



COMPLEMENTARY MEDICINE AND QUALITY OF LIFE IN GYNAECOLOGICAL PATIENTS WITH DYSMENORRHEA

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ABSTRACT:

Introduction: The normal physiological course of monthly menstruation is an important component of female health prevention and promotion in the childbearing age. Acupuncture, moxibustion and auriculotherapy are promising non-pharmaceutical alternative for dysmenorrhea management.

Purpose: to study and evaluate the capability of Chinese treatment methods - acupuncture, moxibustion and auriculotherapy suitable for pain syndrome management among patients with dysmenorrhea.

Material and Methods: *Material:* 44 women with primary dysmenorrhea, mean age of 26 years, divided into two groups. Complementary medicine methods were applied in the "Outpatient clinic for unconventional methods for favourable effect upon the individual health" - Sofia, and at the University Center for Eastern Medicine, Medical University "Prof. Dr Paraskev Stoyanov", within the two-year research period. *Methods:* document and content analysis; clinical, sociological and statistical methods.

Results: The research on quality of life in the experimental group establishes an increase in the overall self-assessment (44,18 points) and in the following domains: "Physical" by 19,409 points, "Psychological" by 12,591 points, "Social relationships" by 3,909 points and "Environment" by 7,50 points. The comparative characteristics of the data from the overall self-assessment of both groups and domains indicate an increase in the overall self-assessment by 66,52%, in the domain "Physical" by 50,06%, in the domain "Psychological" by 60,23%, in the domain "Social relationships" by 87,38% and in the domain "Environment" by 79,37%.

Conclusion: The implementation of complementary medicine in dysmenorrhea management should be interpreted as a modern approach to treatment and female health promotion and prevention to achieve optimal quality of life.

Keywords: dysmenorrhea, quality of life, complementary medicine, acupuncture,

INTRODUCTION:

It is established that every other girl suffers from a neuropsychiatric form of menstrual syndrome and every fifth girl - from a cephalgic or crisis form. Half of all menstruating women are affected by dysmenorrhea, which makes it the most common type of pain in gynaecological practice. Ten percent of these women experience severe symptoms, which impose their absence from work or school [1]. The manifestation of a relation between the severity of dysmenorrhea, social status and the nature of the working conditions determines that this problem has to be considered not only as medical but also as a serious social task. Multiple countries have special clinics for chronic pelvic pain, which pay special attention to dysmenorrhea [2].

A group of Chinese scientists has conducted a bibliometric analysis to visually present models and focus points in dysmenorrhea research on a large scale. Their purpose is to acquire valuable information in this area [3]. Data collected from different studies show fluctuations in the incidence of dysmenorrhea from 8 to 89.5% and even up to 96%. Moreover, the statistical reporting is only for those cases in which the physical activity of the woman is reduced, or a medical intervention is required, although it's spreading and the consequences it inflicts on the body and quality of life are underestimated [4, 5, 6, 7, 8].

Around 1/3 of the women suffering from dysmenorrhea are incapacitated for a duration of 1 to 5 days every month [9, 10]. This is the leading cause of recurring absences from school or work among adolescent girls and young women [11]. The relation between social status, the nature of the working conditions and the severity of dysmenorrhea is expressed [12]. Although it leads to restricted activity, most women suffer quietly and fail to report the symptoms to their health specialist [13].

In comparison with the general population, the incidence and intensity of dysmenorrhea are higher in female athletes and women who are engaged in physical labour. Heredity also plays a significant role - the mothers of 30% of the affected report suffering from dysmenorrhea as well.

Traditional Chinese medicine uses methods that are

classified in the modern world as complementary and constitute a paradigm of natural therapy based on a specific, unique, natural-philosophical theory [14, 15]. Its treatment methods are almost devoid of side effects and are considered safer (oral natural products and natural physical methods) because they rely on the active engagement of the self-healing mechanisms of the body. This suggests continuous searching, development and application of new medicinal substances or physical means for adequate management of the pain syndrome in gynaecological practice. Dysmenorrhea is an object of attention in the world scientific community.

The **purpose** of this research is to study and evaluate the capability of Chinese treatment methods - acupuncture, moxibustion and auriculotherapy suitable for pain syndrome management among patients with dysmenorrhea.

MATERIAL AND METHODS:

Material: 44 women with primary dysmenorrhea with persisting pain in the lower abdomen and the lumbosacral region during their menstrual cycle, at an age from 19 to 24 years, with pain unrelated to other diseases, no serious medical or psychological problems, normal gynaecological status, as well as signed informed consent. Forty-four of the invited accepted to participate in the research and were subsequently divided into two groups (experimental - 22 individuals and control - 22 individuals). The methods of complementary medicine (acupuncture, moxibustion, auriculotherapy) were performed in outpatient conditions in the "Outpatient clinic for unconventional methods for favourable effect upon the individual health" - Sofia (Treatment facility for outpatient help and hospice article 49, p. 9 from the Law for treatment facilities), and at the University Center for Eastern Medicine - Medical University "Prof. Dr. Paraskev Stoyanov" (UCEM-MU-Varna) within the two-year research period.

Methods: document and content analysis - research and analysis of the accessible scientific literature in the databases Scopus, Web of Science, PubMed, Science Direct, Google Scholar, etc., related to the problem considered in this research; Clinical methods, Sociological methods and Statistical methods.

RESULTS AND DISCUSSION:

The objective of this scientific research is to study 44 patients with pain syndrome due to dysmenorrhea, selected voluntarily and divided into two groups according to the experimental design (experimental: 22 individuals; control: 22 individuals). The research is approved by the Commission for Scientific Research Ethics at MU-Varna and was conducted within the period October 2022 until January 2024 (Protocol 119 of Commission for Scientific Research Ethics at MU-Varna from 21.07.2022, Researcher - Zoya Goranova). The therapeutic procedures were conducted in outpatient conditions in the "Outpatient clinic for unconventional methods for favourable effect upon the individual health" (Treatment facility for outpatient help and hospice article 49, p. 9 from the Law for treatment facilities) and at the University Center for Eastern Medicine - Medical University "Prof. Dr. Paraskev Stoyanov" (UCEM-MU-Varna) for a two-year long

research period. The experimental work took place in two stages.

First stage - preliminary: In this stage, all studied individuals received written information (document from the main researcher) on-site regarding the nature, purposes, organisation of the research, required examinations, expected benefits, and possible risks and inconveniences. With strict adherence to the rules of acupuncture, moxibustion and auriculotherapy, there are no risks but only benefits. There is no potential risk for the participants in this study.

Second stage - main: During this stage, the essential portion of the diagnostic-therapeutic algorithm within the framework of the treatment programme was conducted. The clinical data of the individuals who accepted to participate were collected by the accompanying documentation (outpatient document from an obstetrician-gynaecologist with dysmenorrhea as diagnosis). The participants in the study will receive a programme according to their syndrome, including the methods of Chinese medicine - acupuncture, moxibustion and auriculotherapy, according to the characteristics of their organism. To determine the syndrome, according to Chinese medicine, an expanded specialised anamnesis consisting of 10 questions was conducted with every patient. Traditional inspection of the tongue and palpation of the pulse were conducted, with which the syndrome will be determined, and an individual recipe for patient treatment will be made.

The experimental group (EG) underwent a treatment programme composed by the doctoral student over the course of 4 courses (5-7-10 acupuncture procedures) every day or every other day. The supporting course of 4 - 5 acupuncture procedures within 10 days before the alleged date of the next menstruation was conducted when necessary. A total of three consecutive periods were applied within 3 months according to the individual characteristics of every patient in this group. Acupuncture was combined with 2-3 auriculotherapy procedures (fixating of plant seeds or micro needles) within the supporting course and the menstruation. The experimental process is registered in an individual outpatient card (Application 15). The characteristics of the studied contingent (sex, age, employment, etc.) are included in the quality of life questionnaire. The socio-demographic characteristics of the respondents are presented in Table 1:

Table 1. Socio-demographic characteristics of the respondents (n=44).

Indicator	Value
Age	
Mean age	26 years of age
Minimum age	19 years of age
Maximum age	37 years of age
< 20 years of age	4/9,09 %
21-30 years of age	32/72,73 %
>30 years of age	8/18,18 %
Settlement	
Village	-
Town	9/20,45 %
City	35/79,55 %

Education	
Secondary education	12 / 27,27 %
Bachelor	15 / 34,09 %
Master	16 / 36,36 %
Educational scientific degree "Doctor"	1 / 2,27 %
Marital status	
Married	7/15,91 %
Cohabitation without marriage	34/77,27 %
Widow	1/2,27 %
Divorced	2/4,55 %
Occupation	
Studying	12/27,27 %
Working	32/72,73 %
Unemployed	-
Parity	
Given birth	2/4,55 %
Hasn't given birth	42/95,45 %

The mean age of the patients is 26 years, with the majority (72,73%) being in the 21-30 years of age period. A large part of the women participating in the research (79,55%) live in the city, 77,27% cohabit with their partners, 70,45% have higher education, 72,73% work, and almost all have not given birth (95,45%).

A change in the overall self-assessment and the domains is established by the research on quality of life in the EG after the application of the author's methodology according to the algorithm's design (Table 2-6):

The mean value of the overall self-assessment "quality of life" at the beginning of the treatment was 55,82, and the patients' value at the end of the treatment was 100,00. An increase of the mean values of the indicator by 44,18 units was established at the end of the treatment compared to the beginning among the studied 22 patients (Table 2).

Table 2. Overall self-assessment "Quality of life" before and after in the EG (n=22)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Overall self-assessment "Quality of life" before	55,82	22	11,603	2,474
	Overall self-assessment "Quality of life" after	100,00	22	5,612	1,196

$p=0,000 < \alpha=0,05$

The mean value of the domain "Physical" at the beginning was 11,45, and the patients' value at the end of the treatment was 30,86. An increase in the mean val-

ues in the patients was reported at the end of the treatment by 19,409 in comparison with the values from the beginning (Table 3).

Table 3. Domain "Physical" before and after in the EG (n=22)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Domain "Physical" before	11,45	22	5,771	1,230
	Domain "Physical" after	30,86	22	2,436	,519

$p=0,000 < \alpha=0,05$

The mean value of the domain "Psychological" upon arrival was 12,23, and at the end of the treatment was 24,82. An increase of the mean values by 12,591 was reported

among the discharged patients in comparison with their values upon arrival (Table 4).

Table 4. Domain "Psychological" before and after in the EG (n=22)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Domain "Psychological" before	12,23	22	4,011	,855
	Domain "Psychological" after	24,82	22	1,918	,409

$p=0,000 < \alpha=0,05$

The mean value of the domain "Social relationships" upon arrival was 9,09, and upon discharge was 13,00. An increase in the mean values by 3,909 was re-

ported upon discharge in comparison with the values upon arrival (Table 5).

Table 5. Domain “Social relationships” before and after in the EG (n=22)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Domain “Social relationships” before	9,09	22	2,562	,546
	Domain “Social relationships” after	13,00	22	1,447	,309

p=0,002 < α=0,05

The mean value in the domain “Environment” upon arrival was 24,00 and 31,50 upon discharge. An increase in the mean values by 7,50 was reported among the discharged in comparison with their values upon arrival (table 6).

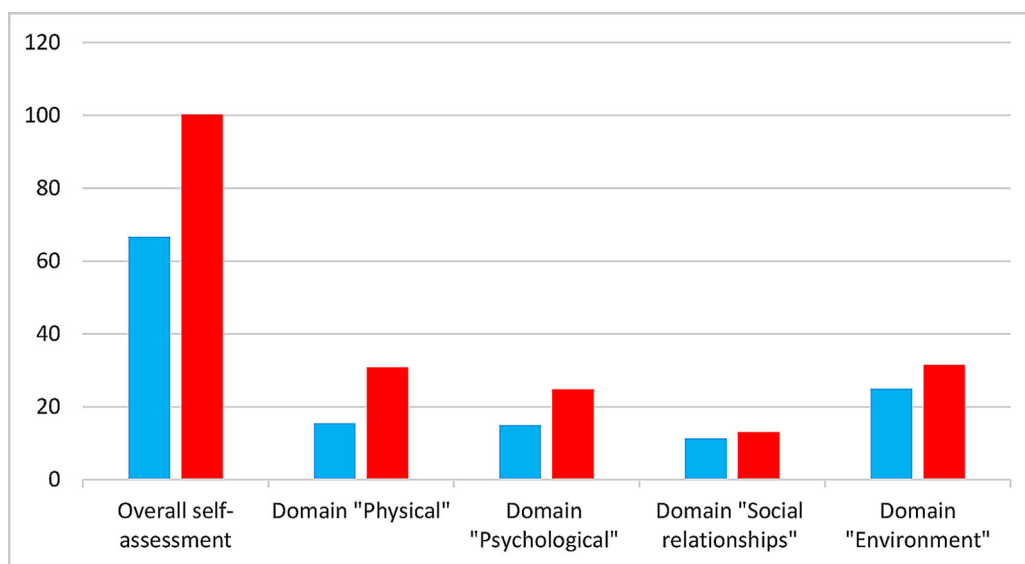
Table 6. Domain “Environment” before and after in the EG (n=22)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Domain “Environment” before	24,00	22	4,791	1,021
	Domain “Environment” after	31,50	22	2,858	,609

p=0,000 < α=0,05

The comparative characteristics of the data from the overall self-assessment and domains represent a change in the quality of life towards health improvement after the application of the complementary approach (G2) in comparison with the standard treatment (G1) (fig.1). After the conducted treatment, the overall self-assessment in G2 increases by 66,52% (33,54 points), in the domain “Physical” the dynamic is by 50,06% (15,41 points), in the domain “Psychological” by 60,23% (9,87 points), in the domain “Social relationships” by 87,38% (2 points) and in the domain “Environment” - by 79,37% (6,5 points) (fig. 1).

Fig. 1. Comparative characteristics of the changes in quality of life in Group 1 and Group 2.



The theoretical justification for dysmenorrhea, based on the principles of Chinese medicine and the analysis of four cases, provides sufficient evidence for the necessity of alternative methods in modern clinical practice, such as acupuncture, moxibustion, and auriculotherapy. Pain management and elimination of accompanying symptoms - before and during menstruation are possible by using adequate physical treatment according to the individual features of the woman’s organism. This is enough

reason to claim that by applying the methods of Chinese medicine, pain management in gynaecological practice and quality of life improvement are possible.

CONCLUSION

The implementation of complementary medicine in dysmenorrhea management should be interpreted as a modern approach to treatment and female health promotion and prevention to achieve optimal quality of life.

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