Short Communication

Efficacy of certain yogic and naturopathic procedures in premature ejaculation: A pilot study

Prasad Mamidi, Kshama Gupta

Ajeevan Swasthya Samvardhan Ayurveda Mahavidyalay, Arogyadham, Deendayal Research Institute, Chitrakoot, Madhya Pradesh, India

Address for correspondence: Dr. Prasad Mamidi, Arogyadham, Deendayal Research Institute, Chitrakoot, Satna District, Madhya Pradesh, India. E-mail: drprasadmamidi@gmail.com

ABSTRACT

Context: Premature ejaculation (PE) is the most common sexual disorder of young males. Even though there are number of treatment options available for PE, patient's satisfaction and drug side effects remain to be a problem. Non-pharmacological treatment options like *Yoga* and *Naturopathy* have been implicated in sexual fulfillment, pleasure and efficacy of some of these approaches has been established in previous studies.

Aim: To assess the efficacy of certain *yogic* and *naturopathic* procedures in the management of PE.

Materials and Methods: A total of 12 patients with PE satisfying the DSM IV TR diagnostic criteria were selected and allotted into two groups, *Yoga* group and *Naturopathic* group by following the randomization method. In the *Yoga* group, various *asanas, mudra, bandha* and *pranayama* were practiced 1 hour daily for 21 days. In the *Naturopathy* group, lower abdomen massage and steam bath, hip bath and *lingasnana*, mud pack on lower abdomen, and acupressure were done 1 hour daily for 21 days. Criteria of assessment were based on the scoring of *Premature Ejaculation Severity Index* (PESI). Statistical analysis was done by using paired and unpaired "*t*" tests.

Results: In the *Yoga* group ($n = 6$), 7.3% relief was observed ($P < 0.01$) and in the *Naturopathy* group ($n = 6$), 2.4% of relief was observed ($P > 0.05$) on the total score of PESI. There was no significant difference ($P > 0.05$) found in between the two groups.

Conclusion: Both *Yoga* and *Naturopathic* procedures didn't provide relief (<25%) on total score of PESI.

Key words: Naturopathy; premature ejaculation; premature ejaculation severity index; yoga.

INTRODUCTION

Premature ejaculation (PE) is a common sexual complaint of men and it is an important source of distress to the man and his partner.[1] PE is characterized by persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes it.[2] About 10% and 1% of male patients attending psychiatry and medical out-patient departments, respectively, seek consultation for psycho-sexual dysfunctions.[3] Prevalence rates of 20-30% have been reported.[4]

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Even though there are number of treatment options available for PE, patient's satisfaction and drug side effects remain to be a problem. New treatments are therefore desirable. Non pharmacological treatment options like *Yoga* and *Naturopathy* have been implicated in sexual fulfillment and pleasure and efficacy of some of these approaches has been established in empirical studies. More recently, *Yoga* has been found effective for improving ejaculatory control among men with PE.[5] Based on these facts, the present study was planned to evaluate the efficacy of certain *Yogic* and *Naturopathic* procedures in the management of PE.

Aims and objectives

1. To evaluate the efficacy of certain *Yogic and Naturopathic* procedures individually in the management of PE.
2. To compare the efficacy between Yogic and Naturopathic procedures in the management of PE.

MATERIALS AND METHODS

Participants

All the patients fulfilling the inclusion criteria were selected irrespective of caste, religion, and economic status with their written consent.

Sample size

A total of 12 patients were selected and allotted them into two groups, i.e., the Yoga group and the Naturopathy group, with 6 patients in each group.

Age range

Patients belonging to the age group between 20 and 60 years were selected.

Source of the patients

Patients were selected from the OPD of MPIYNER (Maharshi Patanjali Institute of Yoga and Naturopathy Education and Research), Gujarat Ayurved University campus, Jamnagar, Gujarat, India.

Inclusion criteria

- Patients who are fulfilling the DSM – IV TR diagnostic criteria of PE (302.75).[6]
- Belonging to the age group between 20 and 60 years.

Exclusion criteria

- Substance induced PE.
- PE associated with major organic and psychotic disorders.

Ethical consideration

The study was cleared by the institutional ethics committee. Written consent was taken from each patient willing to participate before the start of the study. A detailed history of each patient was taken. A general physical examination of all systems was performed. After establishing the diagnosis using *Diagnostic and Statistical Manual IV*, the patients were allocated to *yoga* and *naturopathy* groups. Patients were free to withdraw from the study at any time without giving any reason.

Study design

Comparative clinical study.

Assessment criteria

Before treatment and after treatment, total two assessments were carried out. Criteria of assessment were based on the *Premature Ejaculation Severity Index* (PESI). It is composed of 10 questions. Each question was responded to on a 0-10 point scale.[7]

Grouping

Selected patients were randomly divided into two groups (*Yoga* group and *Naturopathy* group) by following the alternate method (first patient in the *yoga* group, second patient in the *naturopathy* group, third patient in the *yoga* group like that alternatively).

Intervention in the *Yoga* group

The duration of the protocol in this group was 3 weeks. Patients followed the protocol daily 1 hour in the morning (6-7 AM) for 21 days. The protocol started with prayer followed by loosening exercises (stretches and rotations), *suryanamaskara's* (Sun salutation) and *asanas like siddhasana* (Accomplished pose), *padmasana* (Lotus pose), *ushtrasana* (Camel pose), *naukasana* (Boat pose), *pawanamuktasana* (Leg lock pose), *yoga mudrasana* (Psychic union pose), *shavasana* (Corpse pose), *setu bandhasana* (Bridge pose), *bhujang asana* (Cobra pose), *matsyasana* (Fish pose), *dhanur asana* (Bow pose), *shalabh asana* (Locust pose), *hal asana* (Plough pose), *koorm asana* (Tortoise pose), *paschhimottanasana* (Back stretching pose), *vyaghrasana* (Tiger pose) were practiced. Among all of these *asanas*, only some of them were practiced by the patients according to their flexibility and convenience. *Asanas* were followed by *moolabandha* (Perineal contraction pose), *vajroli mudra* (Thunderbolt attitude), *anuloma viloma pranayama* (Alternate nostril breathing), and *agnisar pranayama* (Activating digestive fire).

Vajroli mudra

After sitting in siddhasana or any comfortable meditation posture with the head and spine straight, placing the hands on the knees in chin or jnana mudra; the eyes should be closed and the whole body should be in a relaxed condition. Then take the awareness to the urethra. Inhale, hold the breath in, and try to draw the urethra upward. This muscle action is similar to holding back an intense urge to urinate. The testes in men should move slightly due to this contraction. Focus should be on the force of the contraction at the urethra. Bending a little forward during the contraction helps to isolate this point. While releasing the contraction one should exhale and relax. In the present study, *vajroli mudra* was practiced up to 5 minutes.

The protocol was not rigidly fixed and the patients were told to practice *yoga asanas, mudra, bandha,* and *pranayama* according to their body's flexibility, convenience, and stamina.

Intervention in the *naturopathy* group

Massage of the lower abdomen and lower limbs followed by steam, sitz bath, mud pack on lower abdomen, and acupressure were selected as treatment modalities in the naturopathy group. The duration of the protocol in this group was three weeks. Patients followed the protocol daily for 30 minutes in the morning (7-7.30 AM) and 30 minutes in the evening (6-6.30 PM) for 21 days. In the morning time, lower abdomen massage and steam followed by hip bath and *lingasnana* (Penile bath) were done. In the evening time, mud pack on lower abdomen followed by acupressure was performed.

Lower abdomen and both the lower limbs massage was done for 15 minutes with *tila taila* (sesame oil) followed by application of the steam. This was followed by the sitz bath (partial immersion bath of the pelvic region). It was given in a specially constructed tub. The tub or basin was filled with enough water that to cover a person's buttocks and hips so that the water reaches the level of the navel. Patient sits in the tub for 10 minutes. After this bath, *lingasnana* was also done.

LingaSnana (Penile bath) procedure consists of pouring cold water on the glans penis from the height of 2 to 4 inches with the help of the mug. The water should be poured on glans after retracting the prepuce back. The stream of water should be continuous without interruption. After doing *lingasnana*, the prepuce should be drawn back.

Mud pack was done with the clay which was grinded, sieved, mixed with cold water, and it was made with consistency like soft dough. This mud was spread on a strip of cloth with the dimensions 20 cm × 10 cm × 2.5 cm. The pack was applied on the lower abdomen (from the navel to the pubis). After that, a thick woolen cloth was placed on the mud pack. The mud pack was kept for 15 minutes. After that it was removed, the skin was cleaned by using a soft piece of cloth dipped in cold water.

Mud pack was followed by acupressure, for which particular points were selected: Sacral points (B1 27-34), Sea of vitality (B1 23-47), Bubbling springs (Ki 1), Sea of energy (CV 6), Gate origin (CV 4), Mansion cottage (Sp 13), Rushing door (Sp 12), Three mile point (St 36), and Bigger stream (Ki 3). These points were recommended in treating impotency and various sexual problems.[8]

Statistical analysis

The information gathered on the basis of observations were subjected to statistical analysis in terms of Mean difference, Standard Deviation (S.D), Unpaired "*t*" test carried out at $P < 0.05$, $P < 0.01$, $P < 0.001$. The obtained results were interpreted as follows:

Insignificant = $P > 0.05$

Significant = $P < 0.05$, $P < 0.01$

Highly significant = $P < 0.001$

Overall effect of therapy

Overall effect of therapy was estimated as follows:

1. 100% relief – Cured
2. >75% to <100% – Marked improvement
3. >50% to 75% – Moderate improvement
4. >25% to 50% – Mild improvement
5. 0% to 25% – Unchanged

Observations

Maximum number of the patients, i.e., 66.67% belongs to the age group of 21-30 years (Mean age is 30.92 ± 8.2 years), 50% were married, and 75% were graduates and belongs to nuclear type of family. All of the patients had acquired sub-type of PE with psychogenic etiology. All of the patients reported their duration of foreplay less than 2 minutes and duration of intercourse less than 3 minutes. In 50% of the patients, extra-marital and pre-marital sexuality was found. A majority of the patients, i.e., 66.7% were having 3-5 years of history of chronicity.

RESULTS

In the *Yoga* group, 7.2% relief was found in PESI 2 (what percent of all sex acts are you unable to choose when to ejaculate?) and PESI 6 (how difficult is it for you to control or choose when you ejaculate?) which were statistically significant at $P < 0.05$. Maximum relief (14.6%) was found in PESI 4 (if you can have intercourse, how long is it before you ejaculate?) which is statistically significant ($P < 0.01$). In the *Naturopathy* group, maximum relief was found in PESI 4, i.e., 7.8% which is statistically significant ($P < 0.05$).

On comparing the effect of therapy in between the two groups, there was no statistically significant difference found in all questions in between the two groups [Table 1].

Table 1: Comparison of effect of therapy on PESI

PESI	*Yoga* group (*n*=6) M. Diff with SD*	*Naturopathy* group (*n*=6) M. Diff with SD*	*t* value	*P* value
PESI-1	0.16±0.40	0±0	1	>0.05
PESI-2	0.66±0.51	0.33±0.51	1.13	>0.05
PESI-3	1.16±1.47	0±0.63	1.81	>0.05
PESI-4	1±0.63	0.5±0.54	1.51	>0.05
PESI-5	0±0	0±0	0	>0.05
PESI-6	0.66±0.51	0.33±0.51	1.13	>0.05
PESI-7	0±0	0±0	0	>0.05
PESI-8	0.16±0.40	0±0	1	>0.05
PESI-9	0.16±0.40	0±0	1	>0.05
PESI-10	0.83±0.98	0.50±0.83	0.64	>0.05

*Standard deviation; PESI = Premature ejaculation severity index

Effect of therapy based on total score of PESI

After treatment period, the % of relief on PESI total score was 7.3% ($P < 0.01$) in the *Yoga* group and 2.4% in the *Naturopathy* group ($P > 0.05$) [Table 2].

On comparing the effect of therapy on PESI total score in between the two groups, it was found that the mean difference was 4.83 in the Yoga group with SD ± 3.65 and in the Naturopathy group the mean difference was 1.66 with SD ± 2.06. The "*t*" value was found to be 1.88 which was statistically insignificant ($P > 0.05$). There were no significant side effects or drop outs reported during the course of treatment.

The overall effect of therapy based on PESI was calculated after treatment. It was found that in both *Yoga and Naturopathy* groups there was no improvement found. The overall effect of therapy comes under the category of "Unchanged" or "No relief" (less than 25% relief) for both groups. It means that both the treatments were not effective in PE.

DISCUSSION

The concept of PE can be better understood by the concept of *Bindu* (semen) in *Hatha Yoga Pradeepika*. *Bindu Samrakshana* (conserving semen) is the unique concept of *Hatha Yoga Pradeepika*,[9] which can be applied in the treatment of PE. *Vajroli mudra* (thunderbolt attitude) is a unique procedure of *Yoga* which is very useful in the conditions like PE.[10]

Basically all the sexual functions are governed by *Mooladhara* and *Swadhishtana Chakras*. So any disturbance in the functioning of this *Chakras* may lead to various sexual dysfunctions. PE also caused by the dysfunction of *Mooladhara* and *Swadhishtana Chakras*. To correct this, various *Asanas* were selected, which basically act on *Mooladhara, Swadhishtana,* and *Ajna* Chakras.[11]

PE is an extremely common disorder affecting young males. Although an exact mechanism is not known by which Yoga is useful in PE, several postulations could be made about its putative mechanisms of usefulness. Yoga asanas and breathing exercises have long been considered in obtaining the "optimum mental and physical health state." *Yoga* could perhaps be causing better anxiety control. This assertion is supported by several studies. Measurable decline in anxiety scores could be achieved as early as within 10 days if the patients adopt healthy life style interventions consisting mainly of *asanas, pranayama,* and relaxation techniques. Others have reported that *yoga* promotes well-being, improves quality of life, and has an anti-depressant effect. Relaxation induced by meditation helps to stabilize the autonomic nervous system with a tendency toward parasympathetic dominance. Additional mechanisms contributing to a state of calm alertness includes increased parasympathetic drive, calming of stress response systems, neuroendocrine release of hormones, and thalamic generators.[4] But in the present study, no improvement was observed in both *yoga* and *naturopathy* groups on the questions like PESI 7 (how upset is your sexual partner because of your PE?) PESI 8 (how upset are you because of your PE?), and PESI 9 (how much has your PE affected your life in general?) which generally measures the anxiety, depression, and stress levels of the patient and his partner.

The *yoga asanas* selected in the present study were aimed at improving the muscle tone and plasticity of pelvic and perineal muscles. *Asanas* supposedly improve blood flow to these muscles and thus aid in better contraction. It has been observed that a regular practitioner of *yoga* shows parasympathetic dominance. Stimulation of the sympathetic nerves causes contraction of epididymis, ejaculatory ducts, and seminal vesicles and leads to ejaculation of semen. Increasing parasympathetic stimulation is beneficial in enhancing ejaculatory control.[4] In the present study also, in the *yoga* group, 14.6% of improvement was observed in PESI 4 (IELT), which is in line with the findings of the earlier studies.

Causes for negative results

Both *Yoga* and *Naturopathy* procedures were proved ineffective in providing relief in PE based on total scores of PESI. This may be due to

- Small sample size
- Shorter duration (21 days) of the treatment
- Majority of the patients, i.e. 66.7% were having 3-5 years of chronicity
- Erectile dysfunction as a co-morbid condition was observed in 25% of the patients.

CONCLUSION

Even though both *Yoga* and *Naturopathic* procedures didn't provide relief on total score of PESI, encouraging results

Table 2: Effect of therapy on total score of PESI

Group	Sample size (n)	Mean score BT	Mean score AT	M. Diff with SD	% of relief	t value	P value
Yoga	6	65.8	61	4.83±3.65	7.3	3.23	<0.01
Naturopathy	6	66.6	65	1.66±2.06	2.4	1.97	>0.05

AT = After treatment; BT = Before treatment; SD = Standard deviation

were observed in the items like IELT and control over ejaculation with 21 days of short duration of treatment. Because ours is a pilot study with a small sample size and shorter duration, it would be worthwhile to do more studies involving a large number of patients with long duration to establish *Yoga* and *Naturopathy* as a well tolerable, safe, and effective non-pharmacological treatment options for PE.

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