ORIGINAL RESEARCH

Effects of Eurythmy Therapy in the Treatment of Essential Arterial Hypertension: A Pilot Study

身心疗法治疗原发性动脉性高血压的疗效：一项初步研究

Efectos del tratamiento eurítmico sobre el tratamiento de la hipertensión arterial esencial: un estudio piloto

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Citation
Glob Adv Health Med. 2013;2(1):24-30.

Key Words
Anthroposophic medicine, eurythmy therapy, hypertension, mindfulness-based, blood pressure

Disclosures
The authors completed the ICMJE Form for Disclosure of Potential Conflicts of Interest and none related to this publication was reported.

ABSTRACT

Introduction: Although eurythmy therapy (ET) has been used in the context of anthroposophic medicine (AM) for the treatment of, among other conditions, arterial hypertension (AH) for more than 80 years, there are as yet no studies on its effectiveness on disease entity. However, it has been shown that ET can increase heart rate variability comparably to ergometer training.

Objective: To determine whether a 10-week course of ET has an impact on AH and if so, to determine the strength of the effect. The impact of ET on state-autonomic regulation, self-regulation, internal coherence, and quality of life is also explored.

Methods: Consecutive inclusion of 9 subjects (6 female, 3 male, mean age of 64 years, SD 8.26) with AH diagnosed by their general practitioners. Inclusion criteria: no or unchanged antihypertensive medication from 4 weeks prior to the start of the study until the end of the study. ET was carried out with weekly instruction along with a daily, home-based program for 10 weeks with specific exercises. Twenty-four–hour blood pressure (BP) measuring was carried out, and the questionnaires were administered before and after the intervention. In addition, after a further 6 months during which 8 of the 9 patients carried on with the exercises of their own accord, the aforementioned parameters were assessed for a third time.

Results: Parameters of the 24-hour BP measurements show a moderate, but not significant, improvement immediately after the intervention and 6 months after the intervention. After the 10-week intervention, we saw an improvement of the State-autonomic Regulation questionnaire, the subscale on "Rest/Activity regulation," of the Self-regulation questionnaire, and the subscale "Initiative and Interest" of the Herdecke Quality of Life Questionnaire (HLQ) (all $P<.045$). After the 6-month post-study observation period, the aforementioned parameters improved further still, and an additional, significant improvement was seen for the Trait-autonomic Regulation subscale "Rest/Activity regulation," the HLQ-sum score, and the HLQ subscales "social interaction," "mental balance," and "physical ability."

Conclusion: A 10-week course of ET does not result in a significant improvement in BP. The average BP measurements improved post-intervention by an absolute 3.2/2.0 mmHg and after 6 months of independent continuation of ET by 6.3/4.4 mmHg (systolic/diastolic). Despite the small group size, the regulation and quality-of-life parameters improved significantly after the intervention and further still after the 6-month observation period. The results need to be validated with larger patient collectives and control groups.

背景
简介： 尽管在长逾 80 年的时间里，曾在人智学医学 (anthroposophic medicine, AM) 中使用过身心疗法 (eurythmy therapy, ET) 来治疗动脉性高血压 (arterial hypertension, AH) 等疾病，但尚未就其在疾病实体方面的疗效进行过任何研究。然而，现在已经表明，ET 能够像测功仪 (ergometer training) 一样增加心率变异性。
目标： 判断为期 10 周的 ET 疗程是否会对动脉性高血压产生影响，如果会，确定影响的强度。此外，还要探索 ET 对状态自主调节、自我调节、内部一致性和生活质量的影响。
方法： 连续纳入 9 名被全科医生诊断患有 AH 的受试者（6 女，3 男，平均年龄 64 岁，SD 为 8.26）。纳入标准：从研究开始前 4 周至研究结束，未服用抗高血压药物，或抗高血压药物无变化。ET 随每周一次的说明一起进行，外加每天一次的家庭程序和指定锻炼，共持续 10 周。患者需接受二十四小时血压 (blood pressure, BP) 测量，并在干预前后，填写调查问卷。此外，在此后 6 个月时间里，9 名患者中有 8 名自行进行锻炼，并接受前述参数的第三次评估。
结果： 24 小时 BP 测量参数表明，在干预后以及干预后 6 个月，患者出现适度（但不明显）的改善。在为期 10 周的干预后，我们发现状态自主调节调查问卷、自我调节调查问卷的"作 / 息调节"分量表以及赫尔德克生活质量调查问卷 (Herdecke Quality of Life Questionnaire, HLQ) 的"主动性和兴趣"分量表（所有 $P<.045$）出现改善。在为期 6 个月的研究后观察期后，前述参数进一步改善，特质自主调节"作 / 息调节"分量表、HLQ-Sum 分数和 HLQ"社会互动"分量表、"心理平衡"分量表和"体能"分量表均出现其他明显改善。
结论： 为期 10 周的 ET 疗程并未使得 BP 出现明显改善。BP 测

量平均值在干预后改善了 3.2/2.0 毫米汞柱（绝对值），而在独立继续进行 ET 6 个月后，改善了 6.3/4.4 毫米汞柱（收缩压 / 舒张压）。尽管群体规模小，但在干预后，调节和生活质量参数明显改善，并且在 6 个月的观察期后，进一步改善。该等结果还需在更大的患者群体和对照群体上加以证实。

SINOPSIS

Introducción: Aunque el tratamiento de euritmia lleva empleándose más de 80 años en el contexto de la medicina antroposófica para el tratamiento de, entre otros trastornos, la hipertensión arterial (HTA), hasta el momento no hay estudios sobre su eficacia en esa entidad de enfermedad. Sin embargo, se ha mostrado que la euritmia puede aumentar la variabilidad de la frecuencia cardíaca en comparación con el entrenamiento con ergómetro.

Objetivo: Determinar si un curso de 10 semanas de tratamiento eurítmico produce algún impacto sobre la hipertensión arterial y, en caso positivo, determinar en qué medida. También se explora el impacto de la euritmia sobre la regulación autónoma del estado, la autorregulación, la coherencia interna y la calidad de vida.

Métodos: Inclusión consecutiva de 9 pacientes (6 mujeres, 3 hombres, edad media de 64 años, DE de 8,26) con HTA diagnosticada por sus médicos de cabecera. Criterios de inclusión: sin uso de ningún fármaco antihipertensor o sin ningún cambio en la medicación antihipertensora desde las 4 semanas anteriores al inicio del estudio hasta el final del estudio. Se realizó euritmia con enseñanza semanal junto con un programa diario domiciliario durante 10 semanas con ejercicios específicos. Se realizó la medición de la tensión arterial (TA) durante 24 horas y se administraron los cuestionarios antes y después de la intervención. Además, después de 6 meses más, durante los cuales 8 de los 9 pacientes continuaron realizando los ejercicios por propia iniciativa, los parámetros antes mencionados volvieron a evaluarse por tercera vez.

Resultados: Los parámetros de mediciones de la TA de 24 horas muestran una mejora moderada, aunque no significativa, inmediatamente después de la intervención y 6 meses después de la intervención. Después de la intervención de 10 semanas, observamos una mejora del cuestionario de Regulación autónoma del estado, la subescala sobre «Regulación de descanso/actividad» de dicho cuestionario y la subescala «Iniciativa e interés» del cuestionario de calidad de vida de Herdecke (HLQ) (todos con $P < 0{,}045$). Después del período de observación posterior al estudio de 6 meses de duración, los parámetros mencionados mejoraron todavía más y se observó una mejora importante adicional en la subescala de Regulación autónoma de rasgos, subescala «Regulación de descanso/actividad», la puntuación total de HLQ y las subescalas de la escala HLQ de «interacción social», «equilibrio mental» y «habilidad física».

Conclusión: Un curso de 10 semanas de duración de euritmia no obtuvo una mejora significativa de la tensión arterial. Las medidas de tensión arterial medias mejoraron después de la intervención en 3,2/2,0 mmHg absolutas y, después de 6 meses de continuación independiente de la euritmia, en 6,3/4,4 mmHg (sistólica/diastólica). A pesar del pequeño tamaño del grupo, los parámetros de regulación y de calidad de vida mejoraron de forma significativa después de la intervención y, todavía más, después del período de 6 meses de observación. Los resultados necesitan validación con colectivos de pacientes y grupos de control de mayor tamaño.

INTRODUCTION

Eurythmy therapy (ET) has been used in the context of anthroposophic medicine (AM) for approximately 90 years. ET was developed by Rudolf Steiner and Ita Wegmann[1] and is an expressive movement therapy with meditative references, where discreet, strongly intentional movements are carried out in time with the enunciation of vowels and consonants. Much like AM on the whole, ET is particularly aimed at stimulation and support of the salutogenic capacities of the human organism. Despite its widespread implementation in the context of AM and the numerous individual case study reports and positive experiences with this therapy, there is as yet little data available on its effectiveness and efficiency.

Systematic research of available literature on ET up until October 2007 resulted in the discovery of only eight citations (of four studies),[2] only one of which had been carried out with a control group.[3] Since then, an additional nine studies have been published in PubMed-listed medical journals. There are as yet no studies on the effectiveness of ET for arterial hypertension (AH), although it is frequently used in daily clinical life in the context of AM as an add-on therapy. However, a study on ET demonstrated that compared to ergometer training, it increases heart rate variability (HRV).[4] Low HRV, particularly the high-frequency component, is considered to be a predictor of increased cardiovascular mortality.[5,6]

ET also had a positive impact on stress coping and health-related quality of life.[7] The correlation between distress and AH has been sufficiently proven.[8] Distress develops through inadequate coping strategies in relation to demands.[9] Therefore, ET could be a promising, salutogenetically oriented, non-medicinal therapy for the treatment of AH.

The objective of this pilot study is to clarify whether a 10-week course of ET is practicable and whether it has an impact on AH, and if so, the strength of this effect. Moreover, impacts of ET on autonomic function, self-regulation, internal coherence, and quality of life in patients with hypertension are being exploratively recorded via questionnaires.

PATIENTS AND METHODS

This is a single-armed, non-controlled pilot study. Eleven patients (six female, three male, mean age 64 years, SD 8.26) with essential AH who met the inclusion criteria were consecutively recruited between October and December 2009 through a general practice and the local newsletter. The inclusion criteria were defined as (1) first diagnosis of hypertension grade 1-2 with slight or moderately increased risk (blood pressure [BP] to 159/99 mmHg and with 1 or 2 risk factors; BP to 179/109 mmHg, no further risk factors) who, according to the Association of the Scientific Medical Societies in Germany (AWMF) guidelines, do not require immediate medical treatment[10]; and (2) known, insufficiently stabilized AH with unchanged antihypertensive medication from 4 weeks prior to inclusion until the end of the study. Age was between 50 and 75 years. Exclusion criteria were defined as the existence of a severe physical or mental illness, particularly diabetes mellitus, malignant diseases, manifest psychoses, and the existence of a known secondary hypertension (eg, obstructive sleep apnea syndrome, renal artery stenosis, pheochromocytoma, Conn's syndrome).

All patients gave their informed consent to inclusion in the study in writing after being given comprehensive information. Out of 11 patients, two declined to take part prior to the start of the study for personal reasons. ET was carried out as group therapy for 10 weeks with weekly instruction in the afternoon. A therapy session lasted for 60 minutes, followed by a 20-minute rest phase. The study participants were encouraged to exercise at home for 30 minutes on a daily basis as part of the home-based part of the study and to keep a nonstandardized exercise diary. No further counseling or recommendations on diet, lifestyle, or the like were given. Eurythmy therapy consisted of six clearly defined exercises at each session for all patients: (1) copper ball: circulation exercise; (2) copper rod: (a) circulation exercise, (b) hexameter; (3) time-space exercise; (4) the sounds S, M, and L; (5) (a) C-major scale, (b) Mozart theme; and (6) The tones I, A, and O (see Appendix for a more detailed description). Exercises were chosen by the therapist in agreement with other experts. The goal of these exercises is, among others, to practice the balance between tension and relaxation.

Patients had 24-hour BP measurements consisting of 64 single measurements taken at the point of being recruited for the study as well as at the end of the intervention. The total median blood pressure level over 24 hours was evaluated: nighttime median BP was evaluated from measurements taken between 10:00 PM and 6:00 AM, and daytime median BP was evaluated from measurements taken between 6:00 AM and 10:00 PM.

Patients were also given a number of questionnaires before and after the intervention, including State-autonomic Regulation (S-aR),[11] Self-regulation (SR),[12,13] Internal Coherence Scale (ICS),[14] and the Herdecke Quality of Life Questionnaire (HLQ).[15] At the start of the study, patients also were given the questionnaire on Trait-autonomic Regulation (T-aR).[16]

The S-aR questionnaire is a four-dimensional, 18-item inventory with the subscales orthostatic-circulatory, rest/activity, thermo-sweating, and digestive regulation.[11] The T-aR questionnaire is a three-dimensional, 18-item inventory with the subscales orthostatic-circulatory, rest/activity, and digestive regulation.[16] The autonomic regulation records the integration of endogenous autonomic functions, such as sleeping, waking, vertigo, orthostasis, and thermal and digestive regulation as well as intrinsic motivation. While the state version records this integration during the last 2 weeks, the trait version captures how it is in general.

The HLQ captures the quality of life with the six subscales "initiative power and interest," "social interaction," "mental balance," "physical abilities," "sleep quality," and "digestive well-being."[15] The questionnaire on self-regulation is a scale with 16 items for measuring self-regulation and health-building activity.[12,13]

At the end of the intervention, patients were asked for a subjective assessment of the therapy using a non-standardized questionnaire.

As eight of the nine study patients carried on with ET after the end of the 10-week intervention, participants, having provided their informed consent again, were reassessed 6 months after the end of the study with 24-hour BP measurements and administration of the questionnaire inventory (Figure 1). For technical reasons, these measurements were not successful for

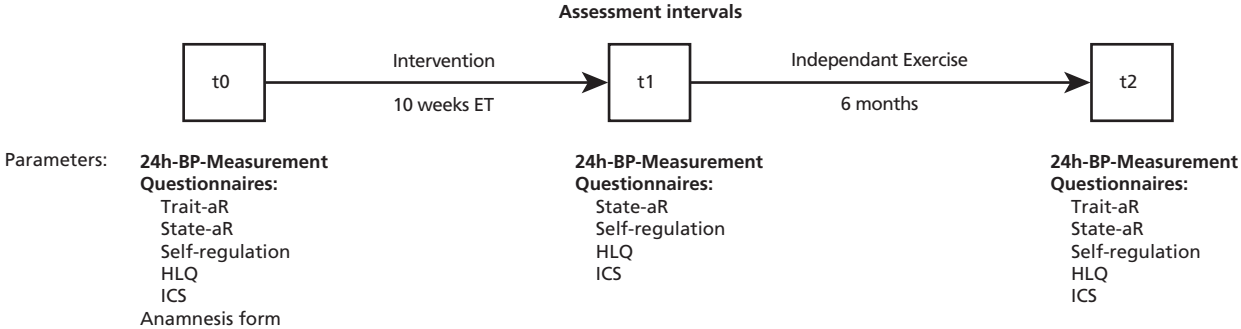

Figure 1 Study design. During this time, 8 of the 9 study patients carried on with eurythmy therapy independently.

Abbreviations: aR, autonomic regulation; HLQ, Herdecke Questionnaire on Quality of Life; ICS, Internal Coherence Scale; t0, before intervention; t1, after intervention; t2, following the 6-month observation period.

two of the remaining eight patients, so only six measurements were available at point t2.

We used the SPSS 19.0 software package (IBM Corp, Armonk, New York) for the statistical analysis and the Wilcoxon rank-test for the paired test.

RESULTS

Nine patients completed the intervention. The average duration of hypertension was 18.67 years (SD 12.03). Descriptive data of demographic and clinical variables are summarized in Table 1.

Table 1 Sociodemographic and Clinical Characteristics of the Study Population (n = 9) at Baseline

Age mean, y (SD)	64 (8.26)
BMI mean (SD)	25.44 (3.79)
Gender, no. (%)	
Female	6 (66.67)
Occupation, no. (%)	
University degree	3 (33.33)
Unemployed	1(11.11)
Retired	5 (55.55)
Marital status, no. (%)	
Married/in partnership	7 (77.77)
Divorced or separated	1 (11.11)
Widowed	1 (11.11)
Duration of illness mean, y (SD)	18.67 (12.03)
Antihypertensive medications, no. (%)	
Beta blockers	4
ACE-Inhibitors/angiotensin II receptor blockers	8
Calcium channel antagonists	3
Diuretic agent	3
Others	1

Abbreviations: ACE, angiotensin-converting enzyme; BMI, body mass index.

The average BP prior to the intervention was 144.89/82.56 mmHg. After the intervention, it was 141.67/80.56 (P=.341/P=.292). At point t2 it was 138.57/78.14 mmHg (P=.204/P=.073). The individual changes in BP are shown in Figure 2. Further BP parameters are shown in Table 2. There were no significant changes.

The following parameters showed significant improvements after the intervention compared to the baseline: S-aR (Z = 2.092, P=.036), S-aR Subscale on rest/activity regulation (Z = 2.042, P=.041), SR (Z = 2.018, P=.044) and the HLQ subscale "initiative and interest" (Z = 2.032; P=.042) (Table 2).

After the 6-month observation period (t2) there was a significant improvement in the following parameters compared to the baseline levels: T-aR subscale "rest/activity regulation" (Z = 2.214, I = .027), S-aR (Z = 2.255, P=.024), S-aR subscale "rest/activity regulation" (Z=2.238, P = .02), SR (Z = 1.956, P = .05), HLQ sum score (Z = 2.490, P = .013), the HLQ subscales "initiative and interest" (Z = 2.342, P = .019), "social interaction" (Z = 1.98, P=.048), "mental balance" (Z = 2.214, P=.027) and "physical ability" (Z = 2.512; P=.012) (Table 2). In the open, nonstandardized patient documentation, patients describe subjective changes during the 10-week course of therapy: improved resilience, more vitality, improved attitude toward life, more life impulses, improved ability to create a balance between stress and relaxation, and more regular sleeping and eating patterns. The recommended length of daily exercise (30 minutes) was almost achieved, with an average of 29.22 minutes (females 33 minutes, males 22 minutes). Medication remained unchanged throughout the intervention. This applies to both conventional and complementary medicine. One patient slightly reduced the antihypertensive medication of enalapril from 10 mg to 5 mg per day during the follow-up period. Participants reported no adverse effects of the intervention.

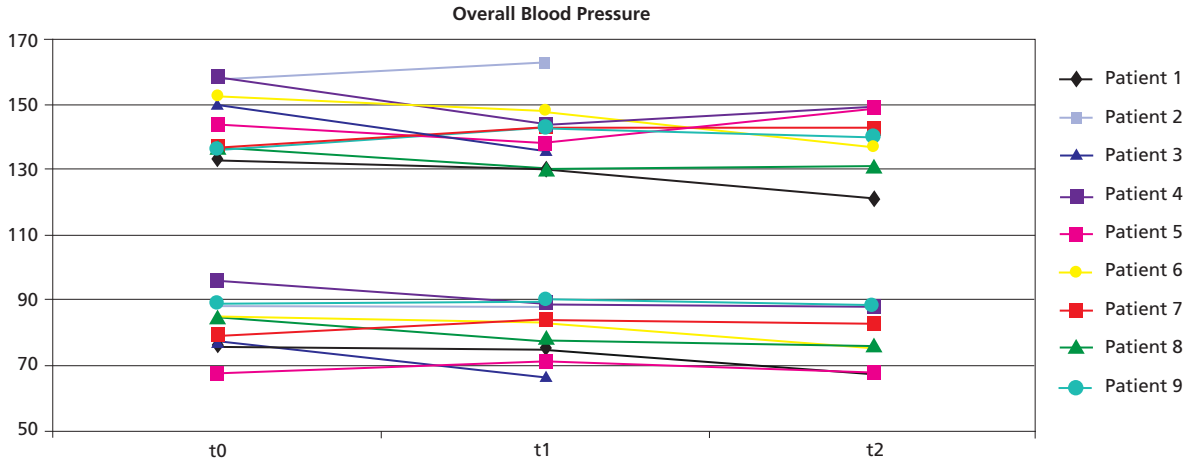

Figure 2 Individual development of 24-hour blood pressure measurements at the 3 measurement points (top, systolic; bottom, diastolic). In the case of patient 1, it was not possible to record measurements after the 6-month observation period for technical reasons, despite three attempts. In the case of patient 3, it was not possible to carry out measurements as the patient spent several weeks abroad.

Abbreviations: t0, before intervention; t1, after intervention; t2, following the 6-month observation period.

Table 2 Blood Pressure and Questionnaire Parameters

	Baseline t0		t1			t2			Baseline to t1	Baseline to t2
	Mean	SD	Mean	SD	Δ t0	Mean	SD	Δ t0	*P*	*P*
Blood Pressure Parameters										
Total systolic	144.89	9.62	141.67	10.14	–3.22	138.57	10.06	–6.32	.341	.204
Total diastolic	82.56	8.38	80.56	8.26	–2.00	78.14	8.49	–4.42	.292	.073
Total MAP	104.89	7.17	102.33	7.00	–2.56	100.00	7.70	–4.89	.256	.176
Day systolic	150.33	11.82	147.78	13.82	–2.55	142.14	10.70	–8.19	.313	.271
Day diastolic	86.67	9.23	85.00	9.30	–1.67	81.43	9.20	–5.24	.398	.088
Day MAP	109.78	8.42	107.22	8.35	–2.56	103.71	8.20	–6.07	.159	.075
Night systolic	133.89	10.14	129.78	8.07	–4.11	131.86	10.07	–2.03	.260	.674
Night diastolic	75.00	9.18	72.22	8.07	–2.78	71.86	7.52	–3.14	.207	.115
Night MAP	95.89	7.94	93.22	7.31	–2.67	93.57	7.59	–2.32	.260	.237
Psychometric Parameters										
T-aR	42.00	4.21				44.44	3.78			.122
T-aR rest/activity	17.67	3.81				20.89	2.26			.027*
T-aR orth/circ	17.33	2.83				16.11	1.36			.165
T-aR digestion	7.00	1.80				7.44	1.51			.414
S-aR	70.22	5.19	73.67	6.93		75.00	7.00		.036*	.024*
S-aR rest/activity	30.11	2.52	32.67	2.83		33.89	2.20		.041*	.020*
S-aR orth/circ	17.56	3.09	18.00	2.87		17.11	3.30		.180	.257
S-aR digestion	11.22	2.82	11.44	2.35		11.67	2.24		.414	.739
Internal Coherence Scale	36.22	5.63	39.33	5.12		39.44	2.88		.123	.084
Self-regulation	3.63	0.70	4.16	0.68		4.17	0.59		.044*	.050*
HLQ sum score	78.47	14.02	85.88	12.55		90.82	7.21		.213	.013*
Initiative and interest	21.33	4.18	24.44	3.71		25.00	1.87		.042*	.019*
Social interaction	18.11	4.34	19.00	3.16		20.44	2.40		.670	.048*
Mental balance	7.78	1.92	8.56	1.24		9.44	1.13		.059	.027*
Physical abilities	22.11	4.59	23.78	5.78		25.67	3.67		.675	.012*
Sleep quality	12.22	4.49	13.67	4.06		14.56	2.83		.395	.078
Digestive well-being	14.44	1.24	14.89	1.05		15.00	1.00		.102	.129

Abbreviations: Circ, circulatory; HLQ, Herdecke Questionnaire on Quality of Life; MAP, mean arterial pressure; orth, orthostatic; S-aR, State-autonomic Regulation; T-aR, Trait-autonomic regulation; t0, before intervention; t1, after intervention; t2, following the 6-month observation period.
*Significant changes.

DISCUSSION

A 10-week course of ET in the context of the pilot study proved practicable. All nine individuals completed the intervention. Moreover, the fact that eight of nine patients continued with ET after the end of the 10-week course confirmed very high patient motivation.

There are several studies showing a BP-lowering effect for physical activity.[17] This applied in particular to aerobic training.[18] The mechanism of action has not yet been conclusively established; however, one mechanism could be the movement-induced increased nitric oxide production in the endothelium.[19] ET, on the other hand, uses specific movement patterns, with the physical training component being significantly less important than the meditative aspects. Therefore, ET is considered to be a mind-body procedure that also can be carried out by patients with physical limitations.

Compared to ergometer exercise, it was possible to show an increase in HRV in healthy subjects through ET.[4] This applied in particular to the high-frequency component. This is a measurement of parasympathetic activity and is considered to be a marker for reduced cardiovascular risk as well as reduced overall mortality.[20] The ET intervention in this small pilot study did not result in a significant improvement in BP. In absolute figures, the average BP fell from to to t2 by 6.32 mmHg

systolic and 4.42 mmHg diastolic. This is comparable to the effect of aerobic exercise programs.[18] And diuretics (eg, thiazide monotherapy) lower BP by roughly the same extent.[21]

The initial average BP of the overall group at 144.89/82.56 mmHg constituted grade 1 hypertension. Lowering BP in correlation to the initial level, with a smaller decrease for only slightly increased levels, is to be expected, particularly for regulative therapy. A meta-analysis of 72 studies on the impact of endurance training on BP also showed a larger decrease in the case of higher initial levels.[22] Considering this, the decrease in BP observed during ET appears encouraging to prepare a future randomized controlled study.

Despite the small group size, the S-aR as well as the subscale on rest/activity regulation, the SR questionnaire, and the HLQ subscale "Initiative and Interest" improved significantly during the course of the intervention.

During the post-study observational period where patients carried on with ET exercises of their own accord, the aforementioned parameters continued to improve. Additionally, the t2 assessment compared to the baseline levels showed improvements in the T-aR subscale "rest/activity regulation," the HLQ sum score, and the HLQ subscales "mental balance," "social interaction," and "physical ability."

High aR reflects an equilibrated functioning of autonomic nervous system, and low aR indicates the opposite situation. High aR scores are correlated with cardiorespiratory coordination,[23] and a loss of aR has been shown in patients with chronic medical conditions in the short-version questionnaire.[24] For T-aR, we found in a 6-year observational study a significant impact on health and personality markers such as less fatigue and, together with SR, less distress as well.[25] Additionally, we found correlations of high aR with an improved performance status in cancer patients[16] and for patients of very advanced age a correlation with lower morbidity.[26] Moreover, cancer patients with higher SR had a better overall survival rate.[27]

The HLQ subscale "initiative and interest" contains questions about "having good ideas," being "able to put plans into action," and others. The improvement in the HLQ sum score and in four out of six subscales at t2 clearly indicates a better quality of life at the end of the observational period. The changes in aR and SR might reflect an improvement in health and personal assertiveness.

One important potential confounder is the social interaction due to the group therapy setting, which could have contributed to the improvement of quality of life. Also, the personality of the therapist may have influenced the results, regardless of the therapy itself. The patients were asked whether their medications had changed, and they said they had not; however, this information could not be verified.

On the other hand, the improvement of all aforementioned parameters from t0 via t1 to t2 may point to a dose-effect correlation; a possible regression to the mean effect

Appendix: Description of the Six Exercises Used and Their Objectives

Exercise 1
Copper ball (sitting): Drop the copper ball from hand to hand, from top to bottom and catch it, alternating left and right. Objective: Let go, have time, experience the movement, find the center.

Exercise 2A
Walk with copper rod: Keep the rod at shoulder width, then (1) raise it vertically, (2) turn the rod 180°, and (3) lower the rod. Always repeat the three time units. Stride simultaneously; raise the foot at 1, move the foot forward at 2, put the foot on the floor at 3. Objective: Coordination, order, measure, breath of the soul.

Exercise 2B
Move in hexameter: Walk three dactyls (long, short, short) forward with pause and three dactyls backward, break. Repeating over four units of time—three of them with speech/music, the fourth unit is without speech or music (pause). While walking the hexameter, carry the copper rod from top to bottom. Objective: To regulate the rhythm of the heartbeat and breathing.

Exercise 3A
Time-space exercise (release-pull together): Walk a cross: forward, back; to the right, back; backward, back; to the left, back. The patient moves his arms alternately in releasing (radius); pull together (center) Objective: Cope with space directions and time.

Exercise 3B
Time-Space Exercise (outwardly winding spiral): An outwardly winding spiral: move through the form clockwise, always feeling toward the center; end with the hands at the back. Objective: Do not lose the center; point – radius: perceive the polarity between the center and periphery.

Exercise 4
The sounds S, M, and L. S (the magician) S: movement upward (center), a countermovement in the gestalt; M (the wave) M: movement downward, countermovement in the gestalt; L (the flower) L: movement around and through the whole gestalt. Objective: Guiding the form - interpenetration - union of person and space.

Exercise 5A
C major scale. Move the arms with "appropriate muscle tension" according to the quality characteristics of C major. Objective: Become the instrument.

Exercise 5B
Mozart theme (KV 265). Three times a rising movement and eight times a falling motion. Movements will be made in the space forward and backward according to the rising and falling melody; this is done with intense feeling. Objective: To practice the tones as primordial mover of music, to join radius and center; always trying to hear the tone before it sounds, when it is sounding, and when it has finished sounding.

Exercise 6
The tones "I, A, and O." I: Forming a pillar of light: ball of the foot, sternum, and forehead as the axis, erecting. Feel the whole extension. Well-grounded and simultaneously loose and free. A: Put the legs at an angle, emphasize the heels, do not straighten the knees. O: Bring the arms together forward in a circle at the height of the diaphragm, shift weight to the forefoot. Experience the triad IAO as a whole and then dissolve in the following order: first O, then A, then I. Objective: Being aware of being a straight line, being an angle or being with rounded arms (head, feet, and arms). Feeling ensured inwardly (thinking, willing, feeling) and feeling harmony inwardly and outwardly.

must be considered. However, due to the concordant changes over the three measurement points, it appears unlikely. However, this hypothesis should be substantiated with controlled studies and larger patient collectives.

SUMMARY

A 10-week intervention with ET for AH proves feasible. High patient motivation could be seen, particularly as eight of nine patients carried on with the therapy of their own accord after the intervention. The intervention was associated with a moderate absolute, although nonsignificant, decrease of BP levels, possibly due to the small number of participants. Despite the small group size, the psychometric parameters aR and SR, for which correlations to health and survival have been shown in other patient groups, improved. Moreover, it was possible to show an improvement in health-related quality of life. The results should be further examined with controlled studies and larger patient groups.

Acknowledgments
Drs Zerm and Kröz received grants from the Humanus Institute, Berlin-Spandau, Germany, and the HB-Foundation Berneburg, Hannover, Germany.

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