

Effect of Emotional Freedom Techniques on Psychological Distress and Somatic Symptoms among Students with Primary Dysmenorrhea

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ABSTRACT

Introduction: God has given menstruation as a special gift for every woman as a process of reproduction. India consider menstruation as a natural method for the preparation of motherhood and a blessing of God towards womanhood. Menstruation and related body changes can negatively affect all aspects of health, such as physical, mental and social. The bodily and emotional symptoms during menstruation can affect the overall activity of young girls. Emotional Freedom Techniques is a new intervention method in energy psychology that has an excellent positive effect on psychological and physiological symptoms and life quality. It has the ability to reduce the intensity of multiple symptoms within a short period of time. The main objective was to investigate the effect of Emotional Freedom Techniques on psychological distress and somatic symptoms among students with primary dysmenorrhea.

Materials and methods: A pre-experimental one group pretest-posttest study was conducted among students with primary dysmenorrhea in selected nursing colleges, Ernakulam. A sample of 70 students who met the inclusion and exclusion criteria were included using the

purposive sampling technique. The data were collected using a demographic proforma, Self-Structured Psychological Distress Rating Scale and Self-Structured Somatic Symptoms Rating Scale.

Results: The result revealing that Emotional Freedom Techniques was statistically effective in reducing psychological distress ($p=0.001$) and somatic symptoms ($p=0.001$) among students with primary dysmenorrhea which were significant at 0.05 level.

Conclusion: The study concluded that Emotional Freedom Techniques was effective in reducing psychological distress and somatic symptoms among students with primary dysmenorrhea.

Keywords: Emotional Freedom Techniques, primary dysmenorrhea, psychological distress, somatic symptoms.

INTRODUCTION

God has given menstruation as a special gift for every woman as a process of reproduction. India consider menstruation as a natural method for the preparation of motherhood and a blessing of God towards womanhood.¹ World Health Organization pointed out the importance of recognizing menstrual health worldwide and reported that menstruation, as well as menstrual pain,

is an important health issue that affects the physical, psychological and social aspects of young females.² Primary dysmenorrhea is lower abdominal pain that begins six to twelve months after the first onset of menstruation without any pelvic pathology.³ Worldwide prevalence of primary dysmenorrhea is about 45 to 95%.⁴ In India, reported a prevalence of 45 to 65% of primary dysmenorrhea.⁵ A prevalence of about 72 to 78% of dysmenorrhea is reported in Kerala.⁶

The cramping pain during menstruation is known as dysmenorrhea. It can be categorized as primary and secondary dysmenorrhea. Primary dysmenorrhea is the spasmodic pain a person experiences in the lower part of the abdomen before or during menstruation during a normal ovulatory cycle and is not related to any pathology of the pelvis. It is a common problem experienced by every young woman in the reproductive age group. The primary dysmenorrhea and related psychosomatic symptoms often result in frequent absenteeism and poor performance in academic activities among students.⁴ It is often seen among young females, and they show a variety of psychological and somatic disturbances. They bear this painful issue silently, leading to emotional disturbances, which in turn affect their day-to-day activities.⁷

Emotional Freedom Techniques is a simple method to relieve negative emotions and physical symptoms. It works on the meridians of the body, which are the energy channels in human bodies. Gentle tapping on specific points in head, face, body and hands with the fingertips helps to remove the blockade in the body's energy system. Tapping on the head activates the brain's amygdala, which controls emotions in our body. Touching on the body surface also promotes the body-mind connection, which in turn helps in minimizing negative emotions. Tapping resolves the symptoms and disturbances within minutes.⁸

This approach is effective in physical issues such as pain and somatic symptoms. It has

the ability to reduce the intensity of multiple symptoms within a short period of time. It was reported that EFT is a safe and effective therapy for both mental and physical distress.⁹

An institutional cross-sectional study was carried out by Gindaba et al. (2025) to evaluate primary dysmenorrhea and the related factors among female high school students in Nekemte town, East Wallaga Zone, Western Oromia, Ethiopia. A sample of 534 high school students was selected using multistage stratified sampling technique. The tool used for collecting the data was a self-structured questionnaire containing socio-demographic details and menstrual characteristics. The study revealed a 68.4% of primary dysmenorrhea.¹⁰

A cross-sectional descriptive study was carried out by Katib et al. (2024) to identify the prevalence of primary dysmenorrhea and explore its effect on the quality of life among young female students at Umm Al-Qura University in Saudi Arabia. Convenience sampling technique was used to select a sample of 384 students. A structured questionnaire containing demographic variable, menstrual variable and dysmenorrhea features and the Short Form Health Survey (SF-12) was used to collect the data. The study revealed a prevalence of 83.7% of primary dysmenorrhea. The students reported symptoms such as fatigue, headache, nausea, vomiting diarrhea, dizziness, sleep disturbances, irritability and tension during menstruation. Among them, fatigue was the symptom most frequently reported (80.6%). The findings showed that primary dysmenorrhea had an impact on physical ability and daily activities. The study suggested some effective intervention to reduce the symptoms in order to improve the quality of life (p value <0.05).¹¹ The intensive review and background of the study give a basis for the reason to conduct the present study.

Objectives of the study

1. To assess the psychological distress among students with primary dysmenorrhea at pretest and posttest level.
2. To assess the somatic symptoms among students with primary dysmenorrhea at pretest and posttest level.
3. To evaluate the effect of Emotional Freedom Techniques on psychological distress and somatic symptoms among students with primary dysmenorrhea.
4. To find the correlation between psychological distress and somatic symptoms among students with primary dysmenorrhea.
5. To find the association between psychological distress and somatic symptoms with selected variables among students with primary dysmenorrhea.

Hypotheses of the study

The following hypotheses will be tested at 0.05 level of significance:

H₁: There is significant difference in pretest and posttest scores of psychological distress and somatic symptoms in students with primary dysmenorrhea.

H₂: There is significant correlation between psychological distress and somatic symptoms among students with primary dysmenorrhea.

H₃: There is significant association between pretest score of psychological distress and somatic symptoms with selected variables among students with primary dysmenorrhea.

MATERIALS & METHODS

- a) **Research approach:** Quantitative research
- b) **Research design:** Pre experimental one group pretest-posttest design
- c) **Study setting:** Selected nursing colleges in Ernakulam
- d) **Study population:** Students with primary dysmenorrhea.
- e) **Sample size:** 70 first year nursing students with primary dysmenorrhea.

f) **Sampling method:** Non probability purposive sampling technique.

g) **Intervention:** Emotional Freedom Techniques

h) **Duration of intervention:** Two sessions with 20 minutes duration.

Inclusion criteria

Students who were

- having regular menstruation for at least two years.
- having menstrual pain within 24 hours after onset of menses.
- having psychological distress and somatic symptoms.
- willing to participate in the study.
- first year B.Sc. Nursing students aged 18 to 21 years with pain score of 4 to 10 during menstruation.

Exclusion criteria

Students who were

- undergoing any treatment for gynecological disorders.
- known cases of neurological or psychological disorders.
- taking pain medications or any other therapies.

Outcome measures

- Tool 1: Demographic proforma
- Tool 2: Self-Structured Psychological Distress Rating Scale
- Tool 3: Self-Structured Somatic Symptoms Rating Scale

Procedure of data collection

- Obtained approval from Scientific Review Committee and Institutional Ethics Committee
- Obtained formal written permission from the concerned authority (Samaritan College of Nursing and Lourdes College of Nursing, Ernakulam)
- Obtained informed consent after explaining the aim of the study and screened 130 participants for identifying primary dysmenorrhea, using Tool 1: Demographic proforma.

- Identified 119 participants with primary dysmenorrhea.
- Prepared a list of identified participants in ascending order based on the first day of the menstrual cycle onset.
- Selected the first 70 samples from the prepared list of identified participants through non-probability purposive sampling technique based on inclusion and exclusion criteria.
- Obtained the signed participant information sheet and the pretest was done using Tool 2: Self-Structured Psychological Distress Rating Scale and Tool 3: Self-Structured Somatic Symptoms Rating Scale within the first 24 hours of onset of menses.
- Immediately after pretest, the investigator administered two sessions of Emotional Freedom Techniques tapping for 20 minutes to every individual sample.
- Posttest was done with tool 2 and tool 3 after two hours of intervention.

Intervention

Interventional program adopted for the current study was Emotional Freedom Techniques. It is a body-mind self-help tapping method. It is beneficial in reducing the psychological and somatic symptoms arising from menstruation. Two sessions of EFT were administered for a duration of 20 minutes. It uses the techniques of tapping over several locations on the body and repetition of a sentence focusing on the menstrual issue.¹²

Steps of EFT tapping

One session of EFT tapping contains 4 steps

Step 1: Setup

- Choose the menstrual issues such as psychological distress and somatic symptoms and develop a reminder phrase (“menstrual distress”).
- Rate the issue in 1 to 10 scale. (Rated menstrual distress as 7)
- Create a setup statement (“Even though I have menstrual distress, I deeply and completely accept myself”).

- Tap with finder tips on the karate chop point/side of the hand point while repeating the setup statement three times.

Step 2: Sequence

- Tap 7 to 10 times over the points beginning from the top of the head, then through eyebrow, side of eye, under eye, under nose, chin, collarbone, under arm, side of thumb, index finger, middle finger and little finger while saying the reminder phrase (menstrual distress) loudly.

Step 3: Gamut procedure

- Tap over the gamut point while performing the following actions at the same time:
 1. Close eyes
 2. Open eyes
 3. Look down hard right (keep head straight)
 4. Look down hard left
 5. Roll your eyes clockwise (around in your skull as far as they can go)
 6. Roll your eyes anti-clockwise
 7. Hum a tune (a little bit of "Happy Birthday" will do nicely)
 8. Count 1-2-3-4-5 quickly
 9. Hum again

Step 4: Sequence

- Tap 7 to 10 times over the points beginning from the top of the head, then through eyebrow, side of eye, under eye, under nose, chin, collarbone, under arm, side of thumb, index finger, middle finger and little finger while saying the reminder phrase (menstrual distress) loudly.
- Take a deep breath and check-in and measure the intensity of issue by Numerical Rating Scale.
- Re-focus on the issue and repeat second session of EFT tapping.^{8,12}

Statistical Analysis

The data analyzed by employing both descriptive and inferential statistics in accordance with the study's objectives and hypotheses. The data analyzed using SPSS version 20. Paired t-test was employed to

evaluate the effect of Emotional Freedom Techniques on psychological distress and somatic symptoms among students with primary dysmenorrhea.

RESULT

Description of the sample characteristics

Table 1: Frequency and percentage distribution of sample according to age, residence and religion (n=70)

Variables	Category	Frequency(f)	Percentage (%)
Age	18-19 years	67	95.71
	20-21 years	3	4.29
Residence	Rural	57	81.43
	Urban	13	18.57
Religion	Christian	49	70.00
	Hindu	16	22.86
	Muslim	5	7.14

Table 1 describes the frequency and percentage distribution of sample according to age, residence and religion. Among the 70 sample, majority 95.7% belongs to the age group of 18-19 years and 4.3% belongs to 20-21 years. Regarding residence, 81.4%

of sample reside in rural areas and 18.6% of sample in urban areas. Out of the 70 sample, 70% belongs to the Christian category, 22.9% belongs the Hindu category and 7.1% to the Muslim category.

n= (70)

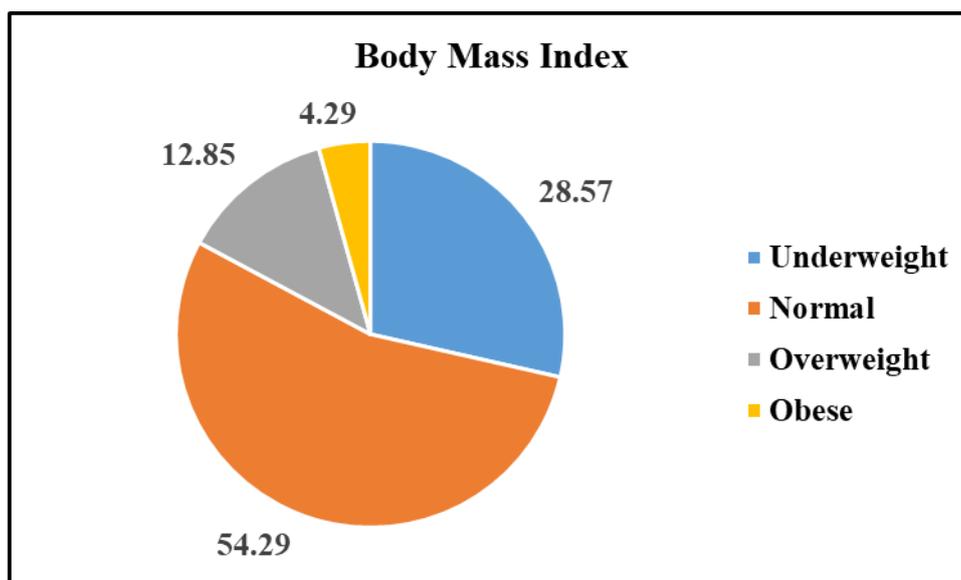


Figure 1: Body Mass Index

Figure 1 presents the BMI of sample. Out of the 70 sample, 54.3% sample have a normal BMI, 28.6% sample are underweight, 12.9%

sample are overweight and 4.2% sample are obese.

Table 2: Frequency and percentage distribution of sample according to menstrual characteristics (n=70)

Variables	Category	Frequency(f)	Percentage (%)
Age at menarche	<12 years	15	21.43
	≥12 years	55	78.57
Duration of Menstruation	<7 days	48	68.57
	≥7 days	22	31.43
Frequency of menstrual cycle	<21 days	1	1.43
	21-35 days	65	92.86

	>35 day	4	5.71
Duration of menstrual pain	<6 hours	29	41.43
	6-12 hours	27	38.57
	13-24 hours	9	12.86
	>24 hours	5	7.14
Family history of dysmenorrhea	Yes	51	72.86
	No	19	27.14
Academic absenteeism during menstruation	Yes	21	30.00
	No	49	70.00
Poor concentration during menstruation	Yes	60	85.71
	No	10	14.29
Pain affects the performance of academic activities during menstruation	Yes	38	54.29
	No	32	45.71

Table 2 presents the frequency and percentage distribution of sample according to menstrual characteristics. With regard to age at menarche, 78.6% sample achieved menarche after or at 12 years of age and 21.4% sample attained menarche before 12 years of age. Regarding duration of menstruation, 68.6% of sample belongs to the category of <7 days and 31.4% to the category of ≥ 7 days. Among the 70 sample, the majority 92.9% have a 21 to 35 days of menstrual cycle. With regard to duration of menstrual pain, 41.4% have less than 6 hours. Out of the 70 sample, 72.9% have family history of dysmenorrhea. Regarding

academic absenteeism during menstruation, 70% do not have academic absenteeism during menstruation. Out of the 70 sample, 85.7% have poor concentration during menstruation. Considering pain affects the performance of academic activities during menstruation, 54.3% of sample reported that pain affects the performance of academic activities during menstruation.

Objective 1: To assess the psychological distress among students with primary dysmenorrhea at pretest and posttest level.

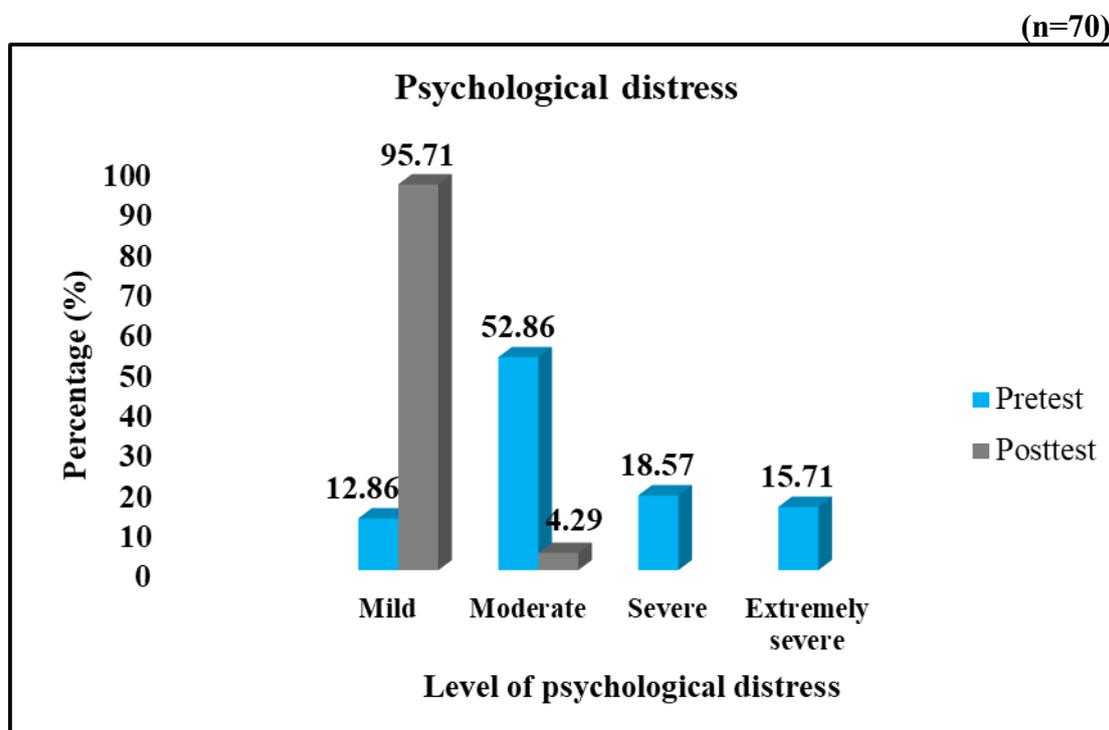


Figure 2: Percentage distribution of sample according to levels of psychological distress at pretest posttest levels

Figure 2 depicts the percentage distribution of sample according to levels of psychological distress at pretest and posttest levels. Among the 70 sample, 52.9% have moderate psychological distress, 18.6% have severe psychological distress, 15.7% have extremely severe psychological distress and 12.8% have mild psychological distress at pretest level. With regard to

posttest level of psychological distress, 95.7% have mild psychological distress and 4.3% have moderate psychological distress.

Objective 2: To assess the somatic symptoms among students with primary dysmenorrhea at pretest and posttest level.

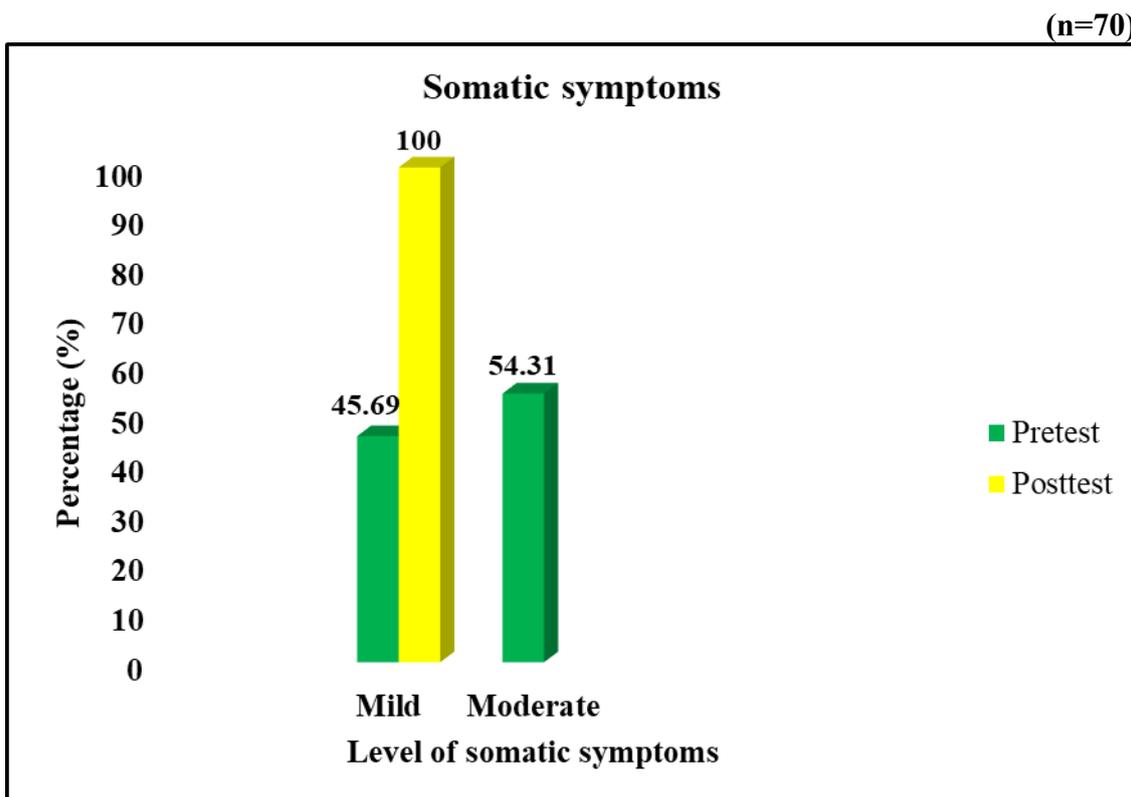


Figure 3: Percentage distribution of sample according to levels of somatic symptoms at pretest and posttest levels

Figure 3 presents the percentage distribution of sample according to levels of somatic symptoms at pretest and posttest levels. Among the 70 sample, 54.3% have moderate somatic symptoms and 45.7% have mild somatic symptoms at pretest level. With regard to posttest level of

somatic symptoms, 100% have mild somatic symptoms.

Objective 3: To evaluate the effect of emotional freedom techniques on psychological distress and somatic symptoms among students with primary dysmenorrhea.

Table 2: Effect of Emotional Freedom Techniques on psychological distress among students with primary dysmenorrhea (n=70)

Psychological distress	Mean	SD	Mean difference	df	t value	p value
Pretest	18.80	8.54	14.66	69	16.41	0.001**
Posttest	4.14	3.38				

**significant at 0.01 level

Table 2 reveals the effect of Emotional Freedom Techniques on psychological distress among students with primary dysmenorrhea. The mean psychological distress score decreased from 18.80 ± 8.54 in the pretest to 4.14 ± 3.38 in the posttest. Paired t test is employed to compute the mean difference (14.66) between pretest and

posttest psychological distress scores. The obtained t value (16.41, $p=0.001$) is statistically significant at 0.05 level. Hence the null hypothesis (H_{01}) is rejected which infers that Emotional Freedom Techniques has significant effect in reducing psychological distress among students with primary dysmenorrhea.

Table 3: Effect of Emotional Freedom Techniques on somatic symptoms among students with primary dysmenorrhea (n=70)

Somatic symptoms	Mean	SD	Mean difference	df	t value	p value
Pretest	15.33	6.01	10.19	69	16.74	0.001**
Posttest	5.14	3.18				

**significant at 0.01 level

Table 3 describes the effect of Emotional Freedom Techniques on somatic symptoms among students with primary dysmenorrhea. The mean somatic symptoms score decreased from 15.33 ± 6.01 in the pretest to 5.14 ± 3.18 in the posttest. Paired t test is employed to compute the mean difference (10.19) between pretest and posttest somatic symptoms scores. The obtained t value (16.74 $p=0.001$) is statistically significant at

0.05 level. Hence the null hypothesis (H_{01}) is rejected which infers that Emotional Freedom Techniques has significant effect in reducing somatic symptoms among students with primary dysmenorrhea.

Objective 4: To find the correlation between psychological distress and somatic symptoms among students with primary dysmenorrhea.

Table 4: Correlation between psychological distress and somatic symptoms among students with primary dysmenorrhea (n=70)

Variables	Mean	SD	Pearson Coefficient r value	p value
Psychological distress	18.80	8.54	0.550	0.001**
Somatic symptoms	15.33	6.01		

**significant at 0.01 level

Table 4 depicts the correlation between psychological distress and somatic symptoms among students with primary dysmenorrhea. The Pearson Coefficient r value 0.550 ($p=0.001$) is statistically significant at 0.05 level. Hence the null hypothesis (H_{02}) is rejected which infers a positive correlation between psychological

distress and somatic symptoms among students with primary dysmenorrhea.

Objective 5: To find the association between psychological distress and somatic symptoms with selected variables among students with primary dysmenorrhea.

Table 5: Association of psychological distress with selected demographic variables (n=70)

Variable	Psychological distress				Fisher's exact value	p value
	Mild (f)	Moderate (f)	Severe (f)	Extremely severe(f)		
Academic absenteeism during menstruation					9.14	0.03*
Yes	1	8	5	7		
No	8	29	8	4		

*significant at 0.05 level

Table 5 shows the association between psychological distress with academic absenteeism during menstruation. The obtained Fisher's exact value, academic absenteeism during menstruation (9.14,

$p=0.03$) is statistically significant at 0.05 level. Hence the null hypothesis (H_{03}) is rejected which infers that psychological distress has significant association with academic absenteeism during menstruation

Table 6: Association of somatic symptoms with selected demographic variables (n=70)

Variables	Somatic symptoms		Fisher's exact value	p value
	Mild (f)	Moderate (f)		
Duration of menstruation			4.54	0.03*
<7days	26	22		
≥7days	6	16		
Academic absenteeism during menstruation			3.65	0.05*
Yes	6	15		
No	26	23		

*significant at 0.05 level

Table 6 explains the association between somatic symptoms with duration of menstruation and academic absenteeism during menstruation. The obtained Fisher's exact value, duration of menstruation (4.54, $p=0.03$) and academic absenteeism during menstruation (3.65, $p=0.05$) is significant at 0.05 level. Hence the null hypothesis (H_{03}) is rejected which infers that somatic symptoms have significant association with duration of menstruation and academic absenteeism during menstruation.

DISCUSSION

The study revealed a statistically significant difference in the mean pretest and posttest scores of psychological distress and somatic symptoms among students with primary dysmenorrhea. The mean posttest psychological distress scores (4.14 ± 3.38) were lower than the mean pretest psychological distress score (18.80 ± 8.54). The mean posttest somatic symptoms scores (5.14 ± 3.18) were lower than the mean pretest somatic symptoms score (15.33 ± 6.01). The present study results were supported by quasi-experimental research conducted by Desoky et al. (2023) to investigate the effect of Emotional Freedom Techniques for reducing primary dysmenorrhea intensity among female students in Egypt. The results revealed that there was difference in pretest pain mean score (9.2 ± 1.3) and posttest pain mean score

(7.8 ± 1.4) ($p=0.0001$). The finding was highly significant at $p<0.05$ level.¹³

The study findings were supported with pre-experimental research carried out by Hermawan and Kurniawati (2013) to examine the effect of Emotional Freedom Techniques to reduce dysmenorrhea intensity among students in Indonesia. A quota sampling technique was utilized to select twenty nursing students. An interview questionnaire containing the demographic and menstrual variable and Numerical Rating Scale was employed to gather the data. The findings revealed that the obtained p value 0.000 was significant at <0.05 level. Thus, the Emotional Freedom Techniques was effective in reducing dysmenorrhea intensity among students.¹⁴

The current study results were supported by a preliminary study carried out by Gulla P and Khan N (2019) to explore the association between primary dysmenorrhea and anxiety among young females in Hamdard. A sample of 25 young females aged between 18 and 25 years was selected using a convenience sampling method. The Hamilton Anxiety Questionnaire and Women's Health Questionnaire were employed to gather the data. The study reported a moderate positive correlation between physical symptoms and anxiety ($r=0.687$, $p=0.00$) among females with primary dysmenorrhea ($p=0.05$).¹⁵

The current study results were consistent with another correlational study conducted

by Kanwal et al. (2017) to explore the relation of primary dysmenorrhea with depression among students in Gujranwala, Pakistan. A sample of 99 female students were selected with convenience sampling technique. The numeric pain rating scale, daily record of severity of problem and Patient Health Questionnaire (PHQ-9) were employed to gather the data. The result indicated that menstrual pain was positively correlated with depression ($r=0.30$, p value= 0.00).¹⁶

The results showed that there was a significant association between psychological distress with academic absenteeism during menstruation (9.14 , p value= 0.03) significant at 0.05 level. The present study findings also showed that the somatic symptoms had significant association with duration of menstruation (4.54 , $p=0.03$) and academic absenteeism during menstruation (3.65 , p value= 0.05), significant at 0.05 level.

The current study results were supported by the finding of the quasi-experimental study conducted by Desoky et al. (2023) to investigate the effect of Emotional Freedom Techniques for reducing primary dysmenorrhea intensity among female students in Egypt. A convenience sampling technique was utilized to select a sample of 161 nursing students. A structured interview questionnaire consisting of the demographic and menstrual variables and Visual Analogue Scale was employed to gather the data. The findings revealed that menstrual pain had no association with age ($\chi^2=7.8$, $p=0.104$), BMI ($\chi^2=5.6$, $p=0.22$), frequency of menstrual cycle ($\chi^2=2.8$, $p=0.6$) and duration of menstruation ($\chi^2=3.2$, $p=0.19$). In contrast, the results revealed that intensity of pain was associated with residence ($\chi^2=8.5$, $p=0.014$) and age at menarche ($\chi^2=7.3$, $p=0.027$) which was not consistent with the present study findings ($p<0.05$).¹³

The present study results were supported by a cross-sectional study conducted by Hashim et al. (2020) to explore the prevalence and factors related to primary

dysmenorrhea among young female students in Saudi Arabia. A total of 376 students were selected with non-probability consecutive sampling technique. A structured questionnaire consisting demographic and menstrual variables and SF 36 scale was employed to gather the data. The study reported that dysmenorrhea symptoms had statistically associated with academic absenteeism ($\chi^2=61.25$, p value <0.0001) ($p<0.05$).¹⁷

Recommendations

The current study result can be used for future research studies to bring clinical evidence and strengthen the finding of the study.

- A mixed method research approach can be adopted to study the in-depth efficacy of Emotional Freedom Techniques among students with primary dysmenorrhea.
- A comparative study could be conducted to investigate the efficacy of Emotional Freedom Techniques with other therapies.
- A study could be conducted to evaluate the efficacy of Emotional Freedom Techniques on reducing pain and other symptoms among patients undergoing chemotherapy.
- Related studies can be conducted among different sample such as young female staff nurses and young IT professionals.
- Another study can be conducted to evaluate the efficacy of Emotional Freedom Techniques on stress, anxiety and depression among students with dysmenorrhea.

Limitations

The present study was limited to the following:

- The study lacks long term follow up of the effect of the intervention.
- Generalization of the study finding is limited due to small sample size.
- Posttest was conducted two hours after therapy on the same day due to the possible effect of confounding variables

such as food, water and exercise on menstruation.

CONCLUSION

The present study evaluated the effect of Emotional Freedom Techniques on psychological distress and somatic symptoms among students with primary dysmenorrhea. The mean psychological distress and somatic symptoms scores at posttest were lower than the mean psychological and somatic symptoms scores at pretest level. Hence the Emotional Freedom technique was found effective in reducing psychological distress and somatic symptoms among students with primary dysmenorrhea. The study also reported a high prevalence of primary dysmenorrhea. The results showed a positive correlation between psychological distress and somatic symptoms among students with primary dysmenorrhea. The current study reported that psychological distress was associated with academic absenteeism during menstruation. The study result also revealed the association between somatic symptoms with academic absenteeism and duration of menstruation.

Declaration by Authors

Ethical Approval: Approved. Ethical clearance for the study was obtained from the Scientific Review Committee (LCN/08/063/2024) and the Institutional Ethics Committee (LH/EC/2024-27).

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Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. Thakur et al. knowledge, practice, and restrictions related to menstruation among young women from low socioeconomic community in Mumbai, India, *Frontiers in Public Health*. July 2014;2(72). Available from: http://www.frontiersin.org/Public_Health/editorialboard
2. World Health Organization. WHO statement on menstrual health and rights. [cited 2023 Jun 5]. Available from: <https://www.who.int/news/item/22-06-2022-who-statementon-menstrual-health-and-rights>
3. Berkly KJ. Primary Dysmenorrhea: An Urgent Mandate. *IASP Pain clinical updates*. 2013;21(3). Available from: <https://www.iranian-pain-society.org/en/wpcontent/uploads/sites/2/2015/02/pdf-file-6.pdf>
4. Itani et al. Primary Dysmenorrhea: Pathophysiology, Diagnosis and Treatment Updates. *Korean J Fam Med*. 2022; 43:101-108. Available from: <https://doi.org/10.4082/kjfm.21.0103>
5. Kural M, Noor N N, Pandit D, Joshi T, Patil A. Menstrual characteristics and prevalence of dysmenorrhea in college going girls. *JFMPC*. 2015;4(3). Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC4535108/>
6. Sudarshan et al. Dysmenorrhea – Its Prevalence, Determinants and Impact: A Cross-Sectional Study from a Medical College in North Kerala. *Annals of community Health*. 2020; 8(1). Available from: <https://www.researchgate.net/publication/340174279DysmenorrheaItsPrevalenceDeterminantsandImpactACrossSectionalStudyfromaMedicalCollegeinNorthKerala>
7. Agarwal A K, Agarwal A. A Study of Dysmenorrhea during Menstruation in Adolescent girls. *Indian Journal of Commtty Medicine*. 2010; 35(1):159-164. Available from: <http://dx.doi.org/10.4103/0970-0218.62586>
8. Pandey S Emotional Freedom Technique manual, tap-easy.com.
9. Church D. Clinical EFT as an Evidence-Based Practice for the Treatment of Psychological and Physiological Conditions. *Psychology*.2013;4:645-654. Available from: [doi: 10.4236/psych.2013.48092](https://doi.org/10.4236/psych.2013.48092).
10. Gindaba BG, Gudeta TA, Sebu LD, Gindaba EZ and Abdisa MT. Primary dysmenorrhea and its associated factors among female high school students in Nekemte town, East Wallaga Zone, Western Oromia, Ethiopia: a cross-sectional study. *Front. Reprod. Health*, January 2025; 6: 1451551. Available from: <https://doi.org/10.3389/frph.2024.1451551>

11. Katib Y, Almeahmadi M, Alhajaji F, Alqorashi S, Almajnooni F, Alshinawi MA, Marghalani RA. Prevalence of Primary Dysmenorrhea and Its Effect on the Quality of Life Among Female Students at Umm Al-Qura University. *Cureus*. 2024 Oct 22;16(10):e72136. doi: 10.7759/cureus.72136.
12. Hafter B M, Barbee J, Miller C Z, Shaner L: A Comprehensive Introductory Guide to EFT (Emotional Freedom Techniques) Update Version 3.3.1 2023.
13. Desoky M M A, Hussein A A, Ibrahim A A, Metwally H M S. Emotional Freedom Technique for Reducing Primary Dysmenorrhea Intensity among Female Students. *ASNJ*. 2023; 11(37):33-42. Available from: <https://asnj.journals.ekb.eg/article301276.html>
14. Hermawan G, Kurniawati T. Effect of Emotional Freedom Technique therapy (EFT) on the Intensity of Dysmenorrhea in VIII Semester Students at STIKES 'Aisyiyah Yogyakarta. 2013. Available from: <http://lib.unisayogya.ac.id/>
15. Gulla P and Khan N. Anxiety in Dysmenorrhea: A Pilot Study. *IJSR*. 2019;8(1). Available from: [https://www.worldwidejournals.com/international-journal-of-scientific-research-\(IJSR\)/article/anxiety-in-dysmenorrhea-a-pilot-study/MTc3ODQ=?is=1](https://www.worldwidejournals.com/international-journal-of-scientific-research-(IJSR)/article/anxiety-in-dysmenorrhea-a-pilot-study/MTc3ODQ=?is=1)
16. Kanwal R et al. Association between Primary Dysmenorrhea and Depression level among students. *T Rehabil J*. 2017;01(02):31-34. Available from: <https://www.researchgate.net/publication/374905827associationbetweenprimarydysmenorrheaanddepressionlevelamongstudents>
17. Hashim R T et al. Prevalence of primary dysmenorrhea and its effect on the quality of life among female medical students at King Saud University, Riyadh, Saudi Arabia. *SMJ*. 2020;41(3). Available from: <https://doi.org/10.15537/smj.2020.3.24988>

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