

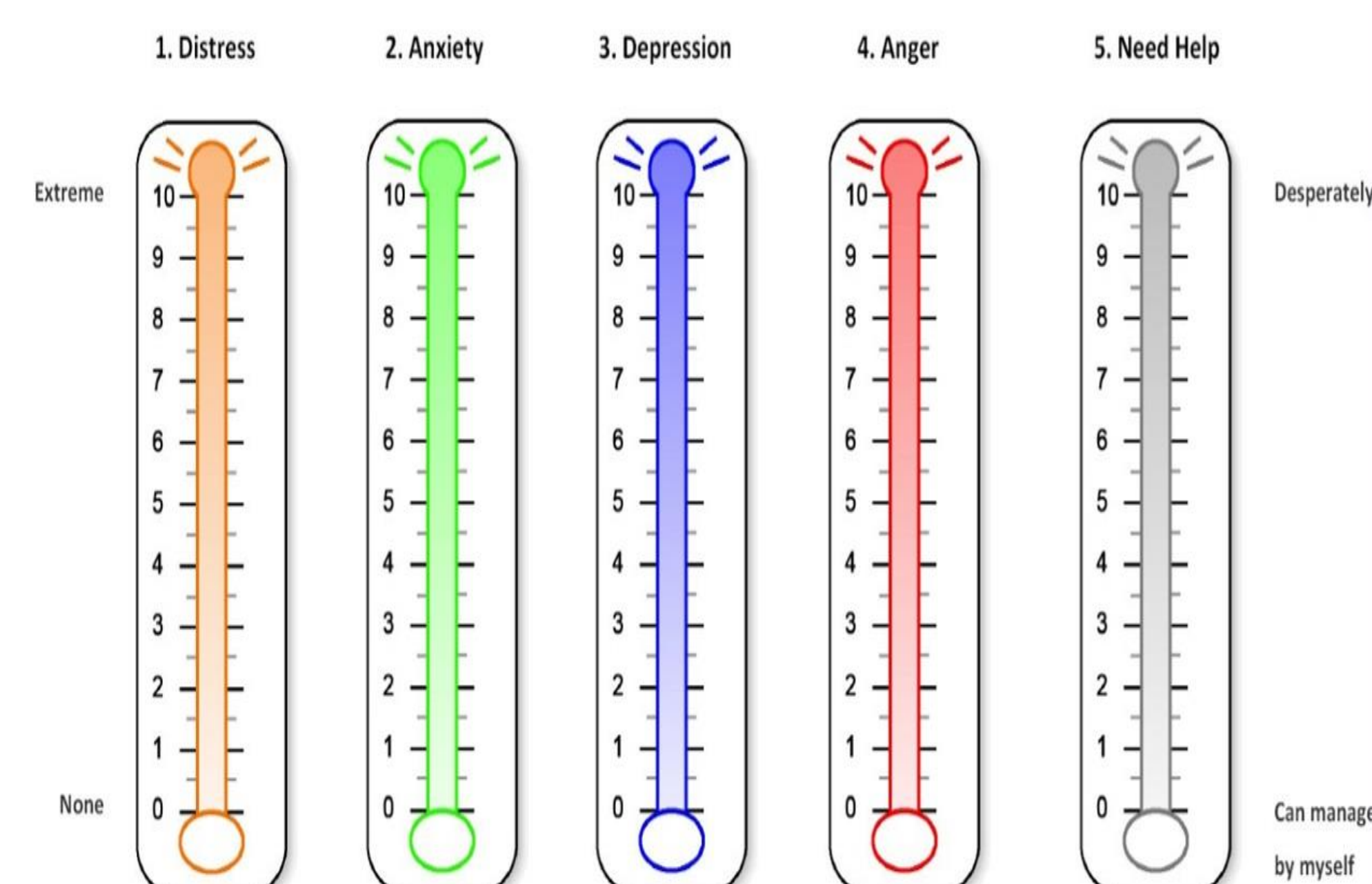
Introduction

Every time a patient undergoes a medical procedure, unpredicted personal stress occurs. According to the available literature, the hypnotic communication technique has been used to reduce stress and pain during several major invasive procedures.

Objectives

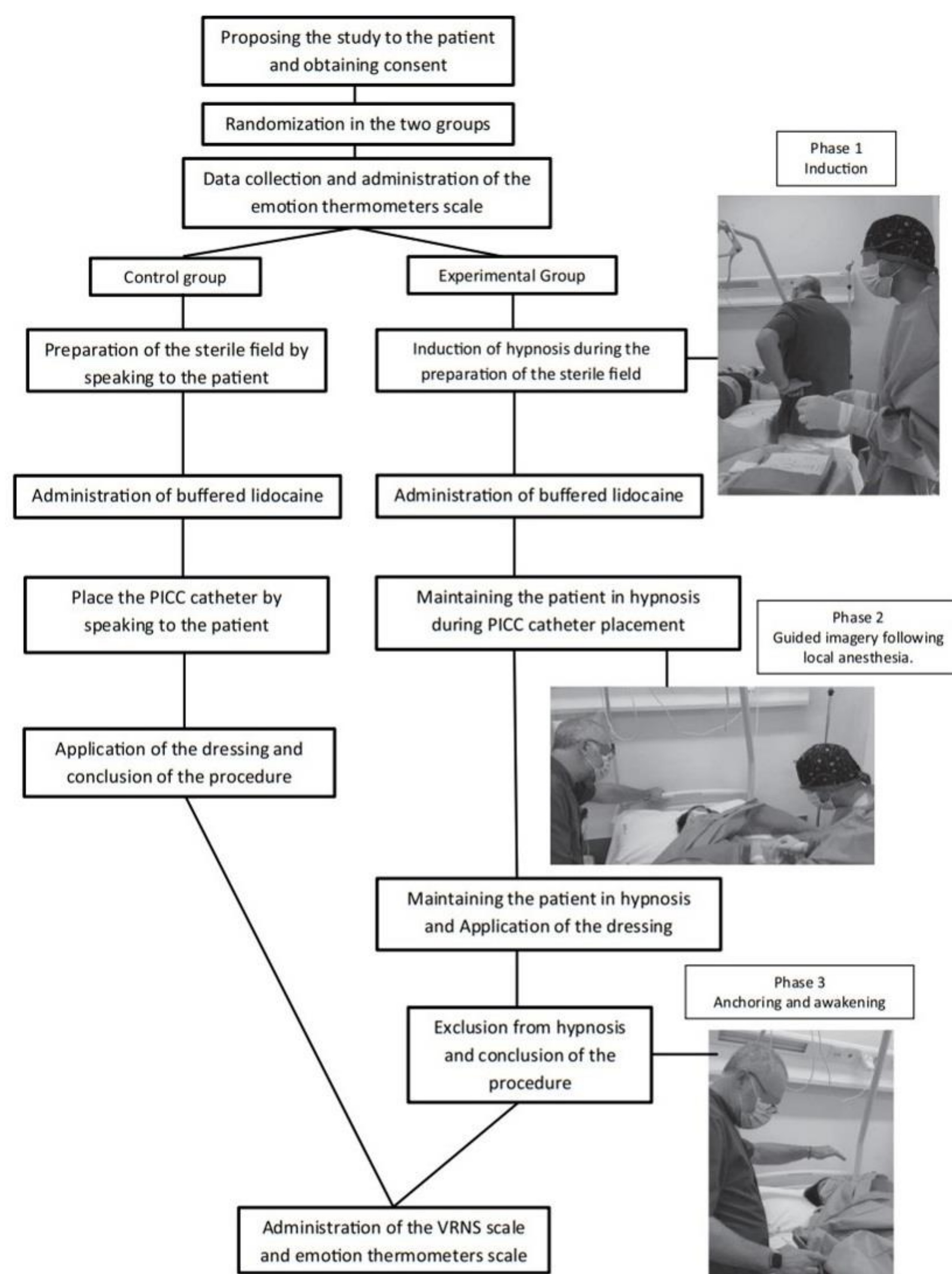
The primary goal of this study was to compare the effectiveness of hypnotic communication combined with buffered Lidocaine, versus buffered Lidocaine alone, on patients' negative emotions while undergoing Peripherally Inserted Central Venous Catheter (PICC) placement. Secondary aims were evaluating patients' pain, satisfaction, and procedure timing and costs.

Emotion Thermometer Tool

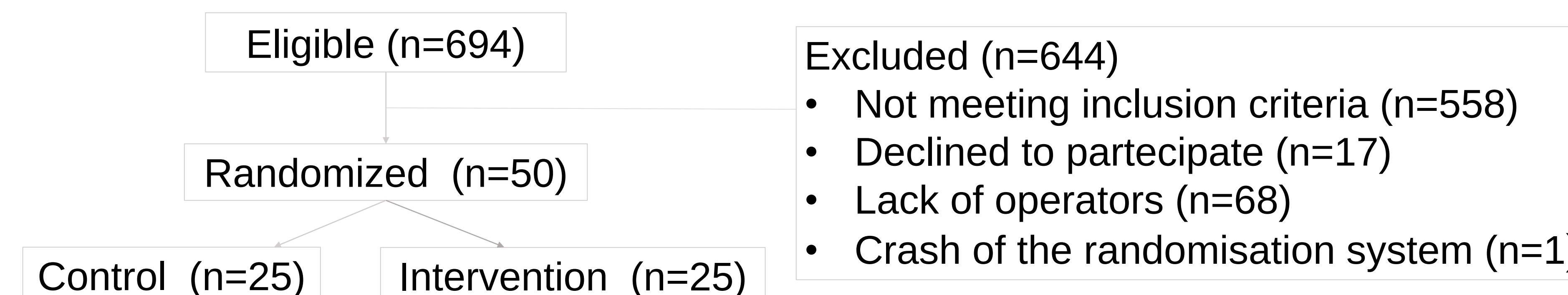


Methods

A randomized controlled trial was conducted in an Italian Hospital involving patients who needed a 4 FR Single Lumen PICC, with any disease or condition, aged over 18, cognitively oriented, able to hear, and willing to give consent. Emotional assessment was performed using the Emotion Thermometer Tool before and after performing the procedure.



Enrollment



Results

Emotion and pain experienced during the PICC insertion.

Clinical Outcomes	All (n 50)	Experimental group (n 25)	Control group (n 25)	P value
Emotion Thermometers Scale variation (post-pre)	Mean difference (SD)			
Stress Score	-2.60 (2.82)	-3.32 (3.17)	-1.88 (2.26)	.0707
Depression Score	-2.12 (2.712)	-2.92 (2.93)	-1.32 (2.25)	.0353*
Anger Score	-2.08 (2.99)	-3.04 (3.40)	-1.12 (2.19)	.0215*
Help Score	-1.06 (3.34)	-1.83 (3.81)	-.32 (2.70)	.1142
Anxiety Score	-2.30 (3.01)	-2.24 (2.76)	-2.36 (3.30)	.8897
Total score	-10.00 (9.68)	-13.13 (11.43)	-7.00 (6.56)	.0280*
VNRS (post test only-T2)				
VNRS Score (mean, SD)	1.52 (1.92)	1.44 (2.06)	1.60 (1.80)	.7716

* $p < .05$.

Effectiveness and satisfaction for hypnotic treatment.

Data	Items	Experimental group (n 25)
Level of satisfaction of the treatment n(%)	<i>Pleasant experience</i>	21 (84.0)
	<i>Neutral experience</i>	4 (16.0)
	<i>Negative experience</i>	0 (0.0)
Willingness to repeat the experience for other hospital treatments n(%)	Yes	22 (88.0)
	No	3 (12.0)

Conclusion

- Strengths: The use of hypnotic communication has been found to be an effective method for reducing the emotional burden during PICC insertion, and, moreover, most of the patients were satisfied
- Limits: The sample size was not reached due to the COVID pandemic, this could have resulted in an underpowered study
- Future: Further studies are needed to define the link between hypnotic communication, emotional distress and pain response in patients undergoing PICC insertion

- No significant differences were found in baseline characteristics, except for gender, which it was shown to be mostly female ($p = .045$)

- Hypnotic communication was successful in 80% of cases

- In the per-protocol analysis treatment's group data dropped, with a statistically significant reduction in stress

- Organizational results: no statistically significant differences ($p = .1354$) in terms of timing and costs