Cognitive Behavioral Treatments of headache

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楊聖珊醫師

南區頭痛讀書會

Behavioral Treatments

- Relaxation Training
- Biofeedback Training
- Cognitive Behavior therapy /Stress Management

Relaxation Training (放鬆)

- 放鬆是許多心靈療法的基礎，
- 主要是靠調整呼吸和放鬆肌肉來達成。
- 有三種訓練放鬆的方法，包括：

  持續的肌肉放鬆（progressive muscle relaxation）

  自我調控(self-regulation)

  冥想沉思（meditation）。

- 有一項研究指出，經過十個階段的漸進式放鬆訓練，百分之九十六的頭痛患者可以有效降低頭痛發作的頻率、持續時間和嚴重度。

傑克遜放鬆法與漸進式肌肉放鬆法

a. 傑克遜肌肉放鬆法－

這套方法是由Jacobson一九三八年首先描述，在一九七〇年所設計出來的，經由肌肉一緊一鬆交替的方式，使身體每一處肌肉收緊和鬆弛，藉此方法可以達到身心放鬆的目的。

b . 漸進式肌肉放鬆法－

練習步驟與前者大致相同，唯一不同之處為，身體局部逐漸放鬆，不須先緊縮再放鬆。

http://www.youtube.com/watch?v=KxQJIiu9tK0

放鬆訓練

- 指溫升高, 心跳緩和, 肌肉放鬆, 血壓降低, 呼吸減緩, 減少氧消耗.
- 放鬆後神經訊息迴饋腦部
- 利用深而慢的呼吸達到深度放鬆
- 注意力集中, 從規律的身體各部放鬆, 而達到情緒的穩定，再影響各種身體機能的運作。

放鬆訓練

1. Conceptualization（讓病人了解放鬆訓練的目標,原理, 過程）
2. Self-monitor（對放鬆度,自我評分 0-100）
3. Discrimination training（辨別體會放鬆時身體症狀,進一步以此身體感覺為放鬆訓練指標）
4. Relaxation Training（放鬆訓練）
5. Transfer training—generalization（將學到的技巧於家中練習,應用於日常生活情境中）

不斷的練習放鬆訓練

體驗緊張與放鬆後的二種不同感覺,
並且掌握要領,
抓住放鬆後的內在感覺(Internal cue),
→ (generalization)
才能將它類化到日常生活情境.

History and clinical applications of biofeedback

- **biofeedback**(BFB) began in the USA , late 1950s.

- instrumental training could produce increases or decreases in several body responses. These included vasomotor responses , blood pressure, salivation, galvanic skin response and cardiac rates.

Behavioural treatments: rationale and overview of the most common
therapeutic protocols
Neurol Sci (2007) 28:S67 – S69
L. Grazzi

biofeedback(BFB)

- Individuals could gain volitional control over several different autonomic functions.
- cortical control was possible over autonomic nervous system activity.

生物迴饋像鏡子一般

- 反應在我們面前，讓我們不僅可瞭解並可進一步學習去控制、調整自己的生理狀態，訓練自己達到身心放鬆的狀態。
- 解讀身心狀況，把它量化.
- 臨床上最常用下列幾項指標：

1. 指溫－緊張時溫度較低，放鬆時指溫升高。
2. 心跳－緊張時心跳快速，放鬆時心跳緩和。
3. EMG（肌肉活動電位）－ 緊張時肌肉緊繃，放鬆時肌肉放鬆。

精神官能症之行為治療
李明賓李宇宙醫師著

Biofeedback（BFB）

- 小孩和較年輕的病患對此種療法的反應較佳。
- 因為該種療法的療效已經被肯定，有些學者認為它應該被視為預防偏頭痛的一種標準治療方式。

Techniques of BFB

The 2 most common forms

- **Thermal (hand-warming)**訓練自我控制手指的溫度
- ElectromyographicEMG-biofeedback:自我控制肌電波, 尤其適合喜歡機器電子設備者.
- BVP – Blood Volume Pulse
- Neurofeedback (EEG)

Frequency, duration of Behavioral Treatments

BFB

Requires:

Trained therapist

Weekly 30-45 min sessions

Two to three months

relaxation

Session 1-3: Progressive relaxation
Session 4-6: Cue-controlled,
brief relaxation,
differential relaxation
Session 7-9: Application training in
everyday life when
feeling, tense, stress or
headaches
Practice 20-60 min daily

Minimum number of sessions: 4-5?
School-based relaxation:
8-9 sessions a 45 min, 2/week
Session 1-3: groups with 3-5
subjects
4-8 individual training
Complemented with manuals,
audiotapes (CD), home training 1-
2/day

CBT

- 1-3hours/week
- (40-50min)
- 1-2/week
- 15-25 times

cognitive-behavior therapy.

- 基本假設為人的情緒與行為，會被他的對自身或週遭事物的看法所決定。所以治療者澄清病患對這些看法的錯誤認知，讓病患領悟到這些看法如何造成自己情緒的問題.

認知治療理論

- Beck的認知治療
- Ellis的理性情緒治療
- Meichenbaum 的自我教導訓練，

- 在1960年代 Albert Ellis理性情緒治療法（rational-emotive therapy）(如今重新命名為理情行為治療法，簡稱REBT)。
- 認知治療是一種有系統的心理治療方式，它的基礎是情緒障礙理論(Beck,1967)、心理學的實驗與臨床的研究(Kovacs&Beck,1978)，以及界定清楚的治療技術(Beck et al.,1979)。認知治療也是一種結構式的心理治療，用來幫助病人減緩症狀並且學習有效的方式來處理病人所遭遇的困難。
- 而Mahoney和Meichenbaum(1972)也都認為認知行為治療法的出現，象徵著認知學派和行為學派有了極為成功的結合。Perris(1989)更指出認知治療和行為治療在一開始就共同結合的現象，已經證實了治療的成果。

Ellis歸納的11種常見非理性思考模式

1. 每個人都需要得到身邊親友的喜愛與讚美.
2. 每個人都要能力十足，多方面有成就才有價值.
3. 對危險及可怕的事一定要非常掛心.
4. 逃避困難與責任比面對他們容易.
5. 有些人是不好的,邪惡的,卑鄙的.
6. 期待的沒實現是可怕的災禍.
7. 不幸不快樂都是外在引起的，個人無能為力.
8. 每個人都要有靠山才行.
9. 過去的經驗會決定影響現況.
10. 每個人都應要為別人的問題與適應不良感到難過.
11. 每個問題都只有一個正確答案，必須找到才行.

認知治療者常依循下列五步驟：

(1)注意去發現病人常出現的那些負面想法。
(2)讓病人瞭解他的負面想法如何影響他的情緒變化與行為反應。
(3)找出證據來證實病人的想法是無根據或不合真實的。
(4)使病人學習採用另一種新的、真實的看法，來取代他原本所採用的負面的、悲觀的、不合理的想法。
(5)找出使病人容易產生負面想法的內在錯誤信念、假設或思考方式，並加以修正。

家庭作業

- 一式三欄的認知記錄
- 第一欄: 發生的時間地點場合, 頭痛焦慮程度評分
- 第二欄: 記下當時過程前後想法, 推理.
- 第三欄: 嘗試分析來龍去脈的錯誤邏輯.
- 可能的話增列第四欄:寫出可能替代性的想法, 重新歸因

家庭作業

一 時間地點場合, 頭 痛焦慮程度評分	二 前後想法, 推理.	三 分析來龍去脈的錯誤邏輯.
2009/10/9 10AM 於辦公室 頭痛8分焦慮10分	• 我今天特別虛弱, 所以……. • 我今天不應該上班… • 女友回台北, 所以…. • 我想我會死….	1. 今天身體很好, 只是工作太多. 想把事情做得完美. 4. 不是事實, 不是最糟狀態.

技巧

打破砂鍋問到底：1.證據何在?

2.還有其他可能嗎?

3.發生了又怎樣?

- 可以自問自答, 最好自言自語（行話）
- 勿恨鐵不成鋼（而是教病人如何察覺自己臨事或對自己所持有的自動化思考 automatic thinking).

(行話)

1. 有什麼證據可以支持或駁斥這個看法?
2. 理由何在?
3. 這樣因果關係是否太簡單了?
4. 這樣想是習慣使然還是事實?
5. 這樣想會不會離事實太遠?
6. 事實真的如所說的嗎?
7. 要不是這樣, 就非那樣不可嗎?
8. 這樣遣詞用句會不會太極端?
9. 所引據的是否僅限於合己意的特例?
10. 有沒有使用認知的自我防衛機轉?
11. 消息來源可靠嗎?
12. 會不會傾向將可能性當必然性?
13. 這樣的想法較憑感覺而昧於事實嗎?
14. 會不會執著與事實毫不相干的情境中?

實演

- 病人:每次開會時就會頭痛（trigger）
- 治療者:開會時是怎樣狀況?
- 病人: 開會時, 很痛苦, 怕出錯, 很緊張.好像再怎麼努力,也無法達到完美.
- 治療者:從以前到現在有發生什麼大的錯誤嗎?
- 病人:……嗯, 也沒有.
- 治療者:也沒有事情搞砸了,那你會不會把事情想的嚴重了一點.
- 病人:……嗯, 也許吧.
- 治療者:看起來, 你在太多事情, 太多難處理的情況下, 若想要做的完美, 會有不舒服出現, 就會頭痛. 你的身体會出現這樣感覺, 壓力來時會這樣反應. 是不是你自己想一個辦法, 試試歸類,記錄;在什麼狀況,會有什麼感覺,什麼樣的念頭.

一週後回診,病人交記錄報告

- 練習放鬆訓練學到的技巧於家中練習

下週回診,病人交記錄報告

- 治療者:若於上班時要趕報告,坐辦公桌前,試試放鬆訓練15分鐘.
- 病人回診回應說: 沒效.
- 治療者:檢討是否做了正確的放鬆訓練---加上thermal biofeedback機器量指溫發現, 雖做了正確放鬆訓練, 但沒放鬆—重新再教一次, 直到學到真正放鬆--叫病人回家中不斷再練習.
- 學會了有用的方法, 每次壓力來時, 每次做有效. 雖然還有頭痛, 但以從10分 降到 6分.
- 病人可接受,認為是一個有幫忙的方法

For whom

1. patient preference.
2. poor tolerance/poor response to preventive medications.
3. medical contraindications to medications.
4. pregnancy, planned pregnancy or nursing.
5. history of overuse of acute care medications.
6. significant stress or deficient stress/pain coping strategies.
7. Have insufficient or no response to pharmacological treatment.

What does the evidence show?
Efficacy of behavioural treatments for recurrent headaches in adults
F. Andrasik
Neurol Sci (2007) 28:S70 – S77

Integration of behavioural techniques into clinical practice
Neurol Sci (2007) 28:S84 – S88
DOI 10.1007/s10072-007-0756-6
R.E. Weeks

And for whom:

1. Do not receive treatment due to the expense of treatment.
2. Inability to travel to clinic.
3. Frustration with past treatment.
4. Promising treatment venues include limited-contact and home-based treatment formats, as well as delivery of treatments in schools and work sites or via the Internet and other mass media.

Behavioral Approaches to the Treatment of Migraine
Kenneth A. Holroyd, Ph.D.,1 and Jana B. Drew, Ph.D.1, 2006

Not for whom

1. complications that suggest medical reevaluation.
2. reading comprehension below 8th grade for limited-contact treatment
3. cognitive impairment
4. comorbid psychiatric disorder of sufficient severity to impair the patient's ability to participate in treatment.
5. PSYCHOLOGICAL SYMPTOMS

Behavioral Approaches to the Treatment of Migraine
Kenneth A. Holroyd, Ph.D.,1 and Jana B. Drew, Ph.D.1, 2006

Difficult to treat
by behavioural approaches

1. Medication overuse
2. Refractory headaches
3. Chronic, daily and unwavering patients
4. Cluster (Blanchard, Andrasik, Jurish, &Teders, 1982), posttraumatic (Ramadan&Keidel, 2000),
5. Drug-induced, unremitting, and possibly menstrual migraine (see Holroyd, Penzien, & Lipchik, 2001)

Applied Psychophysiology and Biofeedback, Vol. 27, No. 2, June 2002 (C˚ 2002)
Donald B. Penzien,1;5 **Jeanetta C. Rains,**2;3 **and Frank Andrasik**4

Neurol Sci (2007) 28:S70 – S77

respond well

1. Coordinated, interdisciplinary care, such as that found at most comprehensive pain centers, may be required (Duckro, Tait, Margolis, & Silvermintz, 1985; Lake, Saper, Madden, & Kreeger, 1993).

2. Children respond at a greater level (see article by Hermann & Blanchard, this issue)

3. Elderly patients can respond at levels reported in the earlier described meta-analyses if certain procedural adjustments are made to accommodate for any physical or cognitive limitations present.

Behavioral Management of Recurrent Headache:
Three Decades of Experience and Empiricism
Applied Psychophysiology and Biofeedback, Vol. 27, No. 2, June 2002 (C˚ 2002)
Donald B. Penzien,1;5 **Jeanetta C. Rains,**2;3 **and Frank Andrasik**4

Behavioural therapies (When)

- face-to-face, weekly clinic sessions.
- no firm standard.
- Duration: depends on the clinical response of symptom relief or the patient's adequate control of the target measure.
- diminishing returns, such as response plateaus, then the practitioner should terminate further treatment.

Behavioural treatments: rationale and overview of the most common therapeutic protocols
Neurol Sci (2007) 28:S67 – S69
DOI 10.1007/s10072-007-0753-9 **L. Grazzi**

- cognitive/behavioural pain and stress management strategies that focus on the reactive component of the pain experience. Patients learn to identify and modify distress-related thoughts and maladaptive styles of thinking that can contribute to headache susceptibility.

#This type of therapy emphasises the role of thoughts, perceptions, belief systems, self-evaluations and appraisals that influence emotional states, physiology and behaviour.

problem-solving and coping skills

Positive self-statements.

- Patients rehearse adaptive cognitive and behavioural responses.
- Self-statements help patients (1) prepare for an attack, (2) manage initial symptoms, (3) handle critical moments during the attack and (4) act adaptively during the post headache phase.

#Patients become keen observers, prepare to cope adaptively and avoid becoming hypervigilant to pain sensations

- Cognitive therapy involves modifying a patient's automatic internal dialogue

Integration of behavioural techniques into clinical practice
Neurol Sci (2007) 28:S84 – S88
DOI 10.1007/s10072-007-0756-6
R.E. Weeks

Treatment modalities

- Relaxation training
- Temperature biofeedback
- Temp biof + relaxation
- EMG biofeedback
- Cognitive-behavioral tx
- CBT + temperature biof
- Waitlist control
- Other controls

Goals (**of nonpharmacological treatment)**

1. reduced frequency/severity of headache.
2. reduced headache-related disability.
3. reduced reliance on poorly tolerated or unwanted pharmacotherapy.
4. enhanced personal control of pain.
5. reduced headache-related distress and psychological symptoms.

- most instances these interventions emphasize *prevention* of headache.

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ALTERNATE TREATMENT FORMATS
(FOR BEHAVIORAL INTERVENTIONS)

1. Minimal Therapist-Contact Treatment or home-based. (self-regulation skills are introduced in the clinic, but training primarily occurs at home. three or four clinic sessions ,often as many as 12–16 weekly sessions) limit:45 to 60 minutes long for individuals or 60 to 120 minutes for groups. Home:8-week therapist administered format or an 8-week home-study)
2. Group Treatment (The 53% improvement / individually)
3. Self-Help Treatment (62% headache reduction with their selfhelp program versus only 14% with information control,)
4. Internet and Mass Communications Treatments

Behavioral Management of Recurrent Headache:
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Applied Psychophysiology and Biofeedback, Vol. 27, No. 2, June 2002 (C° 2002)
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Advantages of **behavioural treatment** to Chronic migraine accompanied by medication overuse

- behavioural treatment+ medical care->. distinct advantage.
- 1-year follow-up evaluation: similar result
- 3-year follow-up, the combined treatment group showed a distinct advantage.
- Those receiving behavioural treatment recorded fewer days of headache, reported less consumption of analgesics, and evidenced less relapse than those receiving medication alone (12.5% *vs.* 42.1%).
- Side effects and complications are minimal

Neurol Sci (2007) 28:S70 – S77

Shortcomings of behavioural Tx

1. Relative high cost due to the number of patient–therapist contacts.
2. special equipment and the training needed.
3. More time-efficient and cost-economical platforms.

Neurol Sci (2007) 28:S70 – S77

improvement	relaxation	biofeedback	cognitive behavioral therapy
Migraine	40%	30 – 50 %	50 % (3 yr f/u)
Tension Type Headache	60%-70%	50 – 60%	>50 %

Childhood Migraine
(A Complementary and Alternative Approach)
Thomas K. Koch, MD

- 過去曾經有小型的研究認為，特定的訓練對於特定的頭痛比較有效，例如肌肉訓練(EMG-biofeedback）對於緊縮型頭痛有效指溫訓練（thermal biofeedback），對於偏頭痛比較有效。

- 現在則是認為，不管是使用什麼樣的生物回饋訓練，只要能夠達專注、放鬆的效果，就會有效。
- 例如指溫的訓練，不論是訓練指溫升高或是下降，效果都一樣不會因為訓練是增加血液的血流量或是減少血液血流量而有不同。

- 現在一般認為偏頭痛發生的原因是三叉神經的發炎。放鬆的訓練不只是減少憂鬱與焦慮，也會透過情緒影響免疫功能的機轉，穩定免疫系統，減少引發偏頭痛的神經發炎產生，所以可以有效預防偏頭痛，減少頭痛的次數與嚴重度。

HA reduction	Migraine	Tension Type Headache	HA (migraine+TTH)
Behavior/amitriptyline	35%/38%[1]		
Behavior therapy	32% -49%[2] [3]	37% to 50%[2] [3]	30-60%[1] 35-50%[2]
Combined therapy(Rx+B)	64%[1]		

[1]Neurol Sci (2007) 28:S70 – S77

[2]*Applied Psychophysiology and Biofeedback, Vol. 27, No. 2, June 2002*

[3]Biobehavioral Treatment of Headache Rescuing Patients from Intractable Pain *Eric Schuman, MPAS, PA-C Portland, Oregon*

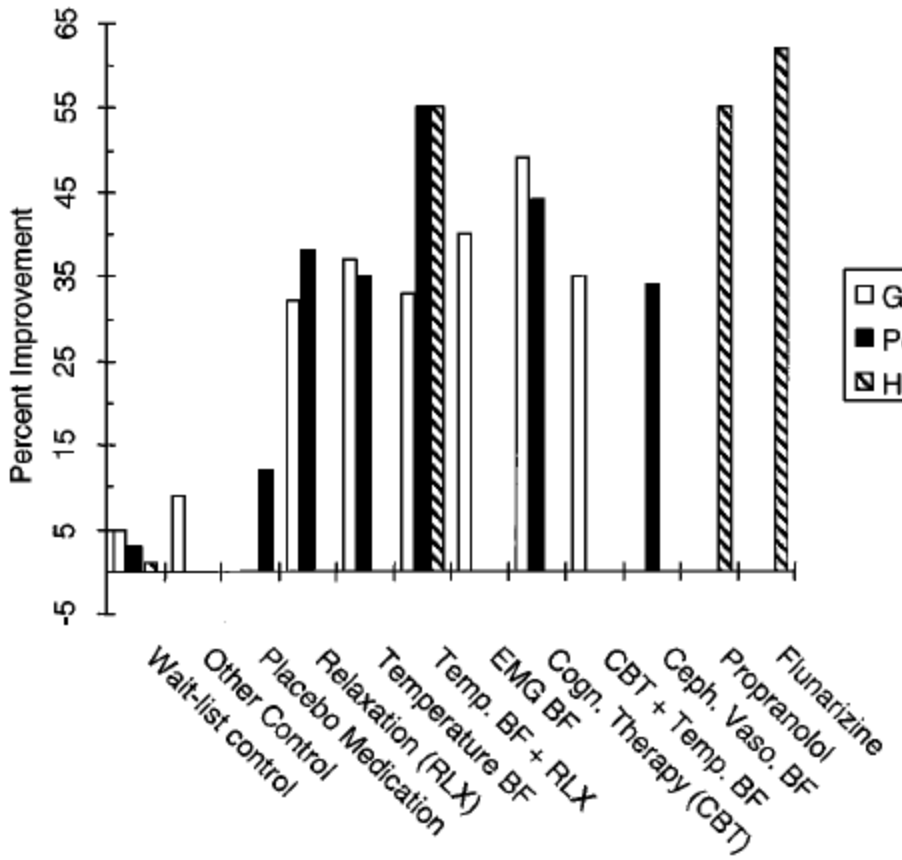

Fig. 1. Combined meta-analyses of behavioral and pharmacological treatments for migraine: Percent improvement scores by treatment condition. Abbreviations: RLX = Relaxation Training; CBT = Cognitive-Behavioral Therapy; Ceph. Vaso. BF = Cephalic Vasomotor Biofeedback Training; Temp. BF = Temperature Biofeedback Training; EMG BF = EMG Biofeedback Training.

- Behavioral interventions yielded 32% -49% reductions in migraine vs. 5% reduction for no treatment controls.

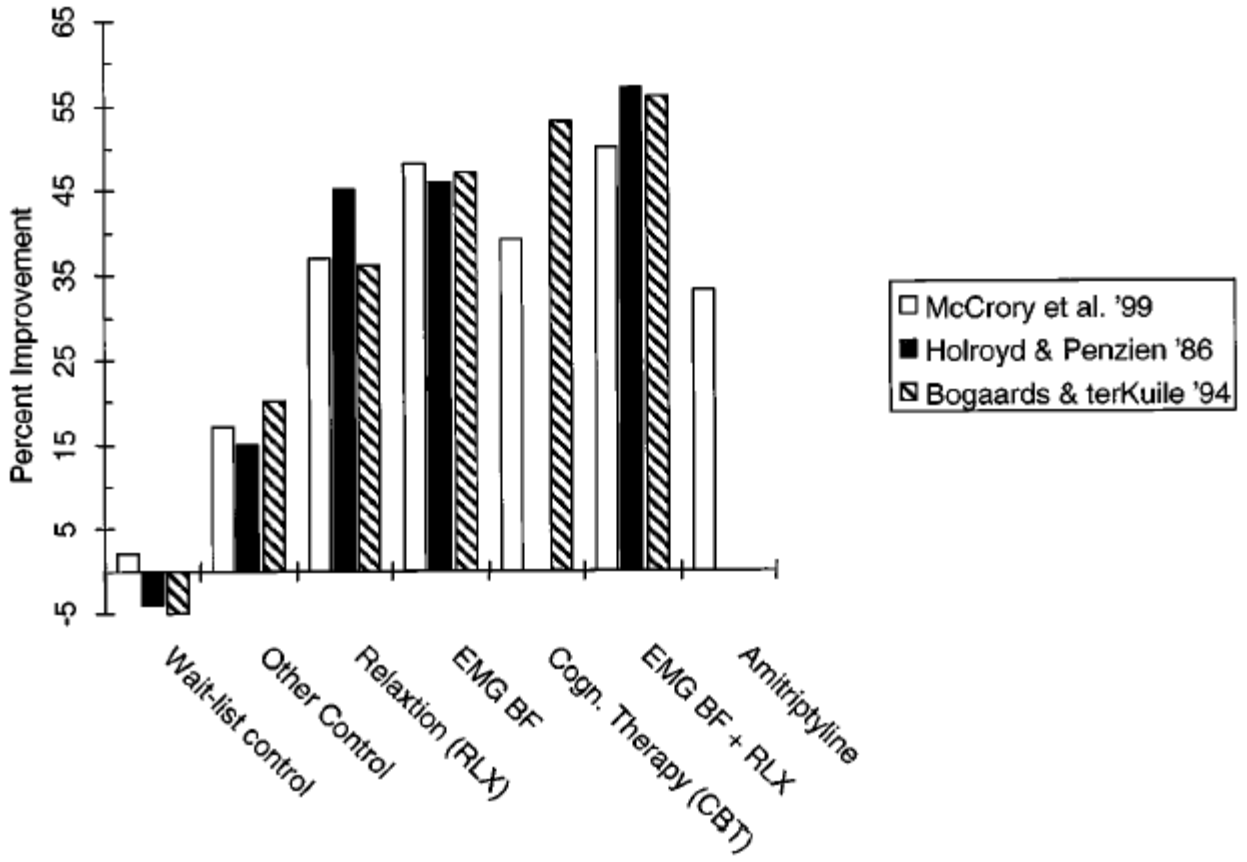

Fig. 2. Combined meta-analyses of behavioral and pharmacological treatments for tension-type headache: Percent improvement scores by treatment condition.

TTH: Behavioral interventions yielded 37% to 50%reduction, compared to 2% reduction for no treatment and 9% for other controls.

Evidence Based Support Prevention of Migraine

(US Headache Consortium recommendations for behavioural treatment of migraine)

Grade A Evidence

Relaxation training, thermal biofeedback with relaxation, electromyographic biofeedback and cognitive-behavioral therapy may be considered as treatment options for prevention of migraine.

Grade B evidence:

Behavioural therapy may be combined with preventive drug therapy to achieve added clinical improvement for migraine.

Summary and concluding remarks

1. Relaxation, biofeedback and cognitive therapy lead to significant reductions in headache activity, ranging from 30% to 60%.
2. Conversely, nonresponders or partial responders (approximately 40%–70%).
3. Improvements for behavioural treatments exceed those obtained for various control conditions (waiting-list, medication placebo, psychological placebo).
4. Behavioural treatments produce benefits similar to those obtained for pharmacological treatments.
5. Combining various behavioural and pharmacological treatments can increase overall effectiveness.
6. Evidence from the meta-analyses suggests that the effects for behavioural therapies endure over time.(up to seven years post-treatment)

Neurol Sci (2007) 28:S70 – S77

Strategies of behavioural Tx

Identification of HA triggers-> Use self-regulation skills

Aimed at prevention of headache episodes

optimal options for young patients or for patients where the medications remain contraindicated.

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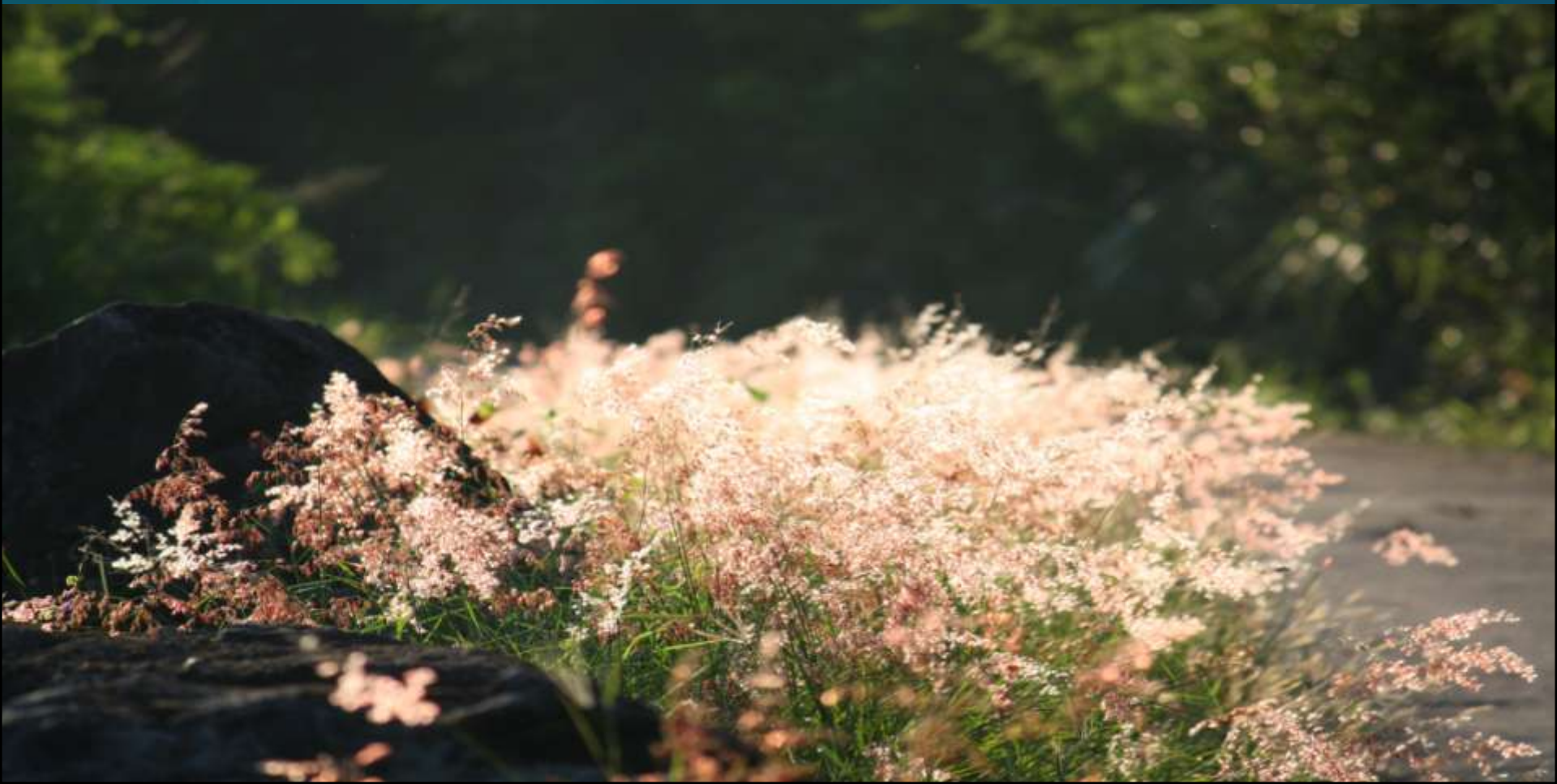
- Headache is a complex problem that often can require a multi-dimensional, multi-disciplinary approach.
- headaches (especially migraine) are highly prevalent and affect not only individual patients (and their families), but also society at large.
- The goal is to treat the *person* and not merely *pain*.
- It should be emphasised that *nonpharmacological treatment is not anti-pharmacological*

Integration of behavioural techniques into clinical practice
Neurol Sci (2007) 28:S84 – S88

R.E. Weeks

The END

Thank you for your attention



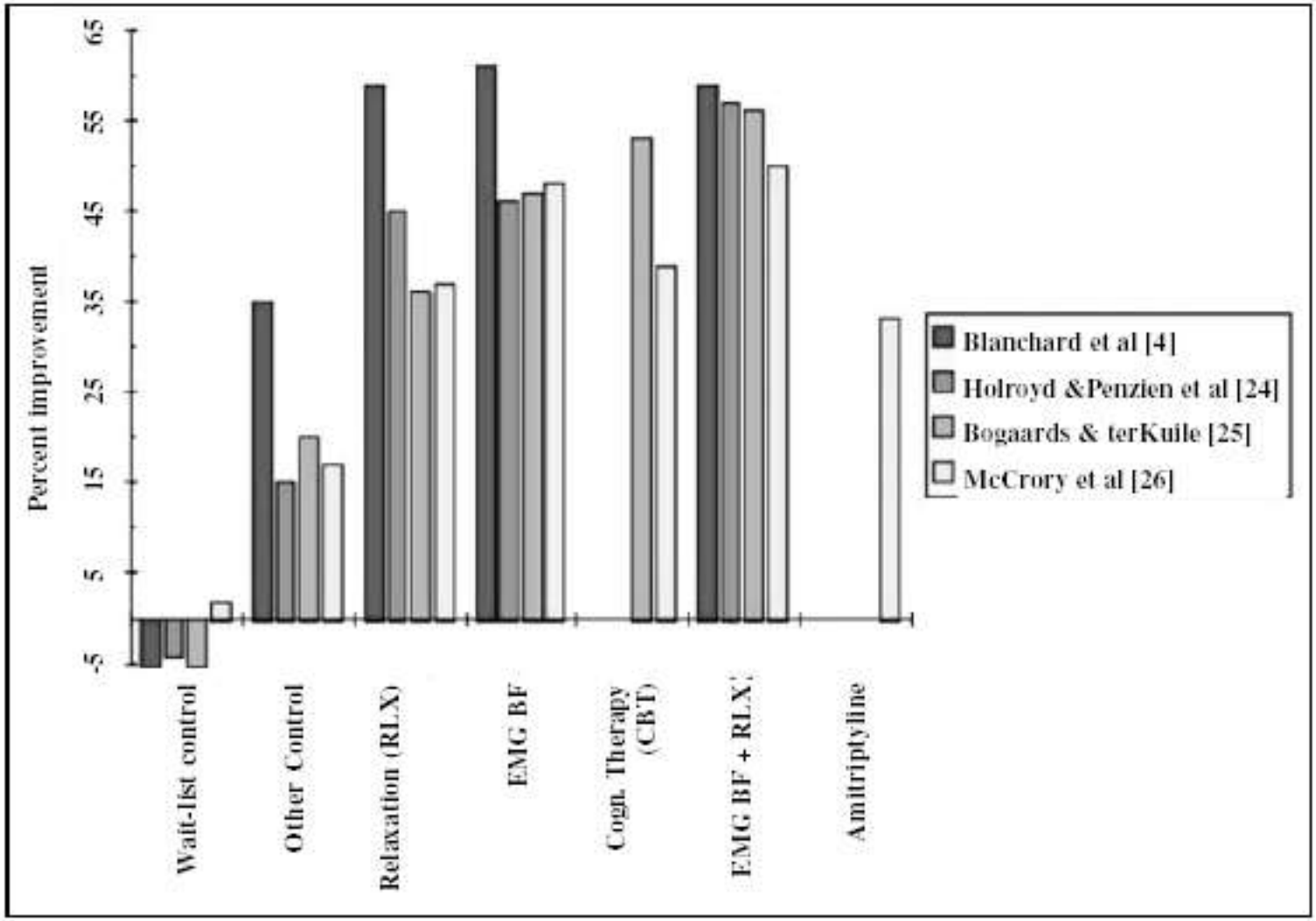


Fig. 2 Combined meta-analyses of behavioural and pharmacological treatments for tension-type headache.
Percent improvement scores by treatment condition. Portions adapted from Penzien et al. [13]. Reproduced with permission from Springer Publishing

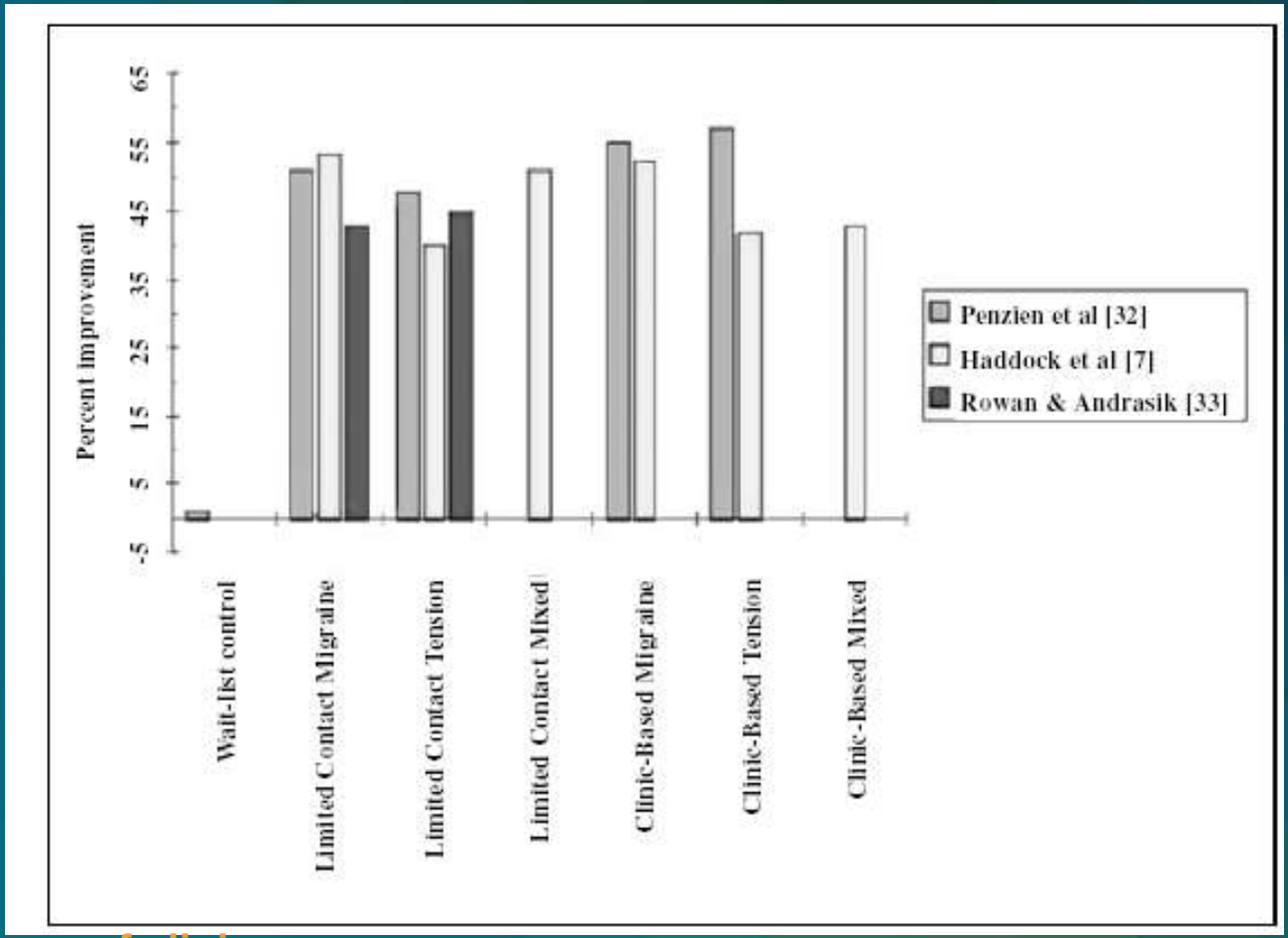
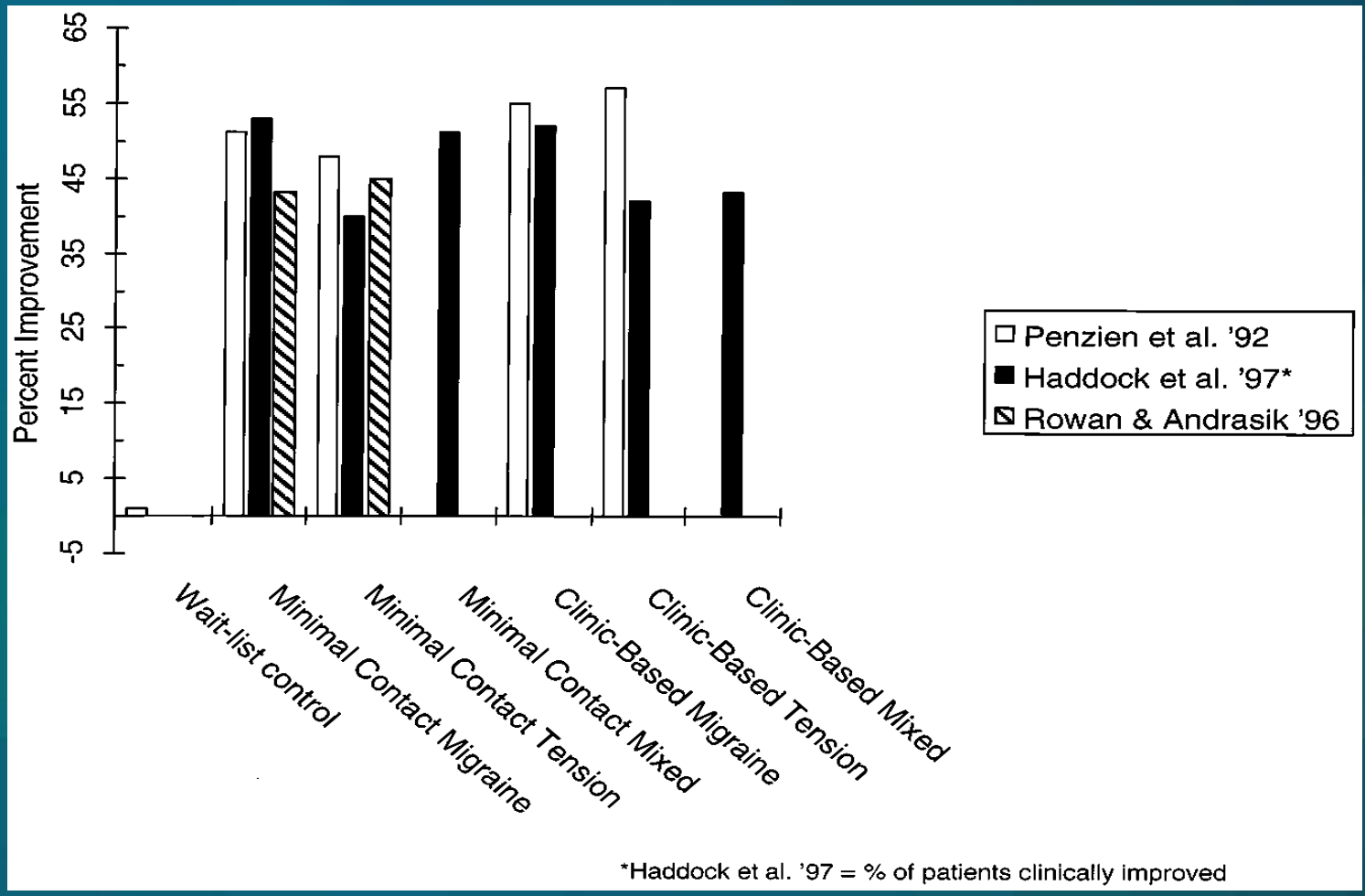


Fig. 3 Combined meta-analyses of clinic - and limited - contact behavioural treatments for migraine, mixed, and tenotype headaches. Percent improvement scores by treatment condition. Portions adapted from Penzien et al. [13]. Reproduced with permission from Springer Publishing

Amitriptyline

Fig. 3. Combined meta-analyses of minimal contact behavioral treatments for migraine and tensiontype headache: Percent improvement scores by diagnosis and treatment condition.



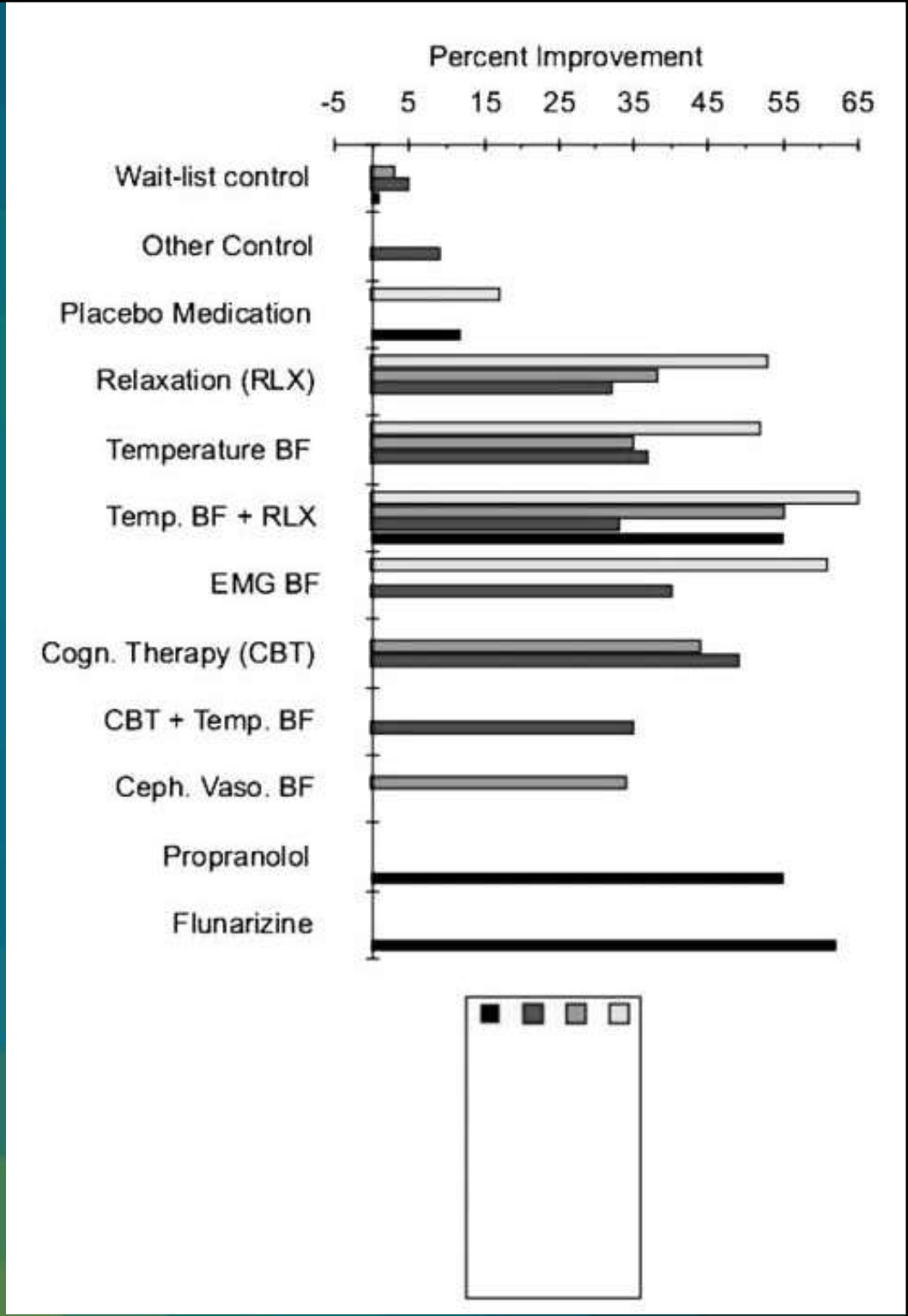


Fig. 1 Combined meta-analyses of behavioural and pharmacological treatments for migraine. Percent improvement scores by treatment condition. Portions adapted from Penzien et al. [13]. Reproduced with permission from Springer Publishing

relaxation training

- decrease headache by enabling headache

  patients to modify their own headache-related physiological responses and decrease sympathetic arousal.
- 3 Types: progressive relaxation training, autogenic training and passive or meditative relaxation.
- Relaxation techniques are often used in combination with BFB and stress management.

PSYCHOLOGICAL SYMPTOMS

- Depression and anxiety are comorbid with migraine (see Radat and Swendsen45 for review) but no studies have examined the impact of major depressive disorder on behavioral treatment outcome. Clinicians generally agree that when depression is severe, behavioral treatment will be difficult and, further, that addressing the mood disorder through psychological and/or drug therapy (if possible therapies that also are
migraine) should be the primary g

Behavioral Approaches to the Treatment of Migraine
Kenneth A. Holroyd, Ph.D.,1 and Jana B. Drew, Ph.D.1, 2006

REFRACTORY HEADACHES

- Patients with headaches that have proven refractory to multiple treatments present an obvious treatment challenge. Andrasik reviews the handful of studies that have added behavior treatment to drug therapy with refractory headaches, concluding that the addition of behavioral interventions can help patients who have not responded to single modality treatment. For example, a study that examined an interdisciplinary group treatment approach (medication management, physical therapy, education, relaxation, and biofeedback) for previously intractable headache found that more than [illegible] patients experienced a 50% or better reduc[illegible] headaches; further, there was an average r[illegible] in medication use of 71%.

Behavioral Approaches to the Treatment of Migraine
Kenneth A. Holroyd, Ph.D.,1 and Jana B. Drew, Ph.D.1, 2006

MEDICATION OVERUSE

- There is evidence that, in combination with a

medication withdrawal program, behavioral interventions can be helpful in the long-term management of medication withdrawal headaches. Grazzi and colleagues

- it suggests behavioral interventions may help prevent rela
by providing an altern
medication use during
headache exacerbations.

Behavioral Approaches to the Treatment of Migraine
Kenneth A. Holroyd, Ph.D.,1 and Jana B. Drew, Ph.D.1, 2006

Results

- First, relaxation, biofeedback and

cognitive therapy lead to significant reductions in headache activity, ranging from 30% to 60%.

- Second, conversely, there are a fair number of patients who are nonresponders or partial responders (approximately 40%–70%).

#Prediction of treatment response and careful treatment

planning become particularly important when attempting

to improve upon this outcome

#Certain headache types have proven to be particularly difficult to treat by behavioural approaches (those characterised by medication overuse and a presentation that is chronic, daily and unwavering, and those diagnosed as cluster or post-traumatic;

What does the evidence show?
Efficacy of behavioural treatments
for recurrent headaches in adults
F. Andrasik
Neurol Sci (2007) 28:S70 – S77
DOI 10.1007/s10072-007-0754-8

BFB and behavioural treatments

- Side effects and complications are minimal,

What does the evidence show?
Efficacy of behavioural treatments
for recurrent headaches in adults
F. Andrasik
Neurol Sci (2007) 28:S70 – S77
DOI 10.1007/s10072-007-0754-8

- *35–50% reduction in migraine and tension-type headache activity*

Behavioral Management of Recurrent Headache:
Three Decades of Experience and Empiricism

Applied Psychophysiology and Biofeedback, Vol. 27, No. 2, June 2002 (C˚ 2002)

Donald B. Penzien,1;5 **Jeanetta C. Rains,**2;3 **and Frank Andrasik**4

- headaches (especially migraine) are highly prevalent and affect not only individual patients (and their families), but also society at large.
- Patients with complex headache histories and who have been refractory to usually effective treatment require careful assessment and comprehensive treatment that frequently include both pharmacological and nonpharmacological interventions.

Integration of behavioural techniques into clinical practice
Neurol Sci (2007) 28:S84 – S88
DOI 10.1007/s10072-007-0756-6
R.E. Weeks

Assessment

- not only make the proper headache diagnosis but to assess the context

  in which the patient's head pain occurs as well as its impact on the individual's life. The goal is to treat the *person* and not merely *pain*.
- effective treatment begins with building a therapeutic relationship with patients at the time of the initial consultation.
- It is important to establish an expectation that patients will be "active participants" in the management of their headache disorder.

Integration of behavioural techniques into clinical practice
Neurol Sci (2007) 28:S84 – S88
DOI 10.1007/s10072-007-0756-6
R.E. Weeks

Treatment

- It should be emphasised that *nonpharmacological treatment is not anti-pharmacological*.
- combination is superior to each individually.
- maximise long-term therapeutic benefit

Integration of behavioural techniques into clinical practice
Neurol Sci (2007) 28:S84 – S88
DOI 10.1007/s10072-007-0756-6
R.E. Weeks

生物回饋（biofeedback）

- 是偵測個人的生物訊號，例如指溫、皮膚導電度、心跳速度與變異率、呼吸速率、肌電波、腦電波等等，回饋給這個人知道。一般認為這些生物訊號代表自主神經系統的交感、副交感神經的作用，可以反應一個人的壓力狀況。

家庭作業

- 透過家庭作業，患者會經常留意自己的想法與情緒變化之間的關係，治療者也可藉作業內容辨認出什麼是患者的不良思考習慣。
- Perris(1989)認為有目標的家庭作業應該依循下列規則：
- 1. 家庭作業的指定必須是有系統的，且和治療者與患者在一開始所同意的要互相一致。
- 2. 家庭作業的指定必須是患者能夠了解且能抓到真正問題的個人計劃。
- 3. 可能的話，家庭作業應該是基於患者自己所提的計劃。
- 4. 家庭作業的設計必須和患者目前可用的資源相結合。
- 5. 家庭作業的結果必須在下個療程能加以複習。每一次的會談都是根據上次會談的感受與指定的家庭作業內容來繼續工作，在會談結束前則依會談內容指定家庭作業並與患者討論他對本次會談的感受。

Results: Migraine

- Behavioral interventions yielded 32% -49% reductions in migraine vs. 5% reduction for no treatment controls.
- Relaxation training, thermal biofeedback +relaxation, EMG biofeedback and cognitive behavioral therapy all statistically more effective than waitlist control.

Results: Tension Type Headache

- Behavioral interventions yielded

  37% to 50%reduction, compared to 2% reduction for no treatment and 9% for other controls.

Biofeedback

Migraine Evidence

- Numerous studies suggesting a 30 – 50 % improvement in headaches. Thermal well studied. When combined with relaxation 50 – 60 % improvement

Pediatric Migraine

- Several trials all showing some degree of improvement
- Randomized trial from 1998 showed 40 % improve

Tension-type Headache

- Numerous studies (>50) support a 50 – 60% improvement rate
- EMG training appears to be best s

Muscle Relaxation Therapy

Migraine Evidence

- Several studies suggesting a 40% improvement in headaches but not universal

Pediatric Migraine

- Five controlled trials with a total of 70 pts
- Relaxation > Psychologic placebo
- Relaxation = Ca channel blockers and serotonergic drugs

Tension-type Headache

- Nine studies support a 60% improvement rate
- Four trials support a 70% improvement rate

Cognitive Behavioral Therapy

Migraine Evidence

- Numerous studies suggesting a 50 % improvement in headaches with sustained 3 yr f/u
- Pediatric Migraine – Canadian Trial*
- Placebo-controlled: CBT vs. Relaxation vs. sham CBT
- 50 patients, 9-18 yrs, six 1 hr sessions
- Post-treatment: CBT 46%, Relaxation 40% vs. 8% improve
- 3 mo later: CBT 70%, Relaxation 68% vs. 28%

Tension-type Headache

- Holroyd KA, et al 1977
- CBT: 8/9 improved > 50%
- Biofeedback: 4/10 improved
- No Treatment: None improved
- Most sustained improvement 2 yrs later
- * Richter IL, et al. *Pain* 1986:25;195-203.

BFB

Requires:

- Trained therapist
- Weekly 30-45 min sessions
- Two to three months

May be combined with relaxation training

relaxation

Minimum number of sessions: 4-5?

- School-based relaxation:
  8-9 sessions a 45 min, 2/week
- Session 1-3: groups with 3-5 subjects
  4-8 individual training
- Complemented with manuals,
  audiotapes (CD), home training 1-2/day

relaxation

Bernstein & Borkovec 1973; Ost 1987

- Session 1-3: Progessive relaxation
- Session 4-6: Cue-controlled,
  brief relaxation,
  differential relaxation
- Session 7-9: Application training in
  everyday life when feeling
  tense, stress or headaches

Practice 20-60 min daily

Cognitive-Behavioral Therapy

Technique

1. Identification of thoughts and beliefs that exacerbate stress
2. Taught more effective stress coping skills
3. Often relaxation
4. Given assignments to work with coping skills

stragies

- Triggers
  self-regulation skills
- aimed at prevention of headache
- optimal options for young patients or for patients where the medications remain contraindicated.

Behavioural treatments: rationale and overview of the most common
therapeutic protocols
Neurol Sci (2007) 28:S67 – S69
L. Grazzi

What is CBT ?

- Cognitive-behavioral therapy is an action-oriented form of psychosocial therapy that assumes that maladaptive, or faulty, thinking patterns cause maladaptive behavior and "negative" emotions.
- The treatment focuses on changing an individual's thoughts (cognitive patterns) in order to change his or her behavior and emotional state.

認知治療

- 患者通常對自己、對所處環境及未來，充滿悲觀負面的自動化思考，認知治療的目的在協助當事人改變負向的思考模式，也是用來治療憂鬱、焦慮、恐懼症等心理異常常用的方法.

認知治療:

- 基本假設為人的情緒與行為，會被他的對自身或週遭事物的看法所決定。所以治療者澄清病患對這些看法的錯誤認知，讓病患領悟到這些看法如何造成自己情緒的問題.

認知治療

1. 治療一開始時，治療者先向病人解釋認知治療的理念。
2. 其次，利用指定的家庭作業，病人每天記錄他所出現的想法，並設法去驗證病人所採用的這些想法或信念是否合理、真實。
3. 在治療過程，透過病人與治療者的討論方式，病人常學會治療者所用的技巧，以此來處理他們自己的問題。

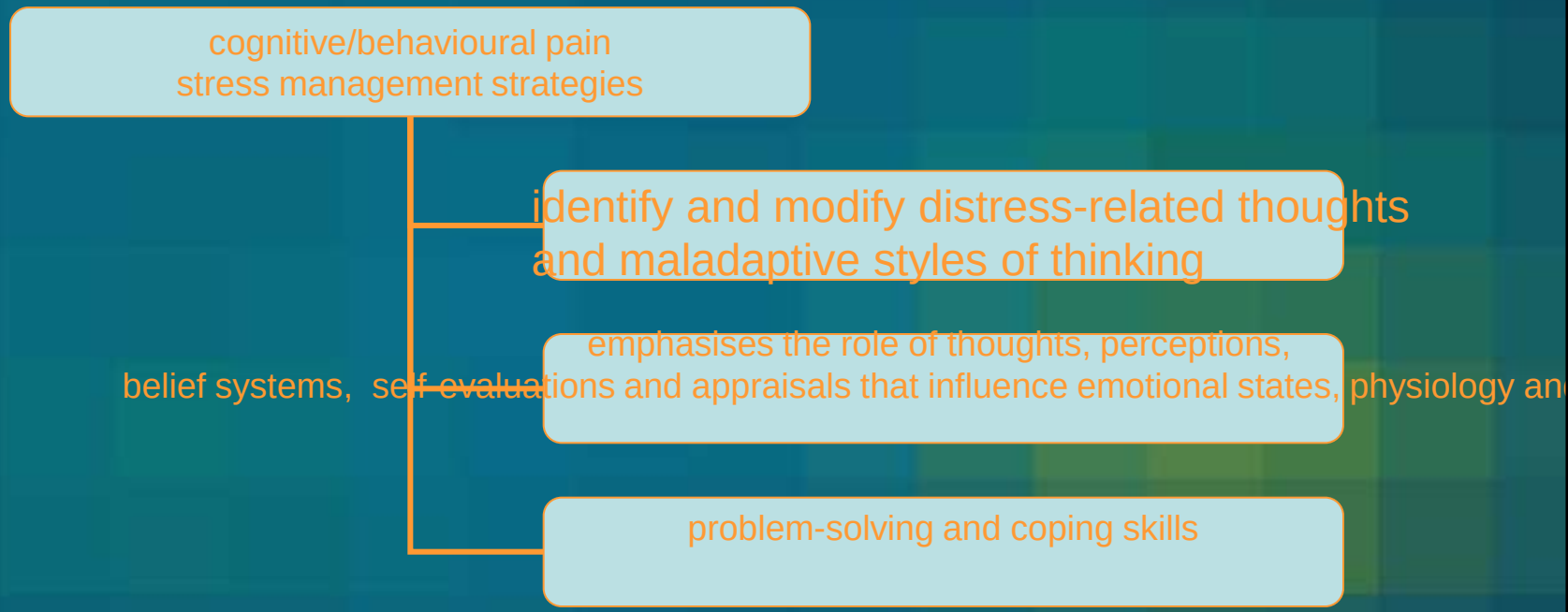
Cognitive-Behavioral Therapy
Technique

Identification of thoughts and beliefs that exacerbate stress

Taught more effective stress coping skills

Often incorporating relaxation

Given assignments to work with coping skills


cognitive/behavioural pain
stress management strategies
identify and modify distress-related thoughts and maladaptive styles of thinking
emphasises the role of thoughts, perceptions, belief systems, self-evaluations and appraisals that influence emotional states, physiology an
problem-solving and coping skills