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Auszug aus Studien zum Autogenen Training Grundstufe

Stand: 10.04.2025

Quelle: <https://pubmed.ncbi.nlm.nih.gov/24906579/> 23.08.2023

Ajimsha MS, Majeed Nisar A, Chinnavan E, Thulasyammal Ramiah P (2014)
Effectiveness of autogenic training in improving **motor performances in Parkinson's disease**. Complement Ther Med 22(3):419-25. DOI: 10.1016/j.ctim.2014.03.013

Abstract

Background: Relaxation training can be an important adjunct in reducing symptoms associated with Parkinson's disease (PD). Autogenic Training (AT) is a simple, easily administered and inexpensive technique for retraining the mind and the body to be able to relax. AT uses visual imagery and body awareness to promote a state of deep relaxation.

Objective: To investigate whether AT when used as an adjunct to Physiotherapy (PT) improves motor performances in PD in comparison with a control group receiving PT alone.

Design: Randomized, controlled, single blinded trial.

Setting: Movement Disorder Clinic and Department of Physiotherapy, Sree Chithira Thirunal Institute of Medical Sciences and Technology in Trivandrum, Kerala, India.

Participants: Patients with PD of grade 2 or 3 of Hoehn & Yahr (H&Y) scale (N = 66).

Interventions: AT group or control group. The techniques were administered by Physiotherapists trained in AT and consisted of 40 sessions per patient over 8 weeks.

Main outcome measure: Motor score subscale of Unified Parkinson's Disease Rating Scale (UPDRS) was used to measure the motor performances. The primary outcome measure was the difference in Motor score subscale of UPDRS scores between Week 1 (pretest score), Week 8 (posttest score), and follow-up at Week 12 after randomization.

Results: The simple main effects analysis showed that the AT group performed better than the control group in weeks 8 and 12 ($P < .005$). Patients in the AT and control groups reported a 51.78% and 35.24% improvement, respectively, in their motor performances in Week 8 compared with that in Week 1, which persisted, in the follow-up (Week 12) as 30.82% in the AT group and 21.42% in the control group.

Conclusions: This study provides evidence that AT when used as an adjunct to PT is more effective than PT alone in improving motor performances in PD patients.

Keywords: Autogenic Training; Parkinson's disease; Physiotherapy.

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Quelle: <https://epub.uniregensburg.de/31087/1/Doktorarbeit%20Maximilian%20Bregenzer.pdf>
f 10.04.2025, 18:30

Bregenzer M (2015) Wirksamkeitsnachweis und Indikationen des Autogenen Trainings - eine **Metaanalyse** nach den Cochrane Kriterien. Dissertation Univ. Regensburg
URN zum Zitieren dieses Dokuments: urn:nbn:de:bvb:355-epub-310876
DOI 10.5283/epub.31087

Zusammenfassung

Die Therapieoption „Autogenes Training“ wird heutzutage immer häufiger bei psychosomatischen und auch somatischen Erkrankungen diskutiert und bereits angewendet. Professor Stetter veröffentlichte im Jahr 2002 eine Metaanalyse, in der er 64 kontrollierte randomisierte klinische Studien zur Anwendung des Autogenen Trainings untersuchte. Hiermit wurde ein erster großer Schritt zur Etablierung dieser Therapieform getan. Aufgrund der noch unzureichenden Datenlage, machte es sich die vorliegende Arbeit zur Aufgabe, die Studienlage von 2002 bis 2013 zu prüfen, deren Ergebnisse mit den Ergebnissen Stetters zu vergleichen und auch neue Anwendungsbereiche zu untersuchen.

Es wurde eine umfangreiche Literaturrecherche in den Datenbanken PubMed, Medline und Psycinfo mit Hilfe der Suchbegriffe „Autogenes Training“, „autogenic training“ und „autogenic relaxation“ durchgeführt. Ausschließlich englisch- und deutschsprachige Artikel wurden herangezogen. Das Studiendesign betreffend wurden nur kontrollierte randomisierte Studien ausgewählt. Aus ursprünglich 36 Suchergebnissen konnten schließlich zehn Studien in die Auswertung einbezogen werden.

Zur Behandlung von **Migräne und Spannungskopfschmerzen** wurden drei Arbeiten untersucht. Hier konnten große Effektstärken bezüglich der Reduzierung der **Kopfschmerzintensität, der Kopfschmerzfrequenz und der Angst** nachgewiesen werden. Somit konnten die Ergebnisse Stetters, der bereits elf Studien untersuchte, bestärkt werden und die Datenlage durch drei weitere Arbeiten ergänzt und verbessert werden.

Ein neues Anwendungsfeld für das Autogene wurde in der Behandlung des **kardialen Syndrom X** entdeckt. In bislang einer Studie konnten große Effekte für die Reduzierung der Symptommfrequenz verzeichnet werden.

Die mittleren bis großen Effekte, die bei der Behandlung von Angstpatienten nach Koronarplastik gefunden wurden, sind aufgrund des Studienprotokolls nicht eindeutig dem Autogenen Training zuzuordnen. Hier stellt sich die Frage, ob sie eventuell unspezifischer Natur sind. Da es bislang die einzige Studie ist, müsste dies in nachfolgenden Studien geklärt werden.

Dass das Autogene Training die Lebensqualität bei Patientinnen mit **Brustkrebs** verbessert, konnten mittlere bis große Effekte belegen. Auch in der Therapie der **Multiplen Sklerose** wurden mittlere bis große Effekte für die Verbesserung der Lebensqualität der Patienten gemessen. Stetter analysierte 2002 ebenfalls eine Studie zur Verbesserung der Lebensqualität bei Krebspatienten. Er konnte keinen signifikanten Nutzen feststellen.

Eine Studie zur Behandlung des **Reizdarmsyndroms** konnte die von Stetter bereits beobachteten positiven Effekte nochmals unterstreichen.

Zur Behandlung der **Rheumatoiden Arthritis** stellte das Autogene Training in einer Studie lediglich die Kontrollbedingung dar. Jedoch konnten mittlere Effektstärken gefunden werden. Für die Verbesserung der Lebensqualität bei Patienten mit Fibromyalgie wurden durch eine Studie große Effekte gezeigt. Stetter musste hingegen in einer Studie feststellen, dass das Autogene Training der Hypnose unterlegen war.

Die vorliegende Arbeit zeigt, dass das Autogene Training bei einigen somatischen und psychosomatischen Fragestellungen eine Therapieoption ist, mit dem gute Effekte erzielt werden können. Da die aktuelle Studienlage noch sehr übersichtlich ist, ergibt sich die Notwendigkeit für weitere Untersuchungen. Zukünftige Studien sollten ein gutes Design und große Fallzahlen aufweisen, um die Etablierung des Autogenen Trainings als geeignete Therapieform weiter voranzubringen.

Quelle: <https://pubmed.ncbi.nlm.nih.gov/34393872/> 30.09.2021

de Rivera L, Ozamiz-Etxebarria N, Dosil-Santamaria M, de Rivera-Monterrey L (2021) Autogenic Training Improves the **Subjective Perception of Physical and Psychological Health and of Interpersonal Relational Abilities**: An Electronic Field Survey During the COVID-19 Crisis in Spain. Front Psychol 2021 Jul 27;12:616426. DOI: 10.3389/fpsyg.2021.616426. eCollection 2021.

Free PMC article

Abstract

Currently, humanity is facing one of the most critical situations of this century, the COVID-19. The adverse effects of the pandemic on the mental health of the population are well known. Fear of illness, confinement, lack of financial resources, or poor social support can influence people's mental state. Despite these risks, several psychological resources may help address this situation. The present study investigated the effectiveness of a self-relaxation techniques known as autogenic training. Autogenic training is a well-known method in Europe for the treatment of anxiety and stress disorders. The practice of autogenic training is also reported to improve neurovegetative and immune regulation. This study focuses on describing how autogenic training is helping its practitioners to cope with the pandemic. Specifically, they report strong beneficial effects on their physical, psychological, and relational health. In total, 75 autogenic training practitioners (41 women), age 22-71, participated in the survey. An ad-hoc questionnaire was developed to collect information on sociodemographic variables, health status during the pandemic, characteristics of their AT practice, and response to the pandemic as outcome variables. The questionnaire was distributed through Google Forms in the first week of September 2020. The results show that there was an increase in the practice of autogenic therapy during the pandemic, especially among women. In addition, the majority of participants (88%) remained healthy during the pandemic. Furthermore, the results show that autogenic training is very useful for physical and psychological health and for a better understanding of others. Therefore, the practice of autogenic training is recommended to people who live moments of anxiety, are afraid of illness, or feel that they have to improve the quality of relationships with others.

Keywords: COVID-19; anxiety; autogenic therapy; autogenics; empathy.

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Quelle: https://www.researchgate.net/publication/358024716_Regular_Practice_of_Autogenic_Training_Reduces_Migraine_Frequency_and_Is_Associated_With_Brain_Activity_Changes_in_Response_to_Fearful_Visual_Stimuli 10.04.2025, 00:34

Dobos D, Szabo E, Baksa D, Gecse K et al (2022) Regular Practice of Autogenic Training Reduces **Migraine Frequency** and Is Associated With **Brain Activity Changes** in Response

Abstract

Several factors can contribute to the development and chronification of migraines, including stress, which is undoubtedly a major trigger. Beyond pharmacotherapy, other treatment methods also exist, including behavioral techniques aiming at reducing patients' stress response. However, the exact brain mechanisms underlying the efficacy of such methods are poorly understood. Our pilot study examined whether the regular practice of autogenic training (AT) induces functional brain changes and if so, how it could be associated with the improvement of migraine parameters. By exploring neural changes through which AT exerts its effect, we can get closer to the pathomechanism of migraine. In particular, we investigated the effect of a headache-specific AT on brain activation using an implicit face emotion processing functional MRI (fMRI) task in female subjects with and without episodic migraine. Our focus was on migraine- and psychological stress-related brain regions. After a 16-week training course, migraineurs showed decreased activation in the migraine-associated dorsal pons to fearful compared with neutral visual stimuli. We also detected decreasing differences in supplementary motor area (SMA) activation to fearful stimuli, and in posterior insula activation to happy stimuli between healthy subjects and migraineurs. Furthermore, migraineurs reported significantly less migraine attacks. These brain activation changes suggest that AT may influence the activity of brain regions responsible for emotion perception, emotional and motor response integration, as well as cognitive control, while also being able to diminish the activation of regions that have an active role in migraine attacks. Improvements induced by the training and the underlying neurophysiological mechanisms are additional arguments in favor of evidence-based personalized behavioral therapies.

Quelle: <https://pubmed.ncbi.nlm.nih.gov/10859603/> 10.04.2025, 18:53

Ernst E, Kanji N (2000) Autogenic training for **stress and anxiety**: a systematic review
Complement Ther Med 2000 Jun;8(2):106-10. doi: 10.1054/ctim.2000.0354.

Abstract

Objective: The aim of this systematic review was to evaluate all controlled trials of autogenic training (AT) as a means of reducing stress and anxiety levels in human subjects.

Method: A search for all published and unpublished controlled trials was carried out in the four major databases, specifically CISCOR, Medline, PsychLit and CINAHL.

Results: Eight such trials were located, all of which are included here. The majority of trials were methodologically flawed. A range of outcome measures were used, with Spielberger's State-Trait Anxiety Inventory being the most popular. Deviations from the accepted technique of AT were conspicuous and trials using the classical AT were in the minority. Seven trials reported positive effects of AT in reducing stress. One study showed no such benefit. Since one trial had used AT in combination with another technique, visual imagery, no conclusion can be drawn about the effect of AT in this case.

Conclusion: No firm conclusions could be drawn from this systematic review. AT, properly applied, remains to be tested in controlled trials that are appropriately planned and executed.

Quelle: <https://pubmed.ncbi.nlm.nih.gov/31477667/> 30.09.2021

Eunju Seo, Soukyoung Kim (2019) Effect of Autogenic Training for **Stress Response**: A Systematic Review and **Meta-Analysis**. J Korean Acad Nurs 2019 Aug;49(4):361-374. doi: 10.4040/jkan.2019.49.4.361

Abstract

Purpose: This study was conducted to evaluate the effectiveness of autogenic training on stress responses through a systematic review and meta-analysis.

Methods: A systematic search was conducted using eight core electronic databases (Embase, CENTRAL, Medline, CINAHL, PsycInfo, DBpia, KISS, and RISS). To estimate the effect size, a meta-analysis of the studies was performed using RevMan 5.3.5 program.

Results: A total 21 studies out of 950 studies were included in the review, and 11 were included for meta-analysis. These studies showed that autogenic training decreased anxiety and depression, and increased the high frequency of heart rate variability. Calculations to understand the effect of autogenic training on anxiety, through a meta-analysis, observed a reduction effect of anxiety score by 1.37 points (n=85, SMD=-1.37: 95% CI -2.07 to -0.67), in the studies on short-term intervention targeting healthy adults. On the other hand, similar calculations to understand the effect of autogenic training on depression observed, a reduction effect on the depression score by 0.29 point (n=327, SMD=-0.29: 95% CI -0.50 to -0.07), in the studies on long term intervention targeting the patient group.

Conclusion: Autogenic training is effective for adults' stress management, and nurses will be able to effectively perform autogenic training programs for workers' stress relief at the workplace.

Keywords: Autogenic Training; Meta-Analysis; Stress, Physiological; Stress, Psychological; Systematic Review.

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Quelle: https://inter-uni.net/wp-content/uploads/2023/07/SZ_Fehrmann_Aut_Training_Hautleitwert.pdf 23.08.2023

Fehrmann Anja (2007) Autogenes Training und **relativer Hautleitwert**. Eine quasiexperimentelle Fallbeobachtungsstudie. Interuniversitäres Kolleg.

Zusammenfassung der Arbeit (redaktionell bearbeitet)

Einleitung Hintergrund und Stand des Wissens

Autogenes Training wird immer mehr zum Abbau stressbedingter Gesundheitsstörungen eingesetzt. In der Datenbank Pubmed finden sich allein unter dem Begriff „Autogenic Training“ 1030 Literaturhinweise. Der Erfolg eines solchen Einsatzes ist mit Mitteln der konventionellen Medizin schwerlich messbar, weil Gesundheitsstörungen im emotionalen Formenkreis zunächst eine kognitive Passage benötigen, um dem Heilberufler auch berichtet werden zu können. Ein solcher Erfolg wird häufig durch subjektive Befindlichkeiten ermittelt. Es werden Retrospektive- und Verlaufskontrolle in unterschiedlichen Befindlichkeitsstufen angegeben. Mithin stellt sich das Problem der objektiven Vergleiche zwischen Zuständen vor, während und nach der Trainingsphase. Als objektiv gelten bisher die Messungen von physiologischen Parametern, wie z.B. Herzfrequenz, Blutdruck, Muskelspannung (EMG) und Hirnstrommessungen (EEG) (Eschweiler & Wild et al, 2003). Sie sind ein Biosignal des gegenwärtigen Stresszustandes. Bekannt ist ebenso, dass solche Werte unter Berücksichtigung des Biorhythmus Schwankungen wie z.B. Tag und Nacht unterliegen.

Autogenes Training als Entspannungsmethode hat einen nachweisbaren Einfluss auf physiologische Prozesse. Der Literatur sind Untersuchungen und Analysen zu entnehmen, welche physiologische Parameter, wie z.B. den Hautwiderstand (psychogalvanischer Reflex) heranziehen, um eine Wirkung des Trainings festzustellen (Hoffmann, Stetter et al., 2000).

Teilnehmerinnen/Durchführung Bei der vorliegenden Untersuchung handelt es sich um eine quasiexperimentelle Fallbeobachtungsstudie mit fünf Teilnehmerinnen einer realen Übungsgruppe „Autogenes Training“, der Ahab-Akademie. Das Alter der Teilnehmerinnen betrug bei der jüngsten Teilnehmerin 26 Jahre und bei der ältesten Teilnehmerin 40 Jahre. Der Medianwert lag damit bei 28 Jahren. Die Teilnehmerinnen gaben ihr Einverständnis und versicherten, an keiner schwerwiegenden gesundheitlichen Störung zu leiden. Der Untersuchungszeitraum umfasste sieben Wochen, in dem die Teilnehmerinnen in wöchentlichen Abständen an einer 90 min. Seminareinheit teilnahmen. Die Messung erfolgte jeweils am Anfang und nach Beendigung der Übungsabfolgen. Diese bestanden aus aufeinander aufbauenden Formeln der Grundstufe des Autogenen Trainings. Nach einer erlernten Formel folgte in der darauffolgenden Woche eine Wiederholung dieser Sequenz und eine neue Formel wurde erlernt. Die Teilnehmerinnen hatten die Aufgabe, die Übungen zu Hause zu wiederholen. Dazu erhielten die Probandinnen ein Übungsbuch. Es wurden Übungsdauer, Anzahl der Wiederholungen der einzelnen Formeln und die Befindlichkeit (vor und nach dem Training) erfasst. Methodologisch handelt es sich um Volumenwiderstandsmessungen, die über sechs flächige Hautelektroden und 22 Kanäle/Segmente ermittelt wurden. ...

Ergebnisse Bei den Teilnehmerinnen wurden überwiegend positive, aber auch wenige negative Veränderungen während der Verlaufszeit festgestellt. Bei den Personen mit einem schlechteren Ausgangswert erfolgte regelmäßig eine Verbesserung der Funktionswerte in Richtung Optimum. Im weiteren Verlauf der Sitzungen wurde die gleiche Veränderungsrichtung beibehalten, was teilweise zu einer geringen Entfernung vom Optimum führte. Wenn hingegen der Ausgangswert nahe dem physiologischen Optimum lag, führte dies zu einer geringen Veränderung der Funktionswerte hin zum physiologischen Optimum. Eine regelmäßige Übungsdauer führte zu einer sichtbaren Veränderung der Funktionswerte. Messunterbrechungen führten teilweise zur Verschlechterung der Werte. Nachdem das Optimum erreicht wurde, kam es zu einer Veränderung der Werte. Bei Unterbrechung der Messreihe durch ein bis zwei Sitzungen, zeigt sich ein Einbruch der Funktionswerte. Alle Teilnehmer endeten im Funktionsparameter „Basis“ Mittelwert in einem Hypofunktionsstadium, welches auf der Mittelwertachse zwischen -20 und -60 anzusiedeln ist. Dies entspricht der 3. Risikostufe Im Bezug auch die Nebenfrage: „Inwieweit die Befindlichkeiten mit den objektiven Werten zusammen hängen?“, ließ sich feststellen, sowohl ein subjektiv hoher Anspannungsgrad als auch mäßig entspannte Befindlichkeit führte zu positiven Veränderungen der Schwere-Autosuggestion (ziemlich positive Wirkung), (sehr gute Wirkung). Dies stand auch im Zusammenhang mit der Kontinuität des Trainings. Bei einer Probandin tauchte eine objektive Verschlechterung der Werte im Zusammenhang mit einer subjektiv guten Wirkung der Schwere auf. ...
Eine höhere Teilnehmerzahl mit einer Vergleichsgruppe, die in die homogene Gruppe passt und an keinem Training teilnimmt, wäre zu untersuchen, um die Beobachtungen und Ergebnisse zu verifizieren.

Diskussion Die vorgenommene Untersuchung zeigt, dass Autogenes Training einen Einfluss auf den Hautleitwert und den Volumenwiderstand der Haut hat. Damit liegt die Vermutung nahe, dass AT über das vegetative Nervensystem regulatorische Änderungen bewirken kann. ... Da das vegetative Nervensystem die Schaltstelle der Grundregulation ist und über

bioelektrische Bahnen mit Haut, Gewebe, spinale Nervenstränge des Rückenmarks und den Organkomplexen verbunden ist, ist hier eine potentielle Zielstelle für Informations-Übertragung zu suchen, wenn die Selbstregulation eines Organismus erreicht werden soll. Die unspezifische Reizübertragung des Autogenen Trainings erlaubt dem System, sein Ausgangspotential zu verändern und damit ein neues Reaktionspotential zu schaffen, das als komplexes System in der Lage ist, unmittelbar auf äußere Faktoren und Noxen zu reagieren. Ein solcher ökonomischer Grundtonus ist der anzustrebende Zustand, der durch Autogenes Training hervorgerufen werden sollte. Dieser diente auch in der Untersuchung als Optimum der Funktionsfähigkeit. Im Verlauf der Untersuchung waren unterschiedliche Funktionsveränderungen zu beobachten, wie z.B. Pendeln zwischen zwei Polen der Hyper- und Hypofunktion und gleichförmiges Streben zum Optimum bzw. ein darüber Hinausschießen. Entscheidend sind aber die Ausgangswerte zu Beginn der Messreihe. Grundsätzlich lässt sich festhalten, dass jeder Körper individuell entsprechend des Selbstorganisationsprozesses eines komplexen Systems auf das Training reagiert. Es lassen sich jedoch auch allgemeine Schlussfolgerungen ziehen, die trotz der individuellen Reaktionen bei einigen Teilnehmerinnen zu beobachten waren. Dies könnte mit dem Gesetz der nicht linearen aber dennoch erkennbaren Ordnung in Verbindung gebracht werden. ...

Quelle: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8548271/> 10.04.2025, 18:58

Kohlert A, Wick K, Rosendahl J (2021) Autogenic Training for Reducing **Chronic Pain**: a Systematic Review and **Meta-analysis** of Randomized Controlled Trials. *Int.J. Behav. Med.* 29, 531–542 (2022). DOI: 10.1007/s12529-021-10038-6

Abstract

Background Autogenic training (AT) is frequently used as therapeutic approach in multimodal pain therapy. The aim of this systematic review and meta-analysis is to investigate the efficacy of AT in individuals suffering from chronic pain in comparison to passive and active control groups.

Methods A comprehensive literature search in Medline, Web of Science, PsycInfo, and PubPsych and manual searches (last search April 7, 2021) were conducted to locate randomized controlled trials (RCTs). Treatment guidelines and references of relevant articles and previous reviews were checked. ProQuest Dissertations and Theses Full Text database, DART-Europe E-theses Portal, Networked Digital Library of Theses and Dissertations (NDLTD), and the Theses Database of the German National Library were screened to identify any unpublished material.

Results A total of 13 eligible studies ($k = 15$ comparisons) including 576 participants were identified. Random-effects meta-analyses revealed a significantly positive, moderate effect of AT on the primary outcome pain compared to passive control groups ($g = 0.58$, 95% CI [0.36; 0.79], $k = 9$, $I^2 = 0\%$). In comparison with other psychological interventions, no difference was found ($g = -0.05$, 95% CI [-0.30; 0.20], $k = 6$, $I^2 = 0\%$). Sensitivity analyses proved the robustness of findings. Overall risk-of-bias judgment was ‘some concerns’ in the majority of studies.

Conclusions Beneficial effects of AT on pain reduction were demonstrated, but findings are prone to bias. Furthermore, high methodological quality RCTs are needed to strengthen the promising evidence of AT for individuals with chronic pain.

<https://pubmed.ncbi.nlm.nih.gov/7811786/> 09.04.2025, 23:12

Linden W (1994) Autogenic training: a narrative and quantitative **review of clinical outcome**.

Abstract

This review of controlled outcome research on Autogenic Training complements the literature by pooling narrative and quantitative approaches, by including only studies with experimental controls, by integrating the English and German literature, and by adding research findings published since the last review. Whereas previous reviews have already reported positive effects of Autogenic Training for migraine, insomnia, and test anxiety, additional supportive findings for angina pectoris, asthma, childbirth, eczema, hypertension, infertility, Raynaud's disease, and recovery from myocardial infarction are discussed here. The impact of protocol variations on outcome is described, and the specificity of Autogenic Training relative to other stress management techniques is highlighted. Quantitative findings suggested that Autogenic Training was associated with medium-sized pre- to posttreatment effects ranging from $d = .43$ for biological indices of change to $d = .58$ for psychological and behavioral indices thus matching effect sizes for other biobehavioral treatment techniques like biofeedback and muscular relaxation. Length of treatment did not affect clinical outcome. The discussion emphasizes how narrative and quantitative strategies complement one another.

https://www.researchgate.net/publication/223990156_Cerebral_somatic_pain_modulation_during_autogenic_training_in_fMRI 10.09.2025, 00:15

Naglatzki RP, Schlamann M, Gasser Th, Ladd ME, Sure U, Forsting M, Gizewski ER (2012) **Cerebral somatic pain modulation** during autogenic training in fMRI. European journal of pain (London, England) 16(9):1293-301. DOI:10.1002/j.1532-2149.2012.00138.x

Abstract

Functional magnetic resonance imaging (fMRI) studies are increasingly employed in different conscious states. Autogenic training (AT) is a common clinically used relaxation method. The purpose of this study was to investigate the cerebral modulation of pain activity patterns due to AT and to correlate the effects to the degree of experience with AT and strength of stimuli. Thirteen volunteers familiar with AT were studied with fMRI during painful electrical stimulation in a block design alternating between resting state and electrical stimulation, both without AT and while employing the same paradigm when utilizing their AT abilities. The subjective rating of painful stimulation and success in modulation during AT was assessed. During painful electrical stimulation without AT, fMRI revealed activation of midcingulate, right secondary sensory, right supplementary motor, and insular cortices, the right thalamus and left caudate nucleus. In contrast, utilizing AT only activation of left insular and supplementary motor cortices was revealed. The paired t-test revealed pain-related activation in the midcingulate, posterior cingulate and left anterior insular cortices for the condition without AT, and activation in the left ventrolateral prefrontal cortex under AT. Activation of the posterior cingulate cortex and thalamus correlated with the amplitude of electrical stimulation. This study revealed an effect on cerebral pain processing while performing AT. This might represent the cerebral correlate of different painful stimulus processing by subjects who are trained in performing relaxation techniques. However, due to the absence of a control group, further studies are needed to confirm this theory.

Quelle: <https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-020-01336-3#citeas> 15.09.2023

Ramirez-Garcia, M.P., Leclerc-Loiselle, J., Genest, C. et al. (2020). Effectiveness of autogenic training on psychological well-being and quality of life in adults living with **chronic physical health problems**: a protocol for a systematic review of RCT. *Syst Rev* 9, 74 <https://doi.org/10.1186/s13643-020-01336-3>
(Université de Montréal, Canada)

Abstract

Background

Autogenic training is a relaxation technique that uses systematic exercises to induce a general disconnection of the organism. It is used in conjunction with conventional medical care as part of disease management to relieve symptoms associated with chronic health problems and to improve well-being. The purpose of this systematic review is to evaluate the efficacy of autogenic training on psychological well-being, quality of life, and adverse effects in people living with chronic physical health problems.

Methods

The methodology used follows the recommendations of the Cochrane Handbook for Systematic Reviews of Interventions. Studies, published up to December 31, 2019, will be identified through searches in the following databases: MEDLINE, Web of Science, EMBASE, SCOPUS, PsychINFO, CINAHL, EBM Reviews, Google Scholar, Dissertations & Theses Global, Open Access Theses and Dissertations, OpenGrey, E-Theses Online Service, Grey Literature Report, eScholarship@McGill, Papyrus, and CorpusUL. All studies of randomized controlled trials that assess autogenic training as an intervention to improve psychological well-being and quality of life in adults aged 18 and older living with one or more chronic physical health problem will be considered eligible. The study selection, the data collection, and the evaluation of the risk of bias will be conducted independently and in duplicate by two reviewers. RoB 2 tool will be used to assess the risk of bias. Discrepancies will be resolved through discussion. A tabular and narrative synthesis of data is planned, and a meta-analysis will be done according to the quality of data. The primary outcomes will be general psychological distress, depression, and anxiety, and the secondary outcomes will be quality of life and adverse effects. The present protocol of systematic review is reporting following MECIR standards for the reporting of protocols and the PRISMA-P recommendations.

Discussion

Autogenic training appears to be a promising therapy to improve psychological well-being and quality of life in people living with chronic physical health problems, but no recent reports have synthesized the available evidence in this population. The results of this review will examine and synthesize the evidence on the benefits and harms of autogenic training on psychological well-being and quality of life in people living with chronic physical health problems, thus supporting the development of best practices for complementary approaches.

Quelle: <https://pubmed.ncbi.nlm.nih.gov/30012394/>

Seo E, Hong E, Choi J, Kim Y, Brandt C, Im S (2018) Effectiveness of autogenic training on **headache**: A systematic review. *Complement Ther Med*. 2018 Aug;39:62-67.
DOI: 10.1016/j.ctim.2018.05.005.

Abstract

Purpose: To investigate the impact of length of autogenic training (AT) use, alone and with the addition of adjunct treatments, on intensity and duration of primary headache in adults age 19 and older.

Methods: We searched articles published in English and Korean from 1926 to 2016. A search of seven domestic and foreign databases was conducted from September 25, 2016 to December 30, 2016 using the search terms "autogenic training," "autogen," "relaxation," and "headache." The search was documented according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The search yielded a total of 262 papers; a multi-step screening and selection process ultimately yielded six articles of randomized controlled trials (RCTs) for the systematic review. Cochrane's Risk of Bias Tool was used to evaluate the quality of the selected papers.

Results: Five of the six studies demonstrated statistically significant reduction in headache by AT-only or biofeedback-assisted AT. The reviewed studies varied in characteristics of subjects, length of autogenic training and practice, use of adjunct therapies, and use of headache measures.

Conclusions: The small number of studies retrieved in this review, with their variations in AT interventions used, in AT training/practice time, and headache measures used, did not facilitate rigorous evaluation of the effectiveness of specific AT approaches nor of the optimum length of AT practice for reduction of headache. More research is needed on the effectiveness of AT-only for headache, the most effective duration of autogenic training and practice, and the type(s) of headache for which it is most effective.

Keywords: Autogenic training; Headache; Systematic review.

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& <https://pubmed.ncbi.nlm.nih.gov/25529912/> 30.09.2021

Seung-Joo Lim , Chunmi Kim (2014) Effects of autogenic training on **stress response and heart rate variability** in nursing students. Asian Nurs Res (Korean Soc Nurs Sci) 2014 Dec;8(4):286-92. doi: 10.1016/j.anr.2014.06.003. Epub 2014 Nov 3.

Free article

Abstract

Purpose: This study was undertaken to confirm the effects of autogenic training (AT) on stress response and heart rate variability in nursing school students experiencing stress related to clinical training.

Methods: The study was carried out from September 2012 to April 2013 in a quasi-experimental nonequivalent control group using a pretest-posttest design. The participants were 40 nursing students in their third year at either of two nursing colleges. All consented to participate. Nineteen nursing students at one college were assigned to the experimental group and underwent the 8-week AT program, and the other 21 were assigned to the control group and did not undergo any training. Stress response was assessed by questionnaire and HRV was measured three times, that is, before the program, at the end of the program, and 6 months after the end of the AT program.

Results: A significant time/group interaction was found for stress response ($F = 4.68$, $p = .012$), a subjective indicator. However, no significant interaction was found for the objective indicators of heart rate variability, normalized low frequency ($F = 2.59$, $p = .090$), normalized

high frequency ($F = 2.59$, $p = .090$), or low frequency to high frequency ratio ($F = 1.38$, $p = .257$).

Conclusion: The results suggest that AT provides an acceptable approach to stress reduction in nursing students.

Keywords: autogenic training; heart rate; nursing students; stress.

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Quelle: <https://www.cureus.com/articles/348888-effects-of-autogenic-training-on-pain-modulation-in-burning-mouth-syndrome-a-preliminary-study#!/> , 10.04.2025, 19:03

Takizawa K, Ozasa K, Shimizu K, et al. (March 13, 2025) Effects of Autogenic Training on **Pain Modulation in Burning Mouth Syndrome**: A Preliminary Study. Cureus 17(3): e80549. doi:10.7759/cureus.80549

Abstract

Introduction and aim: Burning mouth syndrome (BMS) is a chronic pain condition lasting more than 3-6 months. While various pharmacological treatments are used, no definitive treatment exists. Autogenic training (AT), a relaxation technique, helps manage stress-related pain by influencing brain regions involved in emotion regulation and cognitive control. Reduced conditioned pain modulation (CPM) efficiency occurs in chronic pain conditions, and in BMS, higher state anxiety negatively impacts the descending pain modulation system. This study aimed to evaluate the effect of AT on spontaneous pain reduction in patients with BMS and determine if AT improves CPM, particularly in those with chronic BMS.

Methods: This study included 28 patients diagnosed with BMS, along with 17 healthy volunteers. Based on the duration the patients experienced the pain, those with BMS were categorized into subchronic (≤ 6 months) and chronic (> 6 months) groups. All participants' temporal summation of pain (TSP), CPM, and pain intensity were recorded before and after the AT intervention. TSP was assessed through repeated electrical stimulation to the chin and was calculated as the difference between the visual analog scale scores after 10 electrical stimuli and the score following the first stimulus. CPM was calculated as the difference in TSP at baseline and following the conditioning of painful (47°C) or non-painful (40°C) stimuli applied to the non-dominant hand, serving as the conditioning stimulus (CS). This study was approved by the Ethical Committee of the Nihon University School of Dentistry (EP21D002) and conducted in accordance with the Declaration of Helsinki.

Results: AT significantly reduced spontaneous pain in the chronic BMS group but not in the subchronic group. Furthermore, CPM improved only in patients with chronic BMS during painful stimuli, suggesting enhanced pain modulation. Correlation analysis between BMS duration and CPM revealed a negative correlation between painful CS CPM and disease duration ($r = -0.411$, $p < 0.05$), but no correlation when the CS was not painful.

Conclusion: AT can reduce pain in patients with chronic BMS (lasting more than six months) at least partly by enhancing the patients' pain modulation and emotional regulation, making it a potential adjunctive therapy for chronic cases.

https://www.researchgate.net/publication/388990858_Effects_of_autogenic_relaxation_training_and_progressive_muscle_relaxation_on_anxiety_an_EEG-based_experimental_study
09.04.2025, 23:38 - dort Volltext als pdf zum Download

Vasu Deepak Th, Chua Wei Yeh (2025) Effects of autogenic relaxation training and progressive muscle relaxation on **anxiety**: an EEG-based experimental study. Neuroscience Research Notes 8(1) . DOI:10.31117/neuroscirn.v8i1.378 (Universiti Tunku Abdul Rahman, Malaysia)

Abstract

Younger generations are shown to have a high prevalence rate of anxiety. This study examined the changes in the alpha brain signals based on autogenic relaxation training (ART) and progressive muscle relaxation (PMR) to determine their efficacy in reducing anxiety symptoms among undergraduate students. This study was a randomized controlled trial in which participants were randomly allocated to either the ART group or the PMR group. Seven supervised sessions of ART and PMR were conducted over three weeks, with each session lasting approximately 20 minutes. Electroencephalography (EEG) and Beck Anxiety Inventory scores (BAI) were used as outcome measures to assess the effectiveness of relaxation training on anxiety before and after the interventions. The study included 30 participants with a mean age of 19.60 ± 0.84 years. A paired sample t-test revealed that relaxation training significantly reduced anxiety. Additionally, ART demonstrated statistically significant effects in reducing anxiety ($p=0.004$), showing a greater decrease in post-intervention mean BAI scores compared to PMR. However, the difference between ART and PMR was not statistically significant ($p=0.110$). ART showed a greater reduction in post-intervention BAI scores, while PMR showed greater positive changes in EEG findings. The study outcome is an enhanced evidence-based physiotherapy program that may be used by physiotherapists in the neurological rehabilitation with anxiety.

https://www.researchgate.net/publication/374194371_EFFECTIVENESS_OF_AUTOGENIC_TRAINING_ON_REDUCING_ANXIETY_DISORDERS_A_COMPREHENSIVE_REVIEW_AND_META-ANALYSIS 09.04.2025, 23:23 – dort Volltext als pdf zum Download.
DOI:10.46827/ejpe.v10i3.5059

Yumkhaibam Ahsan Huda, Farooque Sm, Bhowmik Sanjib Kumar (2023) Effectiveness of Autogenic Training on reducing **Anxiety Disorders**: a Comprehensive Review and **Meta-Analysis**. European Journal of Physical Education and Sport Science 10(3): 124-141 (Tripura University, India)

Abstract

Background: Autogenic training (AT) is a relaxation technique that has garnered attention for its potential to reduce anxiety and improve psychological well-being.

Objectives : This study aims to synthesize the findings from a diverse range of studies investigating the relationship between autogenic training and anxiety disorder across different populations and settings. **Methods:** A comprehensive review of 162 studies, including randomised controlled trials (RCTs), non-randomized controlled trials (N-RCTs), surveys, and meta-analysis, was conducted out of these 29 studies were selected which is directly related to the objectives of the studies. Participants in the studies had conditions such as cancer patients, bulimia nervosa, stroke survivors, coronary angioplasty, nursing students, healthy volunteers, athletes, and so on. Anxiety levels were measured before and after the AT intervention using a variety of anxiety assessment scales, including the State Trait Anxiety Inventory (STAI) and the Hospital Anxiety and Depression Scale (HADS). The formats, duration, and delivery of the interventions varied, with some studies utilising guided sessions by professionals and other self-administered practises.

Results: The combined findings of these studies revealed consistent trends in the beneficial effects of autogenic training on anxiety reduction. AT was found to be effective in reducing anxiety symptoms across a wide range of populations and settings. Following AT interventions, participants reported reduced anxiety, improved mood states, and improved coping mechanisms. AT was found to be superior to no treatment or a comparable intervention in a number of cases.

Conclusion: The body of evidence supports autogenic training as a non-pharmacological approach to reducing anxiety and improving psychological well-being. Despite differences in methodology and participant profiles, the studies show that AT has a positive impact on a wide range of populations. The findings merit further investigation and highlight AT's potential contribution to anxiety management strategies.

2 Zusammenstellungen, nach Beschwerden gelistet:

Quelle: http://www.autogenictherapy.com.au/clinical_evidence.html 2019 und 10.04.2025, 19:18

Clinical Evidence

Information on this page by kind permission of Ruth Naylor, BA, MS, MBA (Hons), AA, Dip AT of British Autogenic Society.

❖ Autogenic Training (AT) leads to self-induced calmness in mind and body and can lead to clearer thinking about problems and new insights.

Psychology and Psychotherapy: Theory, Research and Practice (2009), 82, 403-419.
Yurdakul, Hottum and Bowden

❖ AT induces the Relaxation Response.

Behavioral Medicine, Volume 15, pages 125-132, 1989.

❖ Relaxation can be an appropriate and relevant therapeutic tool to counteract several stress-related disease processes and certain health-restrictions, particularly in certain immunological, cardiovascular, and neurodegenerative diseases/mental disorders.

Medical Science Monitor, Volume 9, pages RA23-34, February 2003.

❖ Tension headache and mixed-type headache frequencies are reduced in the first month of learning AT, while migraine headache frequency reduces after 3 months and drug consumption also reduces.

Headache: The Journal of Head and Face Pain, Volume 43, page 251, March 2003.

❖ Acute pain of migraine headaches decreases and the likelihood that a migraine aura will become a full blown migraine is much lower when sufferers practice AT.

Headache: The Journal of Head and Face Pain, Volume 47, pages 371-383, March 2007.

❖ Emotional distress signs and anxiety decrease whilst your brain's ability to calm responses to stress improves, bringing positive and stable changes in anxious and 'blue' personality traits and increased resilience.

Stress Medicine, Volume 16, pages 263-268, 2002.

❖ Irritable bowel calms down and most symptoms are significantly reduced.
Behaviour Research and Therapy, Volume 5, pages 541-546, May 2002.

❖ Anxiety can negatively influence the course of many disabilities so the benefits accrued from practising a stress management method may have generalized effects.
Archives of Physical Medicine and Rehabilitation, Volume 67, pages 375-379, June 1986.

❖ Children and adolescents with behavioral and emotional problems have improvements in goal attainment after learning AT.
Journal of the American Academy of Child & Adolescent Psychiatry, Volume 42, page 1046-1054, 2003.

❖ Blood pressure and heart rate reduce when people practice AT.
Perceptual and Motor Skills, Volume 83, pages 1395-141, December 1996.

❖ Anxiety for university level students are significantly reduced with consistent AT practice.
Journal of Advanced Nursing, Volume 53, pages 729-735, 2006.

❖ Elderly nursing home patients have a better quality of life once they practice AT.
Zeitschrift für Gerontologie und Geriatrie, Volume 35, pages 157-65, 2002.

❖ Adolescent alcoholics discover they have more control over their own behaviour than they previously thought after they learn AT with biofeedback.
Journal of Substance Abuse Treatment, Volume 14, pages 55-61, Jan-Feb 1997.

❖ Learning and practicing AT can increase your ability to recall your dreams!
Perceptual and Motor Skills, Volume 84, pages 1305-1307, June 1997.

❖ After Dolphin Helicopter and Hercules Aircraft pilots learn AT exercises using biofeedback techniques, they make far fewer flying mistakes during emergency flying conditions.
International Journal of Aviation Psychology, Volume 11, pages 303-315, 2002.

❖ Biathletes' postural control and hold stability in the rifle competition, found their standing shooting was improved after learning AT and imagery training.
Research Quarterly for Exercise and Sport, Volume 74, pages 337-342, September 2003.

❖ Exhausted care givers find that subjective psychosomatic symptoms, such as headache, palpitation, dizziness, sleep disorders, irritation, are reduced or disappear, and that they are able to ask for help for themselves much more easily after practising AT.
Japanese Journal of Autogenic Therapy, Volume 18, pages 56-63, August 2000.

AT also works effectively side by side with other medical practices for illnesses made worse by stress:

❖ Cancer and HIV patients increase their autoimmune responses, sleep better and feel better about themselves.

Kermani, K 'Stress, Emotions, Autogenic Training and AIDS: A Holistic Approach to management of HIV-infected individuals', Holistic Medicine, Volume 2, pages 203-215, 1987.

European Journal of Oncology Nursing, Volume 8, pages 61-65, 2004.

❖Cancer patients report significant reduction in anxiety and increases in 'fighting spirit' after learning AT, and they report an improved sense of coping and along with improved sleep.
European Journal of Cancer Care, Volume 11, pages 122-130, June 2000.

❖Depression clears up more quickly and doesn't come back as often.
European Psychologist, Volume 4, pages 11-18, 2004.

❖At 4 year follow up, people with high blood pressure kept their pressure down if they practiced AT.
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American Chiropractor, pages 50, 52, Fall 2004.

❖Chronic and acute pain are reduced, and chronic pain patients reduce their physician visits by 36%.
American Journal of Nursing, Volume 8, pages 75-76, August 2004.
The Clinical Journal of Pain, Volume 2, pages 305-310, 1991.

❖Autogenic Training reduces anxiety after coronary angioplasty surgery.
Kanji, N., White A.R., Prof. Ernst E., American Heart Journal, Volume 147, pages K1-K4, 2004.

❖A case study of a young anorexic woman reports that after learning AT she had less preoccupation with food, less interpersonal tension, greater self-esteem, and weighed more.
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❖Children and adolescents with type 1 diabetes mellitus have fewer problems with attention, less test-anxiety and less aggression and nervousness when they use AT.
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❖Multiple Sclerosis patients report more energy and vigor and less limitations in their roles from physical and emotional problems at the end of a 10 week AT program.
Journal of Behavioral Medicine, Volume 28, pages 249-256, June 2005.

❖Asthmatic children practicing AT with their mothers said they experienced deep relaxation, better sleep, reduced wheezing, and improved peak-flow rates.
Japanese Journal of Autogenic Therapy, Volume 24, pages 1-7, March 2005.

❖A study of fire services workers found that AT is effective for reducing disturbance of cardiac autonomic nervous activity and decreasing the impact of psychological issues which are secondary to post-traumatic stress disorder.
Journal of Psychosomatic Research, Volume 60, pages 439-444, 2006.

❖ Meta-analysis of studies of AT found that tension headache, mild-to-moderate essential hypertension, coronary heart disease, asthma bronchiale, somatoform pain disorder (unspecified type), Raynaud's disease, anxiety disorders, mild-to-moderate depression/dysthymia, and functional sleep disorders all improve when people practice AT. *Applied Psychophysiology and Biofeedback*, Volume 27, pages 45-96, 2002.

❖ Pressure in the eyes (IOP) is reduced for people with open-angle glaucoma who practice AT along with special exercises in ocular relaxation and imagination of aqueous humour drainage. *Ophthalmologica*, Volume 209, pages 122-128, 1995.

❖ Stress levels of couples undergoing infertility treatment went down. *Journal of Psychosomatic Research*, Volume 27, pages 145-51, 1983.

Quelle: <https://www.autogenic-therapy.org.uk/journal-articles/> (HP Brit.Soc.AT) 28.04.19, 23:35

Lim & Kim (2014) AT provides an acceptable approach to stress reduction in nursing students. *Asian Nursing Research* 8(4), 286-292.

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