention group¹⁶⁻¹⁸.

In addition, these findings are confirmed by a study carried out with the application of auriculotherapy in an emergency unit of a hospital in Spain, which demonstrated significant differences between the group that received the therapy and the group that received a placebo, both showing a decrease in the levels of stress and anxiety of health professionals who were experiencing the context of COVID-19, with the intervention group having a 5-fold greater improvement¹⁹.

Another mental health problem, smoking, has been shown to be positively influenced by the use of auriculotherapy, resulting in a decrease in the number of cigarettes consumed and in the amount of carbon monoxide exhaled. However, the study had limitations in the generalization of the results due to the small number of participants and the short duration of the therapeutic approach²⁰.

A study carried out by Korean researchers also highlights the possibility of using the auriculotherapy technique in the context of natural disasters, in order to work with the affected emotional aspects, as well as to reduce the symptoms of post-traumatic stress that some patients may develop in this scenario, which demonstrates another potential area of use of this therapy²¹.

It is also important to highlight that, in one of the articles¹², the authors refer to the adequacy of Primary Health Care (PHC) as one of the positive aspects of auriculotherapy, due to its problem-solving potential and the strengthening of bonding and welcoming, which can be supported by a study²² who states that PHC has the potential to reduce the needs in mental health care through the use of holistic approaches that address the individual in an integral way¹².

However, in this context of public health, responsible for the longitudinal and comprehensive care of the patient, Integrative Practices should work together with other interventions. However, there are still obstacles in the implementation of this care, as demonstrated by a study carried out in a basic health unit in Paraná, in which it was evidenced from the patients' discourses that auriculotherapy was included in the care plan only as a last choice, often when the problem is already more complicated²³.

In addition, it was demonstrated a potential to reduce iatrogenic effects from the use of this integrative practice in health promotion and care, since it allows the reduction of the use of medications for the treatment of the symptoms presented, ratifying the findings of a research²⁴ which points out the contributions of PICS to reduce the use of large quantities of medicines and consequently their negative effects¹².

Based on these data, this technique of traditional Chinese medicine, with effects already known in the treatment of physical issues, presents significant results in mental

health care, however, in order to confirm this usefulness in a more secure way, more concrete data are needed.

FINAL CONSIDERATIONS

It was possible to identify that auriculotherapy has positive impacts on mental health problems, such as a decrease in the number of cigarettes consumed by smokers, as well as improved mood and reduced symptoms of attention deficit hyperactivity disorders, anxiety, and stress.

However, the studies addressed present cross-sectional approaches, which limits the evaluation of their long-term effects, in addition to presenting difficulties in choosing approaches for the control group in randomized clinical trials, due to the possible action of the auricular sutures chosen on the health problems presented.

In addition, the low number of articles on the subject suggests that the scientific production on auriculotherapy applied to mental health still needs to be expanded, highlighting the need for further studies in order to fill the gaps in knowledge that still exist and stimulate the implementation of this technique effectively.

To reduce the obstacles related to the generalization of the results, it is suggested that more comprehensive studies be carried out regarding the number of participants, the use of a longitudinal approach with a greater number of auriculotherapy sessions and longer periods for data collection, as well as the monitoring of the impact of the technique after a longer period of time from the last session.

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