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OPEN PEER REVIEW

The Effect of Hypnotherapy on the Pain Intensity of Endometriosis Patients Treated with Dienogest: A Pilot Double-Blind Randomized Clinical Trial

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About this report

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1 Original submission

2 comments · 19 May 2023 – 19 May 2023

Referee 1 Reviewer

MAJOR REVISION 19 May 2023

What does it mean?
It needs to be edited.
It is not true; many studies have been done in this field.
Based on what reference?
How was the content of the meeting arranged?
How did you determine the level of hypnotizability?
Where was the first face-to-face meeting held? Why were the rest of the meetings held online?
The important step in hypnosis is conditioning. How did you prepare the patients?
What is the value of MCID? Continue the discussion with this item.
The two groups had to be matched in terms of conditions, so the problem was the selection of samples and entry and exit criteria.
In the discussion, it is better to use studies similar to your work (target group, type of hypnosis) because a change in any of the mentioned variables can cause many changes in the outcome.
The treatment protocol is not one of the strengths of your study.
It would help if you clarified your treatment protocol completely. What problems? Did you have counseling along with hypnosis?

Referee 2 Reviewer

MAJOR REVISION 19 May 2023

The topic is important; however, there are some comments in the attachment. Moreover, the manuscript needs English language corrections.

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Greetings to the esteemed reviewers,

1. All the comments on the manuscript were implemented and highlighted; spacing and font were checked, and the manuscript has been sent to you in both PDF and Word versions.

2. Items that required minor correction were applied in the text.

3. Items such as the results in the abstract, the results in the manuscript, and the discussion were rewritten and translated again.

4. In the Persian draft, specialized terms were written in English so that the translation would not have problems.

5. In rewriting and applying the results, only the first paragraph was implemented, because the second, important and fundamental comment included two points, namely merging the two tables and why the Friedman and Mann-Whitney means differ from each other, which is due to missing data. I did not merge the tables, because the scientifically correct practice is that within-group and between-group tables are merged only when the means are equal; in the current report, however, because of missing data, the Friedman results naturally differ from the Mann-Whitney results, since the Friedman test excludes missing values from the calculation of the mean and removes their number, whereas the Mann-Whitney test reports the mean and the results with the missing values taken into account.

6. All references were checked for style and order; the journal abbreviations were looked up in PubMed in each journal's record (as the title abbreviation), inserted, and highlighted.

7. The CONSORT diagram was added.

8. On the reviewer's recommendation, the title of the article was changed to a pilot, double-blind RCT.

9. The rewritten items have been attached below in Persian.

With thanks to you, esteemed professors, for your support.

Comment answer

comment:Where did it conduct?

comment: Which type of randomization was used?

Comment answer:: In this preliminary study (a pilot study double- blind RCT), which was conducted from November 2021 to July 2022, 22 patients (18 to 45 years old) with endometriosis treated with dienogest from Akbarabadi Hospital in Tehran were enrolled into the study using a random method (blocking) into two control groups (11 people) and the intervention (11 people) were assigned

comment: Add used descriptive statistics. : Comment answer: Descriptive statistics were reported by Fisher's exact test

Comment in the abstract result

comment:report the pain scores in both groups.

comment:report the pain reduction in both groups.

Comment answer:Dysmenorrhea pain score before, after and four weeks after the intervention were 1.25±6.30, 1.08±5.50 and 0.97±4.60, respectively, and the changes in intra-group and intra-group comparisons with effect sizes (respectively, 0.93 and 0.79) were significant (P<0.001). Dyspareunia had significant results in the intragroup comparison (effect size=0.44, P=0.015). But in the out-group comparison, due to the significant decrease in the control group, it was not reported significant (P>0.05). Despite the reduction of chronic pelvic pain after the intervention and 4 weeks later (effect size=0.20), no significant difference was reported in any of the intragroup and outgroup comparisons (P>0.05).

comment:This sentence is related to the previous paragraph. So should be moved there.

Comment answer: Comment answer: Moved to the previous paragraph

comment: Mention the type of this study.

comment: Furthermore, how about registration in IRCT?

Comment answer: The present study is a double-blind preliminary study (preliminary study for future clinical trials) with ethical code IR. MAZUMS. REC .1400.398

and IRCT code IRCT20110827007422N4

comment: Why score of 5? it needs a reference

Comment answer :Reference (18),

comment: It needs revision. Moreover, patient's psychiatric disorder was not important?

Comment answer: History of major or minor psychiatric disorder in the individual or first degree family (father, mother, sister, brother, child),

comment: The past time of verbs must be used in this section.

Comment answer: The sampling method in this study was available in the first stage in order to identify eligible women with endometriosis treated with Dienogest, and in the next stage, the blocking method was used. The numbers were randomly generated with the RANDBETWEEN command in Excel and in the range of 0 to 6. Blinding was performed at the outcome assessor level and evaluation at the analysis level. The researcher who performed the outcome evaluation and data analysis So, It seems comment: that was a double- blind RCT and this must be shown in the title and in type of the study.

Comment answer: He did not know about the status of the samples and he does not know which participant was placed in the control and intervention groups.

comment: Do you mean it was not based on a reference? It needs a reference.

Comment answer: After obtaining informed written consent from the eligible individuals, the demographic information form was completed by the patients of both groups who were treated with Dienogest at the rate of one 2 mg tablet per day based on the standard treatment of the international endometriosis protocols (3).

comment: Put (Box 1)

Comment answer: (Table 1).

comment: I needs correction Box 1. The content of hypnotherapy for endometriosis

Comment answer: **Table 1: The content of the hypnotherapy sessions was as follows:**

comment: Which test was used to assess normal distribution of data?

Shapiro-Wilk test was used to check the normality of the variables

comment: Mention the significant level

A significance level of 0.05 was taken into account.

comment: Do not repeat the values in the text if they have been reported in the tables.

comment: This must be shown in the CONSORT flowchart, not table 1.

comment: How about the normality of data?

Comment answer: The results of Table 1 show that there was no significant difference between the participants in terms of education in the control group (Dienogest) and the intervention group (hypnotherapy and Dienogest) (P=1.000). In terms of age, 6 people in the control group were 19-35 years old and 5 people were more than 35 years old, while in the intervention group, 7 people were in the age range of 19-35 years old and 4 people were more than 35 years old, and the age balance in these two The group was maintained (P=0.655). In terms of occupation, this balance was also maintained, so that 1 person was unemployed in the control group and 3 people were unemployed in the intervention group, and there were 10 and 8 employed people in the control and intervention groups, respectively (P=0.586). Satisfaction with income, social class, level of satisfaction with this social and economic class, and home ownership status were not significantly different in the control and intervention groups (P>0.05). Regarding the history of endometriosis, there were 7 people in the control group and 5 people in the intervention group (P=0.392). During the intervention, one person from the intervention group was excluded from the study due to personal problems, and one person from the control group was excluded from the study because the Dienogest tablet had caused digestive problems and had to stop taking the tablet (Diagram1: CONSORT).

comment: This paragraph must be summarized as There were not significant statistically differences between the groups regard to the demographic characteristics

Comment answer: **Table 1- Comparison of the frequency (frequency percentage) of Demographic variables in the control and hypnotherapy groups at the beginning of the study**

P-Value	hypnotherapy	Control		variables
***1.000**	(36.4%)4	(27.3%)3	Low of Diploma	**Education**
	(63.6%)7	(72.7%)8	Academic	
0.655	(63.6%)7	(54.5%)6	19-35	**Age (year)**
	(36.4%)4	(45.5%)5	>35	
***0.586**	(27.3%)3	(9.1%)1	Unemployed	**occupation**
	(72.7%)8	(90.9%)10	Employed	
***1.000**	(27.3%)3	(27.3%)3	At all	**Satisfaction with income**
	(72.7%)8	(72.7%)8	Almost or completely	
***1.000**	(18.2%)2	(9.1%)1	Low	**Social and economy class**
	(81.8%)9	(90.9%)10	Moderate or high	
***1.000**	(36.4%)4	(36.4%)4	At all	**Social and economic class satisfaction**
	(63.6%)7	(63.6%)7	Almost or completely	
0.528	(50.0%)5	(63.6%)7	owner	**Ownership of**

	(50.0%)5	(36.4%)4	Tenant	**house**
0.392	(54.5%)6	(36.4%)4	No	**Family history of endometriosis**
	(45.5%)5	(63.6%)7	Yes	

* Fisher's exact test

comment: Omit.

Comment answer: Using the Shapirowilk test, we found that the data related to Dysmenorrhea, Dyspareunia, and pelvic pain do not follow normal distribution (P>05).

comment: Omit this table and add P value and effect size to table 2

Table 2- Comparison of pain score over time in two control and hypnotherapy group

Effect size	*P	weeks after 4 intervention	Immediately after intervention	Start of intervention	Group	VAS
0.70	0.001	1.90±0.57	3.20±1.40	4.70±2.41	Control	Dysmenorrhoea
0.93	0.001>	4.60±0.97	5.50±1.08	6.30±1.25	hypnotherapy	
0.44	0.013	1.90±2.02	2.40±2.07	4.00±3.37	Control	Dyspareunia
0.41	0.015	3.50±2.42	4.30±2.91	4.50±3.14	hypnotherapy	
0.27	0.062	1.10±1.10	1.30±1.42	2.10±2.64	Control	chronic pelvic pain
0.20	0.135	1.60±2.01	1.80±2.25	1.80±2.25	hypnotherapy	

* Friedman Test

Using the Shapirowilk test, we found that the data related to Dysmenorrhea, Dyspareunia, and pelvic pain do not follow normal distribution (P>05).The results of Table 3 show that the effect of the group on the dysmenorrhoea at the beginning of the intervention was not significant (P=0.076).

comment: please omit all authors' names in this section. Discussion needs a serious revision. There is not integrity. You must report each result separately in a paragraph and compare with other studies with similar and opposite results. The result of each study should be written and then compare with your result. Punctations also must be considered

comment: Omit this part. It is not proper for discussion.

comment: What do you mean by outgroup? If you mean between the groups, so use " inter groups"

comment: References must be written in parenthesis at the end of sentence.

Discussion

The present study was designed with the aim of determining the effectiveness of hypnotherapy on the pain intensity of endometriosis patients treated with Dienogest. This study was able to achieve three results by holding 8 sessions weekly, individually, online (through WhatsApp virtual

network) and for 30-45 minutes, in the intervention group (women who took 2 mg of Dienogest tablets daily).

slow The first finding of the study indicated that holding hypnotherapy sessions along with the use of Dienogest has significantly reduced Dysmenorrhea in the intervention group compared to the control group. In 2010, a retrospective study by Karin Meissner et al. was conducted in Germany in 2010 with the aim of evaluating the effectiveness of combined treatment of traditional Chinese medicine and hypnotherapy (SART) as a new treatment for endometriosis-related symptoms (32). . In this study, the pain associated with endometriosis, such as dyspareunia and also dyschezia, was investigated and hypnosis was effective in relieving and improving these pains, but it was not reported to be significant. The results of the mentioned study were not completely aligned with the results of this study. In the current study, the amount of complaints of the participants about Dysmenorrhea has been reduced and at a significant level. Another study with a randomized clinical trial design was conducted by Maitri Shah and colleagues in 2014 with the aim of the effectiveness of hypnosis on dysmenorrhea in first-year nursing student girls at the University of Nursing and Midwifery in India (33). In this, they concluded that hypnosis can be effective on primary dysmenorrhea in young girls. The results of this study, like the current study, show the effect of hypnosis on dysmenorrhea. But the participants of this study were only teenage girls who had Dysmenorrhea and did not report any other disease besides it (such as endometriosis). Another semi-experimental study was conducted by Maneisefat et al. in 2014 with the aim of comparing the effectiveness of cognitive behavioral therapy and therapeutic hypnosis on pain self-efficacy and pain intensity in girls with primary dysmenorrhea in Ardabil city (34). In this study, as in the present study, the effect of hypnosis on Dysmenorrhea was confirmed. The important point in this mentioned study, compared to the current study, is the participants and study objectives. The research population in the mentioned study were girls suffering from dysmenorrhea, none of whom had endometriosis, and the aim of the study was to compare two treatments, CBT and hypnotherapy. In the current study, the research community consisted of women with endometriosis. According to the review of various studies, psychological treatments in endometriosis patients will be much more difficult due to chronic pelvic pain and the resulting psychological effects (35,36).

The second finding that has been investigated in the present study is the investigation of hypnotherapy in the relief of chronic pelvic pain. In the current study, although the average score of pelvic pain in the intervention group decreased after the sessions and during follow-up, the amount The difference compared to before the study (in intra-group comparison, referring to Friedman Test results) and control group (in out-group comparison, referring to Mann-Whitney test results) was not significant. In 2011, Karp was able to reduce pelvic pain and migraines in women with endometriosis by performing a supportive intervention that was narrated by several psychologists and gynecologists. This study, like the current study, despite observing the validity of the protocol and determining the correct sample size for the generalizability of the results, did not report significant results, but the average pain in the intervention group was reduced (37). In 2013, Rezaiyan et al conducted a study with the aim of treatment based on acceptance and commitment on catastrophizing and disabling pain in women with chronic pelvic pain. 22 patients with chronic pelvic pain were selected based on the diagnosis of a specialist doctor and clinical interview and were randomly assigned to two intervention and control groups. The intervention group underwent

acceptance and commitment group therapy during 8 sessions of 90 minutes. The results of this study showed that acceptance and commitment group therapy was effective in women with chronic pelvic pain, based on the catastrophizing and disabling pain scale (38). A meta-analysis study showed that psychological treatments can reduce chronic pelvic pain (39). The results of these studies were not in line with the current study, of course, at the beginning of the comparison, it should be said that the type of intervention in the two studies is different from each other, but all of them were psychological interventions, but in hypnosis, the presence of the instructor is more than other psychological interventions for long-term treatment. It will be needed, also in Rezaian's study, the intervention included 8 sessions and 90 minutes in person (39), which is more than the number and time of the sessions compared to the current study. The studies reviewed by the Cochrane system were also face-to-face and psychological.

The third finding of the current study is the investigation of hypnotherapy in the relief of Dyspareunia. In the current study, despite the fact that the average score in the intervention group decreased after the sessions and during follow-up, and the difference compared to before (in the intra-group comparison, referring to The results of the Friedman Test) were significant, but not significant due to the significant decrease of the control group (in out-group comparison, referring to the results of the Mann-Whitney test). A Meta Analysis study in 2020 examined 10 studies in the field of hypnosis and Dyspareunia, this study stated in its results, the effects of hypnosis on pain during sexual activity (aOR= 3.55; 95% CI= 2.63 to 4.79; p = 0.001). In this study, 6 studies did not declare the results of hypnosis interventions effective in reducing Dyspareunia and their significance level was less than 0.05, but due to the striking effects and high significance level of 4 other studies, the overall effective index and significance Dar was announced (40). In 2018(41), Rajaee et al prepared and compiled a study on the effect of cognitive-behavioral hypnotherapy on improving anxiety and sexual performance of women with vaginismus. They found that group, individual and self-hypnosis hypnotherapy can reduce anxiety and improve vaginismus in women. One of the complaints of the women participating in this study was the pain at the beginning of intercourse, which had changed significantly with hypnosis. The results of this study are different from our study, which is due to the degree of dependence of each of the disorders with psychiatric issues. It has been mentioned in various studies that the cause of vaginismus is highly related to the psyche, but endometriosis is a physical and mental disease (42). In the current study of the control group, the score changed significantly after the intervention, the reason for this could be the small sample size, the lack of control of confounders or the importance of the issue of Dyspareunia and the use of drugs or lubricating gels in the control group. This case will be further investigated in the main study, extracted from this research plan.

comment: Write the limitations of your study.

Among the limitations of the current research, we can mention the small number of samples and the impossibility of generalizing to the whole; Also, considering that the statistical population of the study was selected from married women aged 18-45 with endometriosis with the ability to use smartphones and access to the Internet, therefore, it is not possible to generalize to the entire target population.

One of the strengths of this study is the consistent, weekly and individual sessions for each patient; Also, during the week, follow-up of home exercises and reminding of the necessity of doing hypnosis during the day and answering the questions and solving the problems of the patients were

done through phone calls. And, in conducting this study, blinding was done at the evaluator level, which led to the strength of the results. Another strength of this research is the follow-up after 4 weeks after the end of the intervention.

Conclusion

This preliminary study has shown that the treatment of endometriosis with hypnotherapy and Dynogest approach can lead to a significant reduction of pain, especially dysmenorrhea in patients with resistant endometriosis, and also hypnotherapy is a valuable complementary treatment method as part of a multifaceted approach to endometriosis treatment. Although in the current study, the effect of hypnotherapy in reducing dyspareunia was clinically significant, but dyspareunia pain and chronic pelvic pain were not statistically significant, for this reason, the need to conduct more studies in this field with larger samples is recommended.

comment: Use the standard abbreviations for name of journals according to the NLM.

Omit all the months.The first letter of each word of name of journals must be a capital letter.

References

1. Fuldeore MJ, Soliman AM. Prevalence and symptomatic burden of diagnosed endometriosis in the United States: national estimates from a cross-sectional survey of 59,411 women. Gynecol Obstet Invest. 2017;82(5):453-61.
2. Olšarová K, Mishra GD. Early life factors for endometriosis: a systematic review. Hum Reprod Update. 2020;26(3):412-422.
3. Zakhari A, Edwards D, Ryu M, Matelski JJ, Bougie O, Murji A. Dienogest and the risk of endometriosis recurrence following surgery: a systematic review and meta-analysis.Gynecol Minim Invasive Ther. 2020;27(7):1503-1510.
4. Mendes N, Figueiredo B. Psychological approach to endometriosis: women's pain experience and quality of life improvement. Psicologia, Saúde e Doenças. 2012;13(1):36-48.
5. Keckstein J, Becker CM, Canis M, Feki A, Grimbizis GF, Hummelshoj L, et al. Recommendations for the surgical treatment of endometriosis. Part 2: deep endometriosis. Facts, Views & Vision in Obgyn. 2019;11(4):269-297.
6. Ashrafi M, Sadatmahalleh SJ, Akhoond MR, Talebi M. Evaluation of risk factors associated with endometriosis in infertile women. Int J Fertil &Steril. 2016;10(1):11.
7. Jenkinson C, Nnoaham K, Webster P, d'Hooghe T, Zondervan K, Kennedy S, et al. Reprint of: Impact of endometriosis on quality of life and work productivity: a multicenter study across ten countries. F &S Rev. 2019;112(4S1): 15-282.
8. Ezzat L. Medical treatment of endometriosis: an update. Int J Reprod Contracept Obstet Gynecol. 2017;6(10):4187-4192.
9. Raja SN, Carr DB, Cohen M, Finnerup NB, Flor H, Gibson S, et al. The revised International Association for the Study of Pain definition of pain: concepts, challenges, and compromises. Pain. 2020;161(9):1976-1982.
10. Fawole AO, Bello FA, Ogunbode O, Odukogbe A-TA, Nkwocha GC, Nnoaham KE, et al. Endometriosis and associated symptoms among Nigerian women. Obstet Gynecol Int J. 2015;130(2):190-194.

11. McPeak AE, Allaire C, Williams C, Albert A, Lisonkova S, Yong PJ. Pain catastrophizing and pain health-related quality-of-life in endometriosis. Clin J Pain. 2018;34(4):349-56.
12. Evans SF, Brooks TA, Esterman AJ, Hull ML, Rolan PE. The comorbidities of dysmenorrhea: a clinical survey comparing symptom profile in women with and without endometriosis. J Pain Res. 2018;11:31-81.
13. Orr NL, Noga H, Williams C, Allaire C, Bedaiwy MA, Lisonkova S, et al. Deep dyspareunia in endometriosis: role of the bladder and pelvic floor. Sex Med. 2018;15(8):1158-1166.
14. Kor E, Mostafavi SRS, Mazhin ZA, Dadkhah A, Kor A, Arvanagh SH, et al. Relationship between the severity of endometriosis symptoms (dyspareunia, dysmenorrhea and chronic pelvic pain) and the spread of the disease on ultrasound. BMC Research Notes. 2020;13(1):1-8.
15. Sieberg CB, Lunde CE, Borsook D. Endometriosis and pain in the adolescent-striking early to limit suffering: A narrative review. Neurosci Biobehav Rev. 2020;108:866-876.
16. Zarbo C, Brugnera A, Frigerio L, Malandrino C, Rabboni M, Bondi E, et al. Behavioral, cognitive, and emotional coping strategies of women with endometriosis: a critical narrative review. Arch Womens Ment Health. 2018;21(1):1-13.
17. Gonçalves AV, Barros NF, Bahamondes L. The practice of hatha yoga for the treatment of pain associated with endometriosis. BMC Complement Med Ther. 2017;23(1):45-52.
18. Meissner K, Böhling B, Schweizer-Arau A. Long-term effects of traditional chinese medicine and hypnotherapy in patients with severe endometriosis–a retrospective evaluation. BMC Complement Med Ther. 2010;17(6):314-320.
19. Van Niekerk L, Weaver-Pirie B, Matthewson M. Psychological interventions for endometriosis-related symptoms: a systematic review with narrative data synthesis. Arch Womens Ment Health. 2019:1-13.
20. Flynn N. Effect of an online hypnosis intervention in reducing migraine symptoms: A randomized controlled trial .Int J Clin Exp Hypn. 2019;67(3):313-335.
21. Hertzog MA. Considerations in determining sample size for pilot studies. Res Nurs Health. 2008;31(2):180-190.
22. Johnson C. Measuring pain. Visual analog scale versus numeric pain scale: what is the difference?. J Chiropr Med. 2005;4(1):43-44.
23. Bourdel N, Alves J, Pickering G, Ramilo I, Roman H, Canis M. Systematic review of endometriosis pain assessment: how to choose a scale? Human reproduction update. 2015;21(1):136-152.
24. Hawker GA, Mian S, Kendzerska T, French M. Measures of adult pain: Visual analog scale for pain (vas pain), numeric rating scale for pain (nrs pain), mcgill pain questionnaire (mpq), short-form mcgill pain questionnaire (sf-mpq), chronic pain grade scale (cpgs), short form-36 bodily pain scale (sf-36 bps), and measure of intermittent and constant osteoarthritis pain (icoap). Arthritis Care Res (Hoboken). 2011;63(S11):S240-S252.
25. Rezvani Amin M, Siratinayer M, Abadi A, Moradyan T. Correlation between visual analogue scale and short form of McGill questionnaire in patients with chronic low back pain. Qom University of Medical Sciences Journal. 2011;5(1):31-34.
26. Tan G, Rintala DH, Jensen MP, Fukui T, Smith D, Williams W. A randomized controlled trial of hypnosis compared with biofeedback for adults with chronic low back pain. Eur J Pain Suppl. 2015;19(2):271-280.
27. Rice ME, Harris GT. Comparing effect sizes in follow-up studies: ROC Area, Cohen's d, and r. .Law Hum Behav. 2005;29(5):615-620

28.Chapron, C.; Marcellin, L.; Borghese, B.; Santulli, P. Rethinking mechanisms, diagnosis and management of endometriosis. Nat. Rev. Endocrinol. 2019, 15, 666–682.

29.Errero, S.; Evangelisti, G.; Barra, F. Current and emerging treatment options for endometriosis. Expert Opin Pharmacother. 2018, 19, 1109–1125

30.Krabbenborg, I.; de Roos, N.; van der Grinten, P.; Nap, A. Diet quality and perceived effects of dietary changes in Dutch endometriosis patients: An observational study. Reprod. Biomed. Online 2021, 43, 952–961

31. Ata, B.; Yildiz, S.; Turkgeldi, E.; Brocal, V.P.; Dinleyici, E.C.; Moya, A.; Urman, B. The Endobiota Study: Comparison of Vaginal, Cervical and Gut Microbiota Between Women with Stage ¾ Endometriosis and Healthy Controls. Sci. Rep. 2019, 9, 2204

32. Meissner K, Böhling B, Schweizer-Arau A. Long-term effects of traditional Chinese medicine and hypnotherapy in patients with severe endometriosis—a retrospective evaluation. Forsch Komplementmed. 2010;17(6):314-20. Doi: 10.1159/000322890. Epub 2010 Dec 9. PMID: 21196745.

33. Shah M, Monga A, Patel S, Shah M, Bakshi H. The effect of hypnosis on dysmenorrhea. Int J Clin Exp Hypn. 2014;62(2):164-78. Doi: 10.1080/00207144.2014.869128. PMID: 24568323.

34. Farshbaf Manei Sefat F, Abolghasemi A, Barahmand U, Hajloo N. Comparing the Effectiveness of Cognitive Behavioral Therapy and Hypnosis Therapy Pain Self-Efficacy and Pain Severity in Girls with Primary Dysmenorrhea . armaghanj. 2017; 22 (1) :87-103

35. Mackey S, Kao MC. Managing twin crises in chronic pain and prescription opioids. BMJ. 2019 Mar 6;364

36. Vaegter HB, Christoffersen LO, Enggaard TP, Dorte Elise Møller Holdggard S, Lefevre TN, Eltved R, Reisenhus CH, Licht TW, Laustsen MM, Hansson SH,Jensen PF. Socio-demographics, pain characteristics, quality of life and treatment values before and after specialized interdisciplinary pain treatment: results from the Danish clinical pain registry (PainData). Journal of pain research. 2021;14:1215.

37. Karp BI, Sinaii N, Nieman LK, Silberstein SD, Stratton P. Migraine in women with chronic pelvic pain with and without endometriosis. Fertil Steril. 2011 Mar 1;95(3):895-9. doi: 10.1016/j.fertnstert.2010.11.037. Epub 2010 Dec 10. PMID: 21145540; PMCID: PMC3415219.

38.Rezaian, Masoumeh, Ebrahimi, Amrullah, & Zargham, Mehtab. Treatment based on acceptance and commitment on catastrophizing and disabling pain in women with Cognitive and behavioral .science research.(2013), 4(2), 17-30

39.Cheong YC, Smotra G, Williams ACDC. Non-surgical interventions for the management of chronic pelvic pain. Cochrane Database Syst Rev. 2014, Issue 3. Art. 2023. No.: CD008797. DOI: 10.1002/14651858.CD008797.pub2.

40.Ratna Dewi Kumalasari et al. Hypnosis and Dyspareunia: A Meta Analysis . IJM ,2020, 05(04): 291-298

41.Rajaei, Fatemeh Al-Sadat, & Eshghi, Ronak.. The effect of cognitive-behavioral hypnotherapy on improving anxiety and sexual performance of patients with vaginismus. Clinical Psychology, (2016) 9(4), 55-69. doi: 10.22075/jcp.2018.11810.1164

42.Mojdeh Banaei, PhD and others, Sexual function among women with vaginismus: a biopsychosocial approach, J Sex Med, Volume 20, Issue 3, March 2023, Pages 298–312, https://doi.org/10.1093/jsxmed/qdac049

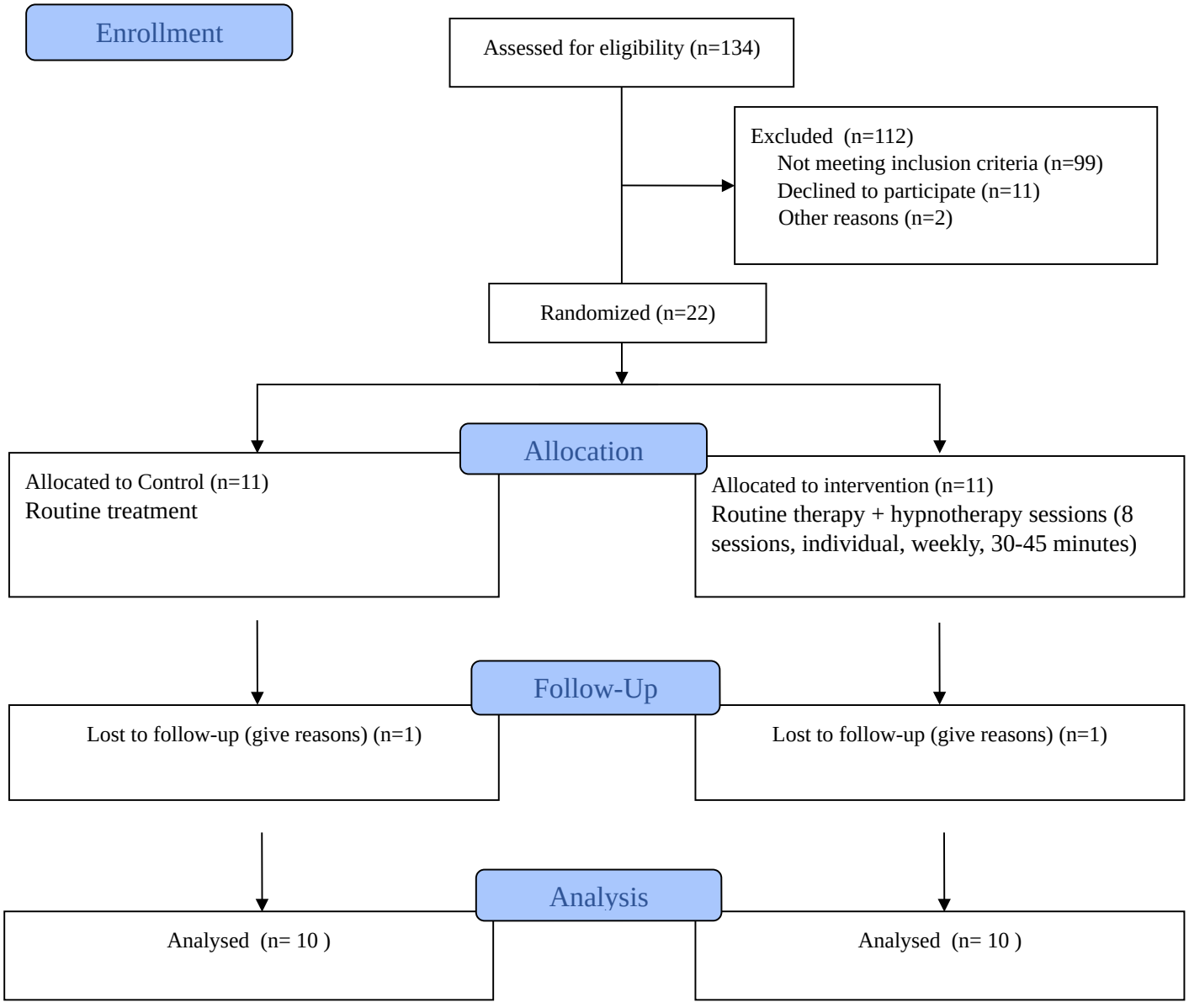


Diagram1 : CONSORT

[Translated from Persian by the Brieflands editorial office.]

2 Revision 1

1 comment · 27 Jun 2023

Referee 2 Reviewer

MAJOR REVISION 27 Jun 2023

Dear author
Thanks for addressing the comments. However, unfortunately, you did not address some of them! If you do not respond to all the comments, I will have to repeat them, and the acceptance process will be delayed. Moreover, the English in the manuscript is too weak, and it needs to be edited by an English expert before it is reviewed again.

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

The authors did not provide a point-by-point response to the reviewers' comments in this round.

3 Revision 2

1 comment · 12 Jul 2023

Referee 2 Reviewer

MAJOR REVISION 12 Jul 2023

There are a lot of English errors that make it too hard to understand the authors' meaning. They concern not only grammar and sentence structure but also the use of common terms in the medical literature. Although I made some corrections in the previous review, unfortunately, you did not consider them. I made some more corrections using Track Changes in this version, so please confirm them via "accept all changes". However, this manuscript needs thorough revision by a native English speaker with expertise in medical literature.

4

Revision 3

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

,Greetings and respect to the respected reviewers

- Regarding the Discussion in general: because both online studies and hypnotherapy studies on endometriosis were virtually unlimited in number, only the studies related to the topic of our study were included in the Discussion.

- The English translation was done again.

- Regarding blinding: last time we mistakenly did not mention it in the study, whereas blinding had been performed; for this reason, the correction was made and it has been included in the text.

Abstract results

The Dysmenorrhea severity score before the intervention in the intervention group was reported as 6.30±0.25. After the intervention, this score in this group was reported as 5.50±1.08 and at follow-up as 4.60±0.97, and the changes were reported as significant ($p<0.001$) (effect size = 0.93).

The Dyspareunia severity score was 4.50±3.14 before the intervention, 4.30±2.91 after the intervention, and 3.50±2.42 at follow-up; these changes were significant ($p=0.015$) (effect size = 0.41).

Despite a mean decrease of 0.2 at follow-up, the Pelvic pain score did not change significantly ($p=0.135$).

4 Revision 3

1 comment · 14 Aug 2023

Referee 2 Reviewer

MINOR REVISION 14 Aug 2023

Thanks for addressing the comments. Unfortunately, some corrections were not made carefully, so I had to add some more comments and change some sentences using Track Changes. Please confirm and reply to them.

5

Revision 4

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

The authors did not provide a point-by-point response to the reviewers' comments in this round.

5 Revision 4

0 comments

No public comments in this round.