

Tension type headache

Study Details	Patients	Interventions	Outcome measures	Effect size	Comments
<p>Author & Year: D'Souza et al, 2008¹⁸²</p> <p>Study design: RCT</p> <p>Comparison: Written emotional disclosure vs neutral writing control</p> <p>Setting: University psychology department</p> <p>Duration of follow-up: 3 months</p>	<p>Patient group: Undergraduate psychology students with either migraine or TTH</p> <p>Inclusion criteria: Fulfilled IHS criteria for either migraine or tension headache. Headaches at least twice per week that were of moderate or severe intensity Or migraine headache at least once a month.</p> <p>Exclusion criteria: Headaches suspected to be due to neurological disease, alcohol abuse or a primary medical disorder or those currently in psychotherapy or counselling.</p> <p>All patients N: 141 (51 tension headache, 90 migraine) Drop outs: 6</p> <p>Tension Headache group Age (mean, SD): 20.27 (2.30) M:F (n, %): 42:9 (82.4: 17.6)</p> <p>Group 1 – Written emotional disclosure N: 17 Age (mean): NR for any group Drop outs: 0</p>	<p>Group 1 Written emotional disclosure Four sessions over 2 weeks (four 20 min sessions over 2 consecutive weeks). Standard instructions to write about 'a trauma or upheaval or stressful experience that you may be experiencing right now or that you experienced at some other time in your life', particularly 'the most stressful that you have experienced and is the most significant to you' and 'ideally one that you have not talked about in detail with others'. Participants were encouraged to write about the facts as well as their deepest feelings and to try to write about the same event for all four writing days. Finally they were encouraged to 'tell a story' and consider writing about how the event has affected their relationships, health or headaches. Writings were left with the research team at the end of the session.</p> <p>Group 2 neutral writing control Four sessions over 2 weeks (four 20 min</p>	<p>Change in patient-reported headache frequency (in last month (Mean SD)) Follow-up 3months (adjusted follow up adjusted for baseline value)</p> <p>Patient-reported headache intensity (0-10 scale 10=bad, mean (SD)) Follow-up 3months (adjusted for baseline value)</p>	<p>Tension headache group Group1: Baseline 9.94 (SD 7.22) Follow-up 12.24 (SD 7.90) Adjusted: 12.56 (SEM 1.60) Group 2: Baseline 9.65 (SD 6.64) Follow-up: 11.24 (SD 9.01) Adjusted: 11.74 (SEM 1.60)</p> <p>Migraine group Group1: Baseline: 9.65 (SD 6.46) Follow-up 9.00 (SD 5.81) Adjusted 9.37 (SEM 0.93) Group 2: Baseline 11.77 (SD 7.58) Follow-up 8.97 (SD 6.14) Adjusted 8.35 (SEM 0.94)</p> <p>Tension headache group Group1: Baseline 5.47 (SD1.81) Follow up 5.00 (SD 1.62) Adjusted 5.00 (SEM 0.44) Group 2: Baseline 5.43 (SD 1.79) Follow up 4.71 (SD 1.80) Adjusted 4.73 (SEM 0.44)</p> <p>Migraine group</p>	<p>Funding: Arthritis Foundation and grant from National Institute of Health</p> <p>Limitations: Blinding unclear. Students were given course credit or money for participating. Migraine group headache frequency not comparable at baseline.</p> <p>Additional outcomes: Mood immediately following intervention. Physical</p>

Study Details	Patients	Interventions	Outcome measures	Effect size	Comments
	<p>Group 2 - Neutral writing control N: 17 Drop outs: 1 (but did complete follow-up)</p> <p>Group 3 - Relaxation training N=17 Drop outs: 0</p> <p>Migraine Age (mean): 21.44 (SD 5.47) M:F (n, %): 80:10 (88.9: 11.1)</p> <p>Group 1 – Written emotional disclosure N: 31 Age (mean): NR for any group Drop outs: 3</p> <p>Group 2 - neutral writing control N: 31 Drop outs: 1</p> <p>Group 3- relaxation training N: 28 (results not reported in this table)</p>	<p>sessions over 2 consecutive weeks). Engaged in time management writing to control for expectations, number of sessions, effort and attention from laboratory personnel received by both active groups. Participants wrote about their activities for the past week (session 1) and past 24h (session 2) and their planned activities for the next 24h (session 3) and next week (session 4). Instructions asked participants to write only about their actions but to refrain from writing about their feelings or opinions.</p> <p>Not encouraged to practice at home.</p> <p>Group 3- relaxation training results not reported in this table.</p> <p>All patients Completed prospectively a brief diary each evening during the follow-up period, recording the presence and severity of headaches each day.</p>	<p>Headache specific QoL (MIDAS) Follow-up 3months (adjusted follow up adjusted for baseline value)</p>	<p>Group1: Baseline 6.39 (SD 1.52) Follow up 5.23 (SD 2.28) Adjusted 5.25 (SEM 0.34)</p> <p>Group 2: Baseline 6.35 (SD 1.14) Follow up 5.55 (SD 1.69) Adjusted 5.60 (SEM 0.34)</p> <p>Tension headache group Group1: Baseline 8.24 (SD 8.84) Follow up 8.35 (SD 8.89) Adjusted 9.23 (SEM 1.43)</p> <p>Group 2: Baseline 9.24 (SD 6.53) Follow-up 7.29 (SD 7.82) Adjusted 7.73 (SEM 1.42)</p> <p>Migraine group Group1: Baseline 13.35 (SD 11.83) Follow-up 9.87 (SD 8.79) Adjusted 10.05 (SEM 1.62)</p> <p>Group 2: Baseline 15.35 (SD 12.25) Follow up 10.13 (SD 11.49) Adjusted 9.13 (SEM 1.63)</p>	<p>symptoms.</p> <p>Notes: Randomisation: random numbers table in blocks of 6; performed separately for the tension and migraine headache samples. ACA</p>

Abbreviations: NR=not reported, M/F=male/female, N= number of patients, SD=Standard deviation, SE=Standard error, ITT=Intention to treat analysis, CI=confidence interval

Study Details	Patients	Interventions	Outcome measures	Effect size	Comments
<p>Author & Year: Larsson & Melin, 1986⁴⁷⁷</p> <p>Study design: RCT</p> <p>Comparison: Relaxation training vs information contact</p> <p>Setting: 2 secondary schools, Sweden</p> <p>Duration of follow-up: 6 months (3 week baseline, 5-6 week treatment, 3-4 week Post-measurement period)</p>	<p>Patient group: Adolescents with TTH and combined TTH and migraine.</p> <p>Inclusion criteria: Age 16-18 years; Duration of headache >1 year; Symptom frequency of at least once per week (defined as chronic headache).</p> <p>Exclusion criteria: Somatic disease e.g. acute infection</p> <p>All patients N: 31</p> <p>Group 1 – relaxation training N: 11 (10 F, 1 M) Age (mean): NR Headache type: TTH 9, combined 2 Drop outs: 1</p> <p>Group 2 – information contact N: 13 (13 F) Age (mean): NR Headache type: TTH 11, combined 2</p>	<p>Group 1 relaxation training 9 sessions conducted by graduate students in clinical psychology (first 2 sessions) and a child psychiatrist (next 5 sessions) administered for 45 minutes twice a week for 5 weeks, following the guidelines of Bernstein and Borkovec, with minor modifications to tailor the treatment to the pupils' everyday problems and needs. The purpose was to teach a rapid relaxation method, 'cue-controlled' or applied to be used regularly in everyday situations in early headache symptoms or increased bodily tensions, particularly in the head muscles. During the first 4 sessions, in a group format of 3-4 individuals, training focussed on teaching discrimination between a tensed and relaxed state of different muscle groups throughout the body. In the following sessions the relaxation training was aimed at teaching and encouraging the pupils to apply the rapid relaxation technique paired with their breathing during which a cue word was subvocalised. The importance of regular home practice, at least twice a day, for 15-20 min, was emphasised. No taped or written instructions were provided for the pupils throughout the study.</p> <p>Group 2 information contact During the first 4 sessions the pupils met 2 clinical psychologists and were informed about the outlines of the treatment, prevalence and sex differences in chronic headache, and performed a behavioural analysis in which factors like stress and types of situations in which headache was likely to occur, were particularly noted. The information from this self-performed analysis was discussed with the pupils during the sessions without any direct suggestions</p>	<p>Patient-reported headache frequency (baseline and final values, mean) Post treatment ~9 weeks</p> <p>Patient-reported headache intensity (baseline and final, mean) on a scale of 0-5, with 5 being the worst Peak intensity recorded Post treatment ~9 weeks</p>	<p>Group1: 5.6 at baseline, 3.3 post-treatment, 2.2 at 6 months</p> <p>Group 2: 5.1 at baseline, 4.5 post-treatment, 4.2 at 6 months</p> <p>Difference: 2,28-6.4 P value: <0.01</p> <p>Group1: 3.4 at baseline, 2.6 post-treatment, 3.1 at 6 months</p> <p>Group 2: 3.4 at baseline, 3.3 post-treatment, 3.1 at 6 months</p>	<p>Funding: Swedish Board of Education</p> <p>Limitations: Randomisation and allocation concealment unclear. Investigator not blind to treatment. Unclear if assessor was blinded.</p> <p>Average age per group not reported. Not all outcomes reported. Participants were paid.</p> <p>Additional outcomes: Headache sum Headache-free days Headache duration Stress Medicine intake (data not reported)</p> <p>Notes: Mixed headache types. ACA</p>

Study Details	Patients	Interventions	Outcome measures	Effect size	Comments
	<p>Drop outs: 2</p> <p>Group 3 self-registration Abbreviations: NR=not reported, M/F=male/female, N= number of patients, SD=Standard deviation, SE=Standard error, ITT=Intention to treat analysis, CI=confidence interval, TTH=tension type headache Drop outs: 0</p>	<p>from the therapist to change the situation. At the end of the first sessions the pupils' experiences for therapeutic improvement were rated. During the following 5 sessions the child psychiatrist briefly discussed common psychological and physiological causes of migraine and TTH and summed up the results of each individual's medical examination and headache diagnosis. No attempt was made to give the pupils specific, individual advice related to their headache complaints and particular questions raised were answered deliberately on a common sense level.</p> <p>Group 3 self-registration - Results not reported in this table</p> <p>All patients The pupils were given several psychological tests, aimed at assessing anxiety, depression and the experience of stress. Following these, a medical-neurological examination was performed and baseline phase was initiated, they kept a headache diary, where headache activity was recorded 4 times/day. Pupils continued to keep their headache diaries for at least 3 weeks after completed treatment. The participants in the relaxation group were encouraged during the last session to continue to practice relaxation on a daily regular basis.</p>			

Abbreviations: NR=not reported, M/F=male/female, N= number of patients, SD=Standard deviation, SE=Standard error, ITT=Intention to treat analysis, CI=confidence interval, TTH=tension type headache