



AURICULOTHERAPY IN THE CARE OF ANXIETY AND DEPRESSION

AURICULOTERAPIA NO CUIDADO DA ANSIEDADE E DEPRESSÃO

AURICULOTERAPIA EN EL CUIDADO DE LA ANSIEDAD Y LA DEPRESIÓN

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ABSTRACT

Objective: to investigate the use of auriculotherapy in the treatment of anxiety and depression. **Method:** this is an integrative review of the literature, from 2013 to 2018, carried out in the months of July and August of 2018, in the following databases: MEDLINE, CINAHL, LILACS, SCOPUS and SCIELO virtual library. Data were analyzed using descriptive statistics with numbers and percentage. **Results:** it was found that the data collection instrument, the number of sessions, the auricular points, and the material used to stimulate them were different; fortunately none was considered a limiting factor. **Conclusion:** It was evidenced that the point of anxiety, proposed by auriculotherapy based on the French school, was not stimulated in any study. In addition, the lack of consensus and lack of specification of the auricular map or strand followed complicate the production of new studies. **Descriptors:** Auriculotherapy; Anxiety; Depression; Complementary Therapies; Mental Health; Traditional Chinese Medicine.

RESUMO

Objetivo: investigar o uso da auriculoterapia no tratamento da ansiedade e depressão. **Método:** trata-se de uma revisão integrativa da literatura, de 2013 a 2018, realizada nos meses de julho e agosto de 2018, nas bases de dados MEDLINE, CINAHL, LILACS, SCOPUS e biblioteca virtual SCIELO. Analisaram-se os dados empregando a estatística descritiva com número e percentual. **Resultados:** constatou-se que o instrumento de coleta dos dados, a quantidade de sessões, os pontos auriculares e material utilizado para estimulá-los foram diferentes, felizmente não foram considerados fatores limitantes. **Conclusão:** evidenciou-se que o ponto da ansiedade, proposto pela auriculoterapia baseada na escola francesa, não foi estimulado em nenhum estudo. Complementa-se que a falta de consenso e a não especificação do mapa auricular ou vertente seguido acaba por dificultar a produção de novos estudos. **Descritores:** Auriculoterapia; Ansiedade; Depressão; Terapias Complementares; Saúde Mental; Medicina Tradicional Chinesa.

RESUMEN

Objetivo: investigar el uso de la auriculoterapia en el tratamiento de la ansiedad y la depresión. **Método:** se trata de una revisión integradora de la literatura, de 2013 a 2018, llevada a cabo en los meses de julio y agosto de 2018 en las bases de datos: MEDLINE, CINAHL, LILACS, SCOPUS y biblioteca virtual SCIELO. Los datos se analizaron empleando la estadística descriptiva con número y porcentaje. **Resultados:** se verificó que el instrumento de recolección de datos, la cantidad de sesiones, los puntos auriculares y el material utilizado para estimularlos eran diferentes, pero afortunadamente no se consideraron factores limitantes. **Conclusión:** se evidenció que el punto de ansiedad, propuesto por la auriculoterapia basada en la escuela francesa, no fue estimulado en ningún estudio. Se complementa que la falta de consenso y la no especificación del mapa auricular o vertiente seguidos obstaculizan la producción de nuevos estudios. **Descriptor:** Auriculoterapia; Ansiedad; Depresión; Terapias Complementarias; Salud Mental; Medicina China Tradicional.

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INTRODUCTION

It is known that the history of Brazilian public health values knowledge, study and intervention in physical pathologies with traditional allopathic resources. It is pointed out that psychic illnesses have become a frequent health complaint in the population, affecting people in different life cycles, and representing 13% of all pathologies. Approximately 1 in 10 people presents mental suffering, a situation considered a worldwide health problem that has important implications for interpersonal relationships, and for professional and personal life.¹

It is evidenced that, among the main complaints and diagnoses related to psychic suffering, depression and anxiety have high prevalence rates. It has been found that depression is in the class of mood disorders and affects around 350 million people worldwide and is considered one of the pathologies that cause economic loss for countries. It is added that anxiety is a complete emotion acting on the physical and mental aspect of the individual, which, depending on the intensity and frequency, may be pathological or not.^{1-2,3-7}

It should be emphasized that the first choice treatment for anxiety and depression are psychoactive drugs and that, although this drug class causes severe side effects, its use is increasingly widespread, adopted in an early and indiscriminate way. Benzodiazepines - medication of the anxiolytic class - are the most prescribed drugs in the world, perhaps due to the growth of diagnoses of mental disorders in the population.^{2,8}

Another aggravating factor to consider is that about 45% of the world population is in countries where there one psychiatrist for every 100 thousand inhabitants, and because of lack of qualified professionals, these drugs are also prescribed by gynecologists, general practitioners, dermatologists and endocrinologists. It is known that the growing use of psychotropic drugs, most of the times without necessity, and the damages caused to individuals, results in the need for complementary care that addresses the disease, prevents injuries and treats the individual as a whole. As a response to this demand, Integrative and Complementary Practices (ICPs) have been implemented in Brazil.^{1,4}

Auriculotherapy stands out as one of the strands of Traditional Chinese Medicine (TCM). This therapy considers the ear, a segment of the body that is much innervated and present points whose stimulation by needles, mustard seeds and crystal balls cause reactions in the neurovegetative system, in specific organs or regions of the body. The ear points are selected according to the

precepts of the TCM and/or according to reflexology, studied and suggested by French Dr. Paul Nogier in 1951.⁹⁻¹⁴

The benefits of auriculotherapy and its easy application are acknowledged, as well as the side effects of continued and prolonged use of psychotropic drugs, and the need for increasingly high doses of these drugs.

OBJECTIVE

- To investigate the use of auriculotherapy in the treatment of anxiety and depression.

METHOD

This is an Integrative Review of the Literature carried out in July and August of 2018, which was characterized by the gathering of studies of several methodologies in order to understand more comprehensively a certain theme. This study is composed by 5 stages: formulation of the problem; data collection; evaluation of data; analysis and interpretation of data; and dissemination of data.¹⁵⁻¹⁶

This study had the following guiding question: What theoretical information has been accumulated and published in scientific articles on the use of auriculotherapy in cases of anxiety and depression?

We searched the following databases: MEDLINEPubMed (Medical Literature Analysis and Retrieval System online), CINAHL (Cummulative Index to Nursing and Allied Health Literature), LILACS (Latin American and Caribbean Literature in Health Sciences), SCOPUS, and SCIELO (Scientific Electronic Library Online).

The following descriptors and their combinations were used in the Portuguese and English languages: "auriculotherapy", "anxiety" and "depression", which were combined with the Boolean operator AND as follows: auriculotherapy AND anxiety and auriculotherapy AND depression.

The scientific articles were selected according to the following inclusion criteria: articles published in Portuguese, English and Spanish; original articles available in full length, addressing the theme of this integrative review; and articles published and indexed in the said databases in the last six years (2012 to 2018). Works of conclusion of undergraduate courses, dissertations, theses, and articles whose access was paid were excluded from the sample.

An instrument was used for data collection and analysis, to identify the professional class of the authors, the language, country, year of publication, methodology used, target audience, and theoretical reference of the selected articles. Below there is a prism flowchart.

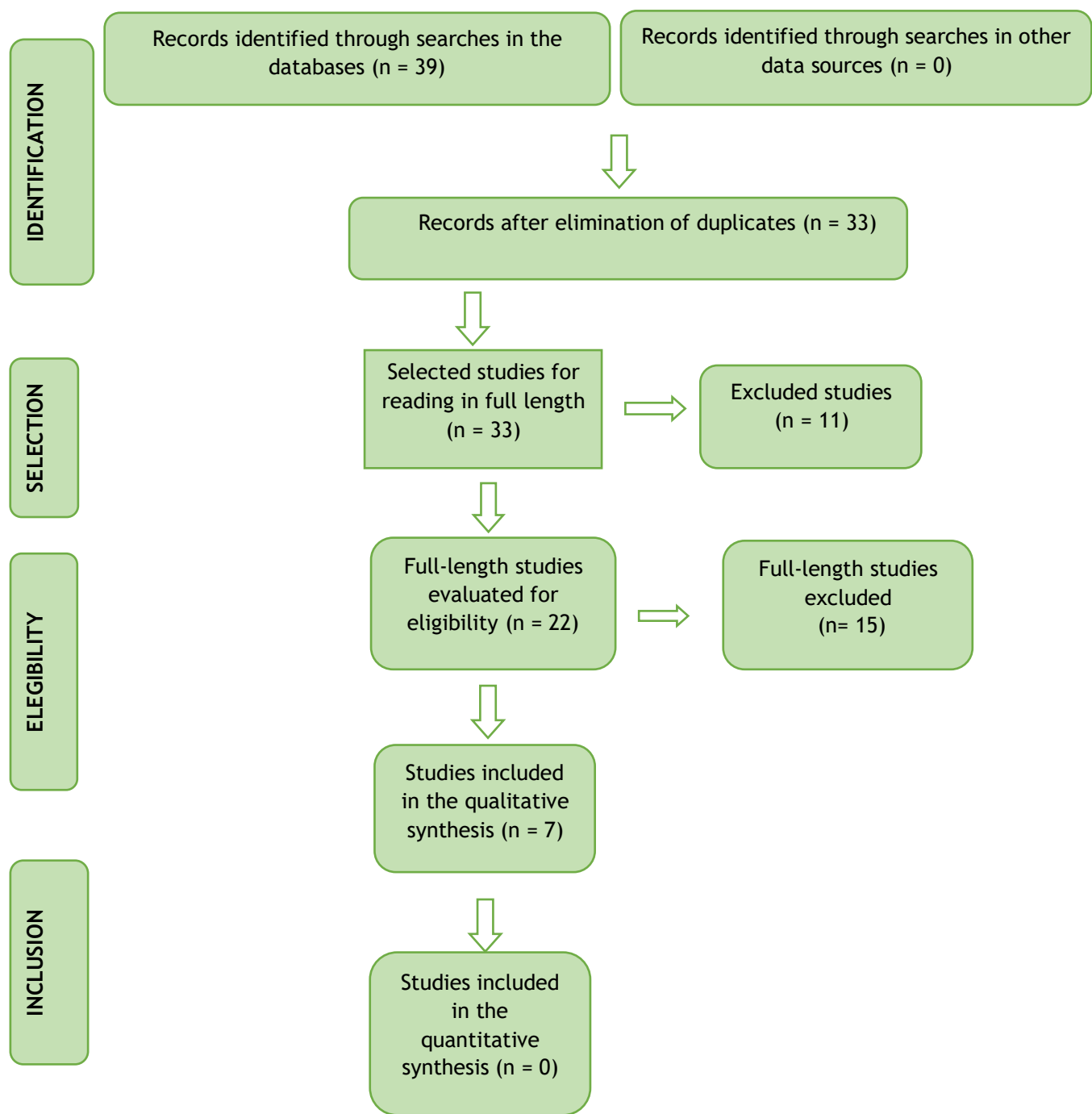


Figure 1. Flowchart of selection of studies. João Pessoa (PB), Brazil, 2018.

Seven articles were included in the study, four of them found in the MEDLINE database and one (01) in each of the following databases: LILACS, SCOPUS and SCIELO virtual library. Sequential numbers were assigned to the articles to facilitate their identification, and they were classified according to the evidence-based methodological design, based on the classification provided by the Joanna Briggs Collaborating Center¹⁷ in order to contribute to a change in the health care for individuals with depression and/or anxiety.

The following classification was made: Level I - Evidence obtained from a systematic review of randomized controlled clinical trials; Level II - Evidence obtained from a randomized controlled clinical trial; Level III.1 - Evidence obtained from well-delineated non-randomized controlled clinical trials; Level III.2 - Evidence obtained from well-designed cohort or case control studies; Level III.3 - Evidence obtained from multiple time series with or without intervention and dramatic results

in uncontrolled experiments; and Level IV - Opinion of respected authorities, based on clinical criteria and experience, descriptive studies or expert committee reports.¹⁸

Data were analyzed using descriptive statistics with numbers and percentage.

RESULTS

The selection of studies that composed this Integrative Review of the Literature is presented in Figure 2, showing the studies with their respective authors, year of publication, country where the study was carried out, methodology used, and level of scientific evidence.

Nº	Tittle	Author	Year/Country
1	Efficacy of auriculotherapy in reducing anxiety in nursing students ¹⁹	Prado, J.M.; Kurebayashi, L.F.S.; Silva, M.J.P.	2012/Brazil Randomized clinical trial/Level II
2	Auriculotherapy against anxiety in university tests according to a longitudinal blinded pilot study ²⁰	López-Arza, M.G.V. et al.	2013/Spain Longitudinal, non-comparative pilot study/Level III
3	Auricular Acupuncture Versus Progressive Muscle Relaxation in Patients with Anxiety Disorders or Major Depressive Disorder: A Prospective Parallel Group Clinical Trial ²¹	Lorent, L. et al.	2016/Germany Non-randomized clinical study/Level III
4	Treatment of anxiety with traditional techniques ²²	Rodríguez, J.A.C.;	2013/USA Randomized clinical trial/Level II
5	Adding Integrative Meditation with Ear Acupressure to Outpatient Treatment of Cocaine Addiction: A Randomized Controlled Pilot Study ²³	Chen, K. W. et al.	2017/Brazil Randomized clinical trial/Level II
6	Auriculotherapy for reduction of anxiety and pain in nursing professionals: a randomized clinical trial ²⁴	Chen, K. W. et al.	2017/Brazil Randomized clinical trial/Level II
7	The Effect of Auriculotherapy on the Stress and the Outcomes of Assistant Reproductive Technologies in Infertile Women ²⁵	Saffari, M.; Khashavi, Z.; Valiani, M.	2018/Iran Three-Stage Clinical Trial/Level III

Figure 2. Scientific production according to title, authors, year, place of publication, method, and level of evidence of the studies. João Pessoa (PB), Brazil, 2018.

It was observed that in some studies it was not possible to evaluate the isolated effect of auriculotherapy because other interventions were used concomitantly, as verified, for example, in studies 4 and 5 and their respective interventions. Although study 3 did not use a technique associated with auriculotherapy, its results were not reliable because the participants who used psychotropic drugs were not exclude from the sample.

It was seen that the authors of the articles included in this review are from different professional health categories. It was verified that physicians participated in the preparation of studies 2, 3, 4 and 5 (57.14%) and nurses were present in the authorship of studies 1, 6 and 7 (42.85%). Of the seven studies analyzed here, two (28.57%) were published in Portuguese (studies 1 and 6), two (28.57%) in Spanish (studies 2 and 4), and three (42.85%) in English (studies 3, 5 and 7).

It is shown in Figure 2 that Brazil was the country the most studies developed on the subject in the last 6 years, representing 28.57% of the total articles selected for this study, with one article in the year of 2012 and another in the year of 2017, both carried out in the Southeast region in the state of São Paulo and having nurses as authors (articles 1 and 6).

The years 2012 and 2013 presented a greater number of publications, with 2 articles in each one of them, representing 57.14% of the publications on the theme in the period studied. However, a reduction of publications was observed in the following years (an annual publication), which is

explained by the fact that, in this study, articles whose access was paid wer excluded.

The predominant scientific method used was clinical trials, being present in five articles and representing 71.42% of the total of articles. Of these, four (80%) used randomization as sample selection strategy.

DISCUSSION

When the columns 3 and 4 of Table 1 are correlated, it is evident that the medical class was responsible for the authorship of most articles (studies 2, 3, 4 and 5), and all were of international origin. Some countries such as Germany, Spain and the United States of America are recognized in the literature as promoters of development of research in this area. In Germany, for example, since 2003, medical universities included a certain workload of the course’s curriculum to address ICPs. In some states of Spain, graduate programs at master’s level in naturalistic therapies are offered for physicians and nurses. In turn, the United States of America together with the United Kingdom and Canada increased the financial incentive for research in this area.²⁶⁻²⁷

Still with regard to the number of articles of international origin, it is evident that Brazil (Box 1) was the country with the highest number of studies, represented by two articles authored by nurses. Thus, the absence of professionals who are a reference in the assistance provided to anxiety and depression (psychologists and psychiatrists) in the authorship of the national studies leads us to

infer that these professional categories still provide assistance based on the biomedical model.

The fact that nursing is responsible for the production of the two national articles is justified by two factors: the first is that nursing was the first professional health class to adopt the use of ICPs, through legislative report 004/95 of the Federal Council of Nursing, which besides recognizing the use of ICPs, establishes that nurses can qualify and/or specialize in such practices²⁸. The second factor concerns the academic field, in which the nursing course, when compared to those of physical therapy and medicine, offers more subjects in the theme ICPs. However, nursing professionals have not assumed the leading role in the use of ICPs in health care often because of insecurity to give guideline on their use.²⁰

Thus, the unanimity of the nursing category in the production of national articles, demonstrated in this study, provides the understanding that this professional category has been expanding its knowledge and qualifying care in a comprehensive manner. This shows that these professionals are more open to an unconventional and comprehensive perspective, and consequently are contributing to non-biomedical training of future nurses, thus reversing the biologicist care situation.²⁹⁻³⁰

Another contributing aspect to the implementation of ICPs in the curriculum of health courses and in the health care of individuals is the scientific method used by most of the studies. In column 5 of Box 1, there is a predominance of randomized clinical trials as method, considered the "gold standard" of scientific methodologies because it allows verifying the effect of a certain intervention with greater reliability, comparing the intervention group with other groups (placebo, needle intervention, seed intervention) randomly allocated, and therefore eliminating bias. This method produces results that are closer to reality with greater level of confidence. Because of this, the level of evidence that was most present in this study was level II, a value assigned to randomized clinical trials, which together with level I are considered to have a strong impact.^{8,17, 27,31}

It was also observed that although the studies presented relatively similar goals, to verify the effect of auriculotherapy on anxiety and/or depressions, there were divergences regarding the target audience instruments used for data collection, variability in the number of sessions, auricular points, and materials to stimulate them.

The use of the data collection instruments occurred at several moments: before the intervention to select the sample, between some sessions, and even after the application. The data collection instruments used and the respective studies were: State-Trait Anxiety Inventory (IDATE) (articles 1, 5 and 6); analogue anxiety scale

(articles 2 and 3); questionnaire prepared by the researchers (Articles 4 and 7); self-efficacy scale, Beck Depression inventory-II, situational confidence questionnaire, adverse event checklist, checklist based on the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM- IV), and Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) (article 5); and the questionnaire for the assessment of psychosomatic disorder process (FAPK) (article 3). In another integrative review of the literature¹², the IDATE was also characterized as the most widely used data collection instrument in the scientific productions analyzed by the authors. Another way to evaluate the effects was through urinalysis (articles 3 and 5) and hemogram (article 3).

IDATE is an instrument that was developed in 1983 by English Spielberger and consists of two likert-type self-assessment scales with scores ranging from 1 (nothing) to 4 (very much), composed of 20 items each, whose purpose is to explore sensations of: well-being, fatigue, decision, problem solving, worry and others, which allow identifying trait anxiety (permanent characteristics) and state anxiety (transient/current characteristics).³²⁻³³

Considering the results obtained by the instruments, it was noticed that depending on the material used to stimulate the points and the number of sessions, the results of auriculotherapy on anxiety and depression can vary from more or less positive. Study number 6²⁴ applied auriculotherapy to three groups: one with seeds, another with needles, and another with adhesive tape only. After the evaluation, it was observed that the group whose technique used needles obtained better results in comparison with the other options, nevertheless, the authors recommend the use of seeds to generate less discomfort and to allow the application by trained people, when a protocol is to be used. It is inferred, therefore, that this is the reason for the researchers^{21,25} to use seeds in their interventions. Study 1 used both needles and seeds, and the study 3 used only needles. These data diverge from an integrative review of the literature in which needles were the most used material followed by seeds and, finally, crystals.¹²

In three articles (3, 5 and 6) an application protocol was followed: in articles 3 and 5 the points used were those recommended by the protocol of the National American Detoxification Association (NADA). This protocol is of easy application and is directed to patients in abstinence from substances and uses 5 points: Shenmen, sympathetic, kidney, liver and lung. Study 5 used a modified version, and thus stimulated the points of the heart and subcortex instead of the point of the kidney and sympathetic system. Article 6 had its technique based on the

beta version of the Auricular Protocol for Pain & Anxiety (APPA), a protocol recently developed for populations living in danger, conflicts and disasters related to poverty. It uses the following points: Shenmen, tranquillizer, thalamus, autonomic or sympathetic system, and zero point.^{20-21,23}

Other aspects that were not similar in the articles were the number and duration of sessions. There were interventions every 15 days (article 2), in 4 (article 3), 8-12 (article 7), 10 (article 6), and 12 sessions (articles 1 and 5). Some were twice a week (articles 3 and 6). The duration of the sessions ranged from a minimum of 5 (articles 1 and 6) and a maximum of 30 (article 7) minutes. From the 8th week onwards, positive results on anxiety control were evidenced (articles 1 and 5).

Although the studies used different auricular points, data collection instruments, and number of sessions, these were not considered a limiting factor for the studies.

Different limitations were mentioned by the authors, and the following stood out among the most frequent: research sample (studies 1, 3, 5, 6 and 7) and placebo effect (studies 1, 2, 3, 6 and 7). Other limitations were cited, but less frequently: time of contact with the participants (studies 5 and 6), evaluation instrument (studies 3 and 5), and variability of maps (study 2). Study 4 did not present the limitations of the research.

The sample-related limitation was due to the homogeneity and small number of participants. The latter is considered an unavoidable factor, because even with a considerable number of participants at the beginning of the data collection, the study tends not to be reliable because of their withdrawal throughout the sessions, especially when they are anxious and/or depressed, due to the characteristics of the disease that include despair over the rapid effect of auriculotherapy. Another factor that may interfere with research results and depends on the participants of the sample is the stimulation of auricular points in which seeds were applied, they need to be pressed for better results and the researchers as not able to find out if this action was actually performed by the participants.^{22,24-25}

Placebo effect was one aspect that influenced the results. Due to varied situations, this term was frequently cited by the researchers in the study limitations section. In the first situation, it was considered a limiting factor when the Sham points of the study, false points close to the therapeutic points (those that would be used to reach the study objective), obtained a positive result over the control of anxiety in the first evaluation after 8 sessions. This unexpected fact is related to the belief or incorrect choice of Sham points, since there are several auriculotherapy maps. To know the presence or lack of effectiveness of such

points, the authors recommended the realization of new studies.^{19-20-21,24}

Contrary to the previous situation, in study 6, which used adhesive tape without any material to apply pressure (seeds or crystals) in a group, no placebo effect was observed, since it was not possible to blind the participants, and this was considered a limiting factor.²⁴ Finally, the absence of a placebo group to assess the effect of auriculotherapy on stress and on the results of assisted reproductive management was also considered a limiting factor.²⁵

In view of these limitations, it is advisable that future scientific productions stimulate Sham points in order to ascertain their efficacy and use heterogeneous samples composed of a larger number of collaborators, so that protocols can be evaluated.^{19,21-22}

CONCLUSION

The proposed goal of investigating the use of auriculotherapy in the treatment of anxiety and depression in the literature of the last six years was reached and allowed the understanding of some important aspects about the use of this therapy in the mentioned diseases.

It was observed that the factor common to all studies analyzed was the positive result on the control of anxiety and/or depression. Different points, data collection instruments, and compression materials were used for the same disease, demonstrating that the purpose of the point depends on the auricular map.

It was also observed in this research that the point of anxiety proposed by auriculotherapy based on the French school was not stimulated in any study. On the other hand, the authors used points that treated symptoms of anxiety and depression. Thus, the need for research that has in its intervention the stimulus of this point is encouraged, so that its effectiveness may be evaluated. It should be noted that lack of consensus and lack of specification of the auricular map or strand followed hinders the production of new studies.

It is concluded that when considering the period of publication investigated and the time of implantation of auriculotherapy in the Unified Health System, there is a certain scarcity and insufficiency of scientific productions on the researched subject, pointing to the need to increase research to provide scientific evidence on the benefits of auriculotherapy in the treatment of these disorders and the feasibility of its wide use.

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REFERENCES

1. Organización Panamericana de la Salud, Mental Health Gap Action Programme. Guia de intervención mhGAP para los trastornos mentales, neurológicos y por consumo de sustancias en el nivel de atención de salud no especializada. Washington, DC: Organización Panamericana de la Salud; 2017.10-173
2. Leornado BC, Cunha DF, Sakae TM, Remor KVT. Prevalência de transtornos mentais e utilização de psicofármacos em pacientes atendidos em um ambulatório médico de especialidades. Arq Catarin Med [Internet]. 2017 [cited 2018 July 3];46(2):39-52. Available from: http://www.acm.org.br/acm/seer/index.php/arq_uivos/article/view/268/154
3. Vasconcelos-Raposo J, Soares AR, Silva F, Fernandes MG, Teixeira CM. Níveis de ideação suicida em jovens adultos. Estud Psicol. 2016 Apr-June;33(2):345-54. DOI: <http://dx.doi.org/10.1590/1982-02752016000200016>
4. Campos EBV. Uma perspectiva psicanalítica sobre as depressões na atualidade. Est Inter Psicol. 2016 Dez;7(2):22-44. DOI: <http://dx.doi.org/10.5433/2236-6407.2016v7n2p22>
5. Gomes GC, Passos MHP, Silva HA, Oliveira VMA, Novaes WA, Pitangui ACR et al. Qualidade de sono e sua associação com sintomas psicológicos em atletas adolescentes. Rev Paul Pediatr. 2017 July;35(3):316-21. DOI: <http://dx.doi.org/10.1590/1984-0462/;2017;35;3;00009>
6. Trajano FMP, Almeida LNA, Araújo RA, Crisóstomo FLS, Almeida AAF. Levels of anxiety and impacts on voice: a literature review. Distúrb Comun [Internet]. 2016 [cited 2018 July 5];28(3):423-32. Available from: <https://revistas.pucsp.br/index.php/dic/article/viewFile/26617/21789>
7. Vasconcelos TC, Dias BRT, Andrade LR, Melo GF, Barbosa L, Souza E. Prevalência de Sintomas de Ansiedade e Depressão em Estudantes de Medicina. Re bras educ méd. 2015 Oct;39(1):135-42. DOI: <http://dx.doi.org/10.1590/1981-52712015v39n1e00042014>
8. Goyatá SLT, Avelino CCV, Santos SVM, Souza Junior DI, Gurgel MDLS, Terra FS. Efeitos da acupuntura no tratamento da ansiedade: revisão integrativa. Rev Bras Enferm. 2016 May-June;69(3):602-9. DOI: <http://dx.doi.org/10.1590/0034-7167.2016690325i>
9. García AP, Álvarez JS, Rosa GR. Efectividad de la auriculoterapia en la hipertensión arterial primaria en adultos según diagnóstico tradicional. AMC [Internet]. 2017 [cited 2018 July 07];21(1). Available from: <http://scielo.sld.cu/pdf/amc/v21n1/amc050117.pdf>
10. García NMR, Muñoz DMH, Reyes NV. Tratamiento de hábitos deformantes bucales en niños de 4 a 13 años con auriculoterapia. AMC [Internet]. 2017 [cited 2018 July 07];21(6). Available from: <http://www.redalyc.org/articulo.oa?id=211153611007>
11. Kurebayashi LFS, Gnatta JR, Borges TP, Silva MJP. Avaliação diagnóstica da Medicina Tradicional Chinesa dos sintomas de estresse tratados pela auriculoterapia: ensaio clínico. Rev Eletr Enf. 2014 Jan-Mar;16(1):68-76. DOI: <http://dx.doi.org/10.5216/ree.v16i1.20167>
12. Moura CC, Carvalho CC, Silva AM, Lunes DH, Carvalho de EC, Chaves ECL. Auriculoterapia efeito sobre a ansiedade. Revista Cubana de Enfermería [Internet]. 2015 [cited 2018 July 10];30(2):1-18. Available from: <http://www.revenfermeria.sld.cu/index.php/enf/article/view/596/90>
13. Salazar RMO. Importancia del estudio de la Auriculoterapia y la acupuntura en las carreras de tecnología de la salud. Rev. Cub. de Tec. de la Salud [Internet]. 2016 [cited 2018 July 07];7(4). Available from: <http://www.medigraphic.com/pdfs/revcubtecsal/cts-2016/cts164i.pdf>
14. Sousa EMD, Trindade AKF, Pereira IC. Auriculoterapia: terapia milenar e eficiente no tratamento de enfermidades. Conceitos [Internet]. 2014 [cited 2018 July 15];1(20):90-9. Available from: <http://www.adufpb.org.br/site/wp-content/uploads/2014/09/REVISTA-CONCEITOS-20-2.pdf#page=89>
15. Soares CB, Hoga LAK, Peduzzi M, Sangaleti C, Yonekura T, Silva DRAD. Revisão integrativa: conceitos e métodos utilizados na enfermagem. Rev Esc Enferm USP. 2014 Apr;48(2):335-45. DOI: <http://dx.doi.org/10.1590/S0080-6234201400002000020>
16. Souza NR, Freire DA, Souza MAO, Santos ICRV, Santos LV, Bushatsky M. Fatores predisponentes para o desenvolvimento da lesão por pressão em pacientes idosos: uma revisão integrativa. ESTIMA. 2017 July;15(4):229-39. DOI: <http://dx.doi.org/10.5327/Z1806-3144201700040007>
17. Souza FAC, Araújo JNM, Silva Soares RPS, Santos MMP, Ferreira Júnior MA, Vitor AF. Fatores de risco para retinopatia da prematuridade: revisão integrativa. Rev Eletr Enf. 2018 Apr;20:v20a04. DOI: <http://dx.doi.org/10.5216/ree.v20.43943>
18. Salles LF, Homo RFB, Silva MJP. Práticas integrativas e complementares: situação do seu ensino na graduação de enfermagem no Brasil. Revista Saúde [Internet]. 2014 [cited 2018 July

Jales RD, Gomes ALC, Silva FV da, *et al.*

- 20];8(3-4):37-44. Available from: <http://revistas.ung.br/index.php/saude/article/view/2005/1579>
19. Prado JM, Kurebayashi LFS, Silva MJP. Eficácia da auriculoterapia na redução de ansiedade em estudantes de enfermagem. *Rev Esc Enferm USP*. 2012 Feb;46(5):1200-06. DOI: <http://dx.doi.org/10.1590/S0080-62342012000500023>
20. López-Arza MVG, Mansilla JR, Fernández JM, Donoso EV, Sánchez BG, Palomares MJ. Auriculoterapia contra la ansiedad en los exámenes universitarios según estudio piloto longitudinal enmascarado. *Rev Int Acupuntura*. 2013 Jan-Mar;7(1). DOI: [http://dx.doi.org/10.1016/S1887-8369\(13\)70076-0](http://dx.doi.org/10.1016/S1887-8369(13)70076-0)
21. Lorent L, Agorastos A, Yassouridis A, Kellner M, Muhtz C. Auricular Acupuncture Versus Progressive Muscle Relaxation in Patients with Anxiety Disorders or Major Depressive Disorder: A Prospective Parallel Group Clinical Trial. *J Acupunct Meridian Stud*. 2016 Aug;9(4):191-9. DOI: <http://dx.doi.org/10.1016/j.jams.2016.03.008>
22. Rodríguez JAC, Morgado AR. Tratamiento de la ansiedad con técnicas tradicionales. *MEDICIEGO* [Internet]. 2012 [cited 2018 Aug 5];18(esp). Available from: http://bvs.sld.cu/revistas/mciego/vol_18noespc_2012/pdf/T3.pdf
23. Chen KW, Berger CC, Gandhi D, Weintraub E, Lejuez CW. Adding Integrative Meditation with Ear Acupressure to Outpatient Treatment of Cocaine Addiction: A Randomized Controlled Pilot Study. *J Altern Complement Med*. 2012 Oct;19(3):204-10. DOI: <http://dx.doi.org/10.1089/acm.2011.0311>
24. Kurebayashi LFS, Turrini RNT, Souza TPB, Marques CF, Rodrigues RTF, Charlesworth. Auriculoterapia para redução de ansiedade e dor em profissionais de enfermagem: ensaio clínico randomizado. *Rev Latino-Am Enfermagem*. 2017 Apr;25:e2843. DOI: <http://dx.doi.org/10.1590/1518-8345.1761.2843>
25. Saffari M, Khashavi Z, Valiani M. The Effect of Auriculotherapy on the Stress and the Outcomes of Assistant Reproductive Technologies in Infertile Women. *Iran J Nurs Midwifery Res*. 2018 Jan-Feb;23(1):8-13. DOI: http://dx.doi.org/10.4103/ijnmr.IJNMR_105_16
26. Lopes ACP, Ceolin T, Ceolin S, Lope CV. As Contribuições da Disciplina “Terapias Complementares Com Ênfase em Plantas Medicinais” na Prática Profissional dos Enfermeiros. *J. res: fundam care*. 2018 July-Sept;10(3):619-625. DOI: <http://dx.doi.org/10.9789/2175-5361.2018.v10i3.619-625>
27. Salles LF, Homo RFB, Silva MJP. Situação do ensino das práticas integrativas e complementares

Auriculotherapy in the care of anxiety...

- nos cursos de graduação em enfermagem, fisioterapia e medicina. *Cogitare Enferm* [Internet]. 2014 [cited 2019 Jan 15];9(4):741-6. Available from: <https://revistas.ufpr.br/cogitare/article/view/35140/23941>
28. Karino ME, Felli VEA. Enfermagem baseada em evidências: avanços e inovações em revisões sistemáticas. *Cienc Cuid Saúde* [Internet]. 2012 [cited 2018 June 20];1(supl):11-5. Available from: <http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/17048/pdf>
29. Araújo TC, Pereira A, Sampaio ES, Araújo MSS. Uso da música nos diversos cenários do cuidado: revisão integrativa. *Rev baiana enferm*. 2014 Jan-Apr;28(1):96-106. DOI: <http://dx.doi.org/10.18471/rbe.v28i1.6967>
30. Contarato AAPF, Bento FC, Rampellotti LF. Motivação dos pacientes com histórico de câncer de mama em buscar as terapias alternativas. *Extensio: R Eletr de Extensão*. 2016 Jan;13(24):64-82. DOI: <http://dx.doi.org/10.5007/1807-0221.2016v13n24p64>
31. Nedel WL, Silveira F. Os diferentes delineamentos de pesquisa e suas particularidades na terapia intensiva. *Rev Bras Ter intensiva*. 2016 July;28(3):256-60. DOI: <http://dx.doi.org/10.5935/0103-507X.20160050>
32. Kohlsdorf M, Costa Junior, AL. Análise metodológica sobre literatura em onco-hematologia pediátrica. *Psicol. saúde doenças*. 2017 Mar;18(2):527-44. DOI: <http://dx.doi.org/10.15309/17psd180220>
33. Chaló P, Pereira A, Sancho L, Mateus H. Biofeedback e ansiedade no ensino superior: comparação da eficácia entre dois programas breves. *Psicol saúde doenças*. 2016 Feb;17(1):60-6. DOI: <http://dx.doi.org/10.15309/16psd170109>

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