#418 Graded Motor Imagery is effective in women suffering Genito-Pelvic Pain/Penetration Disorder. A randomized controlled trial

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Hypothesis / aims of study

Genito-Pelvic Pain/Penetration Disorder (GPPPD) is a common condition characterized by persistent or recurrent pain during intercourse for more than six months, categorized as a sexual dysfunction in the Diagnostic and Statistical Manual of Mental Disorders. As GPPPD shares similarities with other persistent pain conditions like phantom limb pain or complex regional pain syndrome, it should be treated as persistent pain. Neuroplastic changes in the peripheral and central nervous systems have been observed in women with GPPPD. Graded Motor Imagery (GMI) has shown promise in managing similar pain states but has not been studied in GPPPD. This study aimed to assess the efficacy of an online GMI program on pain intensity and sexual function in women with GPPPD.

Study design, materials and methods

A randomized controlled trial was conducted to compare the effects of a GMI program with a control group in women with GPPPD. After providing written consent, participants completed baseline characteristics and outcome assessments via an online form, along with a brief explanatory video and written procedure information. Participants were randomized into intervention or control groups. The intervention group received an online GMI program for six weeks, divided into three phases:

1. • **Left/right discrimination (Implicit Motor Imagery)**
   • Images representing abdominal-perineal area were shown. Participants had to indicate whether the photograph represented the left or right side through a web version of an App.
2. • **Guided Imagery (Explicit Motor Imagery)**
   • Through audio recordings participants were asked to image and visualize pain-related activities, starting with the less painful.
3. • **Gradual Exposure**
   • Participants were given a document with 6 different activities they had to achieve, starting with self-exploration and progressing to sexual intercourse. Activities were based on sensate focus, by Masters & Johnson.

The control group completed outcome assessments every two weeks. Post-intervention, the control group gained access to the full GMI program.

Pain intensity was assessed using the Visual Analogue Scale (VAS) before and after the intervention and between each phase of the program. Sexual function was evaluated using the short version of the Female Sexual Function Index (FSFI-6). Statistical analysis involved mixed model two-way repeated measures ANOVA to assess within-subject and between-subject differences.

Results and interpretation

Of the 96 recruited participants, 9 did not meet inclusion criteria, and 4 refused to continue with the intervention, leaving 83 women for analysis. Significant improvements in pain intensity were observed over time within the GMI group ($p<0.05$), with a mean reduction from 6.9 to 4.7 on the VAS and an effect size of 0.339. Between-group analysis showed a significant difference between the GMI group and the control group ($p<0.05$), with an effect size of 0.239. Sexual function showed non-significant improvement within the GMI group, while the control group worsened. No significant differences were found between the groups regarding sexual function.

This study represents the first investigation of a GMI program in women with GPPPD. The GMI program produced significant improvements in pain intensity but non-significant improvements in sexual function. This aligns with the focus of GMI on desensitizing the central nervous system rather than directly addressing sexual function. The online delivery of the program enhances accessibility for women hesitant about face-to-face therapy.

Conclusions

Graded Motor Imagery emerges as an effective treatment option for women with GPPPD, significantly reducing pain intensity. Future research should explore complementary interventions targeting sexual function to provide comprehensive care for women with this persistent pain condition, ensuring accessibility to all affected individuals.

References

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