

**Table 2: Studies of hypnotherapy for cancer- or cancer therapy related pain**Katja Boehm, CAM-Cancer Consortium. [Hypnotherapy \[online document\]](#). November 9, 2014.

First author, year	Study type	Participants (diagnosis, N)	Intervention groups	Results	Conclusion / Comments
Snow, 2012 <sup>33</sup>	RCT	Adult lung cancer patients undergoing bone marrow aspirates and biopsies	<ol style="list-style-type: none"> <li>Hypnosis</li> <li>Standard care</li> </ol>	(1) difference in pain scores between the 2 groups was not statistically significant	Brief hypnosis administered concurrently may not adequately control pain
Lang, 2008 <sup>20</sup>	RCT	Adults patients receiving a percutaneous tumour treatment, 201	<ol style="list-style-type: none"> <li>Hypnotherapy</li> <li>Empathic attention</li> <li>Standard care</li> </ol>	(1) Experienced less pain and anxiety than those in (2) and (3) at several time intervals and received significantly fewer median drug units (mean, 2.0; interquartile range [IQR], 1–4) than patients in groups (3) (mean, 3.0; IQR, 1.5–5.0; $p=0.0147$ ) and (2) (mean, 3.50; IQR, 2.0–5.9; $p=0.0026$ )	Procedural hypnosis including empathic attention reduces pain, anxiety, and medication use. Empathic approaches without hypnosis that provide an external focus of attention and do not enhance patients' self-coping can result in more adverse events
Lioffi, 1999 <sup>21</sup>	RCT	Pediatric leukemia patients, 30	<ol style="list-style-type: none"> <li>Hypnosis</li> <li>A package of CB coping skills</li> <li>No intervention</li> </ol>	Patients of (1) and (2) reported less pain-related anxiety compared to (3) (1) VS. (3), $p=0.0001$ ; (2) VS. (3), $p=0.0056$ ; (1) VS. (2), $p=0.0002$ . Observed distress was also much reduced in (1) and (2) (1) VS. (3), $p=0.0001$ ; (2) VS. (3), $p=.003$ ; (1) VS. (2), $p=.0025$	Hypnosis and CB coping skills are effective in preparing paediatric oncology patients for bone marrow aspiration
Lioffi, 2003 <sup>22</sup>	RCT	Pediatric patients with leukemia or non-Hodgkin's lymphoma, 80	<ol style="list-style-type: none"> <li>Direct hypnosis with standard medical treatment</li> <li>Indirect hypnosis with standard medical treatment</li> <li>Attention control with standard medical treatment</li> <li>Standard medical treatment</li> <li>Manual-based clinical hypnosis</li> </ol>	Patients in (1) and (2) reported less pain ( $p<0.001$ ) and anxiety ( $p<0.001$ ) and were rated as demonstrating less behavioural distress than those in (3) and (4) ( $p<0.001$ )	Hypnosis is effective in preparing paediatric oncology patients for lumbar puncture, but the presence of the therapist may be critical

<b>Lioffi, 2006</b> <sup>23</sup>	RCT	Paediatric patients with leukemia or non-Hodgkin's lymphoma, 45	<ol style="list-style-type: none"> <li>1. EMLA group (EMLA=mixture of lidocaine and prilocaine) was treated with EMLA cream applied to intact skin for approximately 60 min before the procedure;</li> <li>2. EMLA plus hypnosis group (EMLA+hypnosis) was administered EMLA cream and was also treated with hypnosis;</li> <li>3. the EMLA plus attention group (EMLA + attention) was administered EMLA cream and met with the therapist</li> </ol>	<p>Group (2) reported less anticipatory anxiety (<math>p&lt;0.001</math>) and less procedure related pain (<math>p&lt;0.001</math>) and anxiety (<math>p&lt;0.001</math>)</p> <p>Group (2) were rated as demonstrating less behavioural distress during the procedure</p>	Level of hypnotizability was significantly associated with the magnitude of treatment benefit
<b>Lioffi, 2009</b> <sup>24</sup>	RCT	Children with various types of ca, 45	<ol style="list-style-type: none"> <li>1. EMLA group (EMLA=mixture of lidocaine and prilocaine) was treated with EMLA cream applied to intact skin for approximately 60 min before the procedure;</li> <li>2. EMLA plus hypnosis group (EMLA+hypnosis) was administered EMLA cream and was also treated with hypnosis;</li> <li>3. EMLA plus attention group (EMLA + attention) was administered EMLA cream and met with the therapist</li> </ol>	<p>Patients in group (2) reported less anticipatory anxiety, and less procedure-related pain and anxiety, and were rated as demonstrating less behavioural distress during the procedure than patients in groups (1) and (3)</p> <p>Parents whose children were randomized to (2) experienced less anxiety during their child's procedure than parents whose children had been randomized to the other two groups.</p>	The therapeutic benefit of the brief hypnotic intervention was maintained in the follow-up.
<b>Montgomery, 2007</b> <sup>13</sup>	RCT	Adults with mamma ca, 200	<ol style="list-style-type: none"> <li>1. 15-minute presurgery hypnosis session conducted by a psychologist</li> <li>2. nondirective empathic listening (attention control)</li> </ol>	(1) showed improved patient-reported pain intensity, pain unpleasantness, nausea, fatigue, discomfort, and emotional upset compared to (2) ( $p<0.0001$ )	Hypnosis was superior to attention control regarding propofol and lidocaine use; pain, nausea, fatigue, discomfort, and emotional upset at discharge; and institutional cost
<b>Syrjala, 1992</b> <sup>3</sup>	RCT	Adults with haematological ca, 67	<ol style="list-style-type: none"> <li>1. Hypnosis training</li> <li>2. Cognitive behavioural coping skills training</li> <li>3. Therapist contact control</li> <li>4. Treatment as usual</li> </ol>	Hypnosis was effective in reducing reported oral pain ( $p=0.031$ )	Nausea, emesis and opioid use did not differ

Zeltzer, 1982 26	CCT	Children and adolescents with leukemia or non-Hodgkins lymphoma, 49	<ol style="list-style-type: none"> <li>1. Hypnosis group</li> <li>2. Non-hypnosis group</li> </ol>	<p>During bone marrow aspiration pain was reduced to a large extent in group (1) (<math>p &lt; 0.001</math>) and to a smaller but significant extent by nonhypnotic techniques (<math>p &lt; 0.01</math>), and anxiety was significantly reduced in group (1) alone (<math>p &lt; 0.001</math>).</p> <p>During lumbar puncture only in group (1) significantly reduced pain (<math>p &lt; 0.001</math>); anxiety was reduced to a large degree by hypnosis (<math>p &lt; 0.001</math>) and to a smaller degree by nonhypnotic techniques (<math>p &lt; 0.05</math>).</p>	Hypnosis was shown to be more effective than nonhypnotic techniques for reducing procedural distress in children and adolescents with cancer
Lioosi, 2001 28	RCT	Palliative patients with various cancer types, 50	<ol style="list-style-type: none"> <li>1. Routine medical and psychological care + Hypnotherapy</li> <li>2. Routine medical and psychological care</li> </ol>	Hypnosis improved outcomes for anxiety ( $p < 0.01$ )	No long-term follow-up Those too unwell were excluded. (representative!)

RCT = randomized clinical trial  
CCT = controlled clinical trial