

Bioelectrical Meridian Therapy (BMT) is safe for the therapists and pain-free participants.

The efficacy and safety of Bioelectric Meridian Therapy on pain: a pilot randomised, assessor-therapist blinded, sham controlled study

INTRO

- BMT is a non-invasive, drug-free pain management method, combining gentle stroking with electrical stimulation from a device (ABMMA PRO), administered by a therapist.
- While anecdotal evidence supports for its effects exists, research evidence is lacking.

AIMS

- to evaluate whether BMT induced analgesia and affected tactile acuity at and distal to the treatment site
- to examine whether BMT was safe for therapists and participants.

METHODS

- 30 healthy pain-free participants
- Randomised, cross-over, sham-controlled design
- Real BMT: light stroking with electrical stimulation on the back and abdomen
- Sham BMT: light stroking without electrical stimulation on the back and abdomen
- Outcome measures
 - Pressure pain thresholds (PPT) and pressure at a suprathreshold pain level of 4/10 (SUPRA)
 - 2-points discrimination test (2DPT)
 - Skin temperature
- Test sites: lower back, calves, wrist, feet
- Changes in PPT, SUPRA, 2DPT and skin temperature were analysed using 3-way repeated measures of ANOVA

RESULTS

Demographics

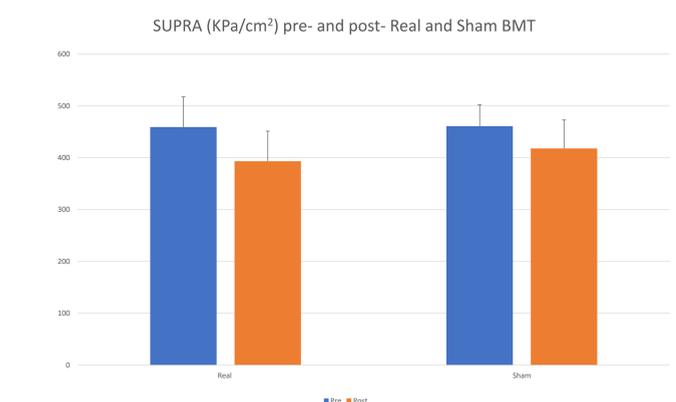
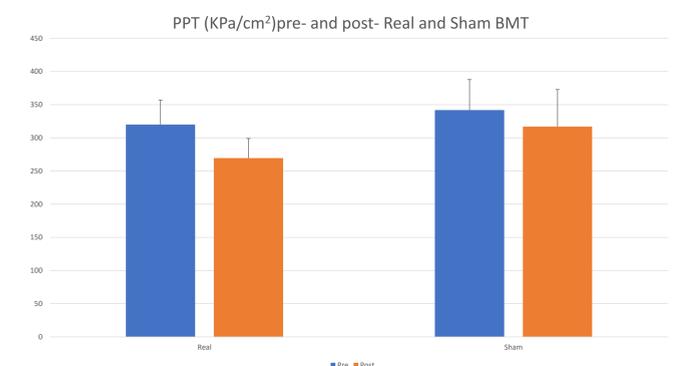
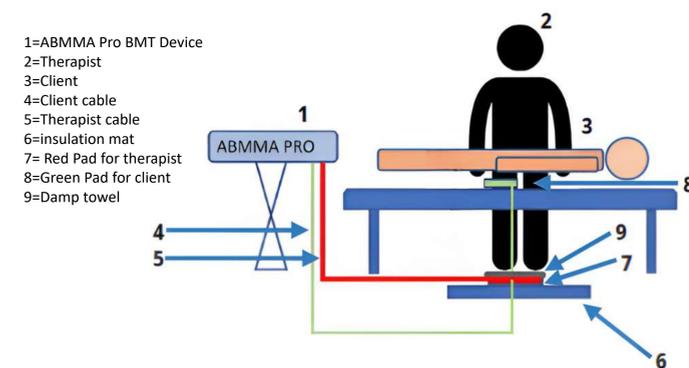
- 27 participants (1 dropout, 2 missing data)
- Average age=30±7.4 years
- 11 males and 16 females
- 55.6% North-East Asian descent
- 55.6% had postgraduate education

Outcomes

- Mean anxiety score was 34.09±8.25 (STAI Y1), 1.9±2.9 (PHQ-4).
- Mean quality of life score 82.4±10.8 (EQ VAS)
- Minor adverse events
 - 1 slightly tired after real BMT,
 - 1 experiencing soreness at the sham treatment site,
 - both resolving without medical care)
- No adverse events for therapist.
- Initial blinding was successful, but participants distinguished real from sham BMT during the second visit due to electrical stimulation
- Neither skin temperature nor 2PDT showed any changes.
- Reductions in PPT ($F=6.48$, $p=0.02$) and SUPRA ($F=7.10$, $p=0.01$) noted post-intervention in both groups without interactions.

CONCLUSION

BMT is safe for healthy participants and therapists. It does not alter tactile acuity or skin temperature, although the gentle stroking may cause temporary hyperalgesia immediately after the intervention. Further research should explore BMT's effects among clinical populations and the potential for delayed analgesia.



Acknowledgement

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