

KNOWLEDGE ATTITUDE AND PRACTICE SURVEY RELATED TO KEGEL EXERCISES AMONG GYNECOLOGISTS

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ABSTRACT

During pregnancy, women undergo various problems. Most widespread problem faced by women is pelvic floor muscle weakness. Kegel exercises are recommended treatment option for strengthening the pelvic floor muscles. The aim of this study was to evaluate the knowledge, attitude and practice related to Kegel exercises among gynecologists. A cross-sectional KAP survey was conducted on 159 gynecologists selected from District Head Quarter (DHQ) hospital Gujranwala and Jinnah hospital Lahore during March to August 2022 through non-probability convenient sampling. Data were collected by using a validated questionnaire. Using of SPSS software version 24, data were entered and analyzed. Out of total, 130(81.70%) including gynecologists belongs to the age <40 years, and 75(47.20%) had <5 year experience and 70(44%) had MBBS degree only. Out of the total (n=159), 144 (90.6%) respondents had good knowledge and 87(54.7%) with positive attitude. Regarding practice 106(66.70%) were moderately whereas only 3 (1.9%) strongly recommend Kegel exercises during pregnancy to the women. Although the gynecologists had sufficient knowledge with positive attitude however practice to recommend about Kegel exercise was very low.

Keywords: Kegel exercise, knowledge, attitude, practice, gynecologists

INTRODUCTION

The primary source of support for the pelvic viscera is the pelvic floor muscles. These muscles undergo various changes during a woman's life; especially during the prenatal, intrapartum and postpartum periods, as well as during menopause.¹ PFD is a complicated process that can be brought on by trauma, degeneration, weak supporting tissue structures, and other factors. With an increase in life expectancy, pelvic floor dysfunction is becoming more common. Pelvic organ

prolapse, an overactive bladder, and urinary incontinence (UI) are just a few of the clinical issues referred to as pelvic floor dysfunction. Complexity increases with pelvic floor dysfunction, particularly during pregnancy and childbirth.^{2 3}

For females with pelvic organ prolapse, urine incontinence, or pelvic floor muscular dysfunction, Kegel exercises are a first-line conservative treatment.⁴ The muscles that make up the pelvic floor are repeatedly contracted and relaxed throughout six different Kegel exercises. The muscles go through a 10- to 15-time cycle of contraction and relaxation.⁵ Throughout pregnancy and the postpartum period, Kegel exercises for the pelvic floor muscle are helpful in avoiding and treating pelvic floor issues. The necessity for a caesarean section can also be decreased, natural childbirth is made easier, and mental health can be enhanced.⁶

Kegel exercises (PFME) throughout pregnancy and after delivery have been established in numerous randomized trials to maintain muscle strength in order to lower the risk of urine incontinence and maximize sexual performance. Kegel exercises have been demonstrated in studies to increase the standard of living for women with PFD.⁷

Studies supporting the effects of Kegel exercise therapy as a secure, affordable, and at-home treatment is available.⁸ The utilization of physical therapy services, on the other hand, is depending on the gynecologist's knowledge and attitudes about physiotherapy. Healthcare professionals can make a big difference by routinely checking high-risk women for PFMD and encouraging those who already have the disease to undergo PFME. Misconceptions about PFME can be dispelled through education, which can also boost motivation and compliance.^{9, 10}

The right reason for pelvic floor muscle workouts (PFMEs) is provided by healthcare experts, which might increase patients' capacity and motivation to perform them on a regular basis.³ Physical therapy services in obstetrics and gynecology are important in providing an appropriate health care service. The utilization of physical therapy services, on the other hand, is depend on the gynecologist's knowledge and attitudes about physiotherapy.¹¹

A previous study indicates that a limited literature was presented to show the awareness, behaviors and practice related Kegel exercises in gynecologists. Current study was carrying out to gauge the level of knowledge, attitude and practice related to Kegel exercise from gynecologists.

METHODS

Design, setting and participants

A cross sectional KAP survey was performed on 159 gynecologists. Gynecologists were selected who were professional and having practice from at least 2 years by non-probability convenient sampling technique between March 2022 to August 2022 from the hospitals of Gujranwala and Lahore division (District Head Quarter hospital Gujranwala, Central hospital Gujranwala, City Hospital Gujranwala, Mayo hospital Lahore, Jinnah hospital Lahore, General hospital Lahore). Data were collected by a validated questionnaire from gynecologists.

Data collection procedure

Questionnaire was consisting of four parts, first socio-demographic data, second knowledge part, third attitude and fourth one was for practice. Socio-demographic part contains age group, degree of participants and no. of years in practice of participants. The questionnaire's knowledge, attitude, and practice Cronbach Alpha scores were 0.949, 0.837 and 0.742 respectively. Knowledge part consists of 16 questions related to knowledge of Kegel exercises, benefits and methods used to do Kegel exercises. For each question, "yes" or "no" was provided as an answer. Correct answers received a score of 1 point, while wrong answers received a score of 0. Out of a possible score range of 0 to 16, the level of knowledge was divided into three levels: poor (<5 score), moderate (6 to 10 score), and good (>10 score). A 5-point scale with the options of strongly agreeing (5) or strongly disagreeing (5) was utilized for the attitude component (1). It has a total of 8 questions and a score range of 8 to 40. Last but not least is the practice component, which consists of 4 items with a total score range of 4–20 on a 5-point Likert scale with scores ranging from "never to always" to 1–5.

Ethical Approval and Considerations

This study was approved by Institutional Review Board (IRB) of University of Lahore, Lahore. Written permission was obtained from each participant. All information and data were kept confidential.

Statistical Analysis

Data were analyzed by statistical software SPSS version 24. Numerical data were described in mean and standard deviation. Whereas frequencies and percentages were calculated for qualitative variables. One sample t-test was applied to compare the average score with a specific value and Pearson correlation coefficient was used to find the association of knowledge, attitude

and practice related Kegel exercises among of professional gynecologists. All data were analyzed at 95% confidence interval and p-value ≤ 0.05 was considered as significant value.

RESULTS

In this current survey 159 gynecologists with having at least 2 years' experience were selected by non-probability convenient sampling technique. Out of total (n=159), about 130(81.70%) gynecologists were <40 years of age, 70(44%) participants were having last degree MBBS whereas 104(65.40%) that were 2/3 having <10 years of practical experience shown in **Table 1**.

Table 1. Baseline characteristics of study population

Variables	Responses	n	%
Age group (in years)	<30	39	24.5
	30-39	91	57.2
	40-49	21	13.2
	50-59	5	3.1
	>60	3	1.9
Last degree of participants	MBBS	70	44
	MCPS	35	22
	FCPS	54	34
Practical experience (years)	<5	29	18.2
	5-10	75	47.2
	10-15	34	21.4
	>15	21	13.2
Total		159	100

Knowledge, attitude and practice of gynecologists about the Kegel exercise were presented in **Table 2**. Participants with good Knowledge and positive attitude were 144(90.60%) and 87(54.70%) however, moderately and strongly recommended for Kegel exercise were 106(66.70%) and 3(1.90%) respectively.

Average score of knowledge (12.39 ± 1.33), attitude (30.82 ± 3.17) and practice (10.50 ± 2.47) was tested at 5, 30 and 15 with having total score range 6-16,8-40 and 4-20 respectively that had highly statistical significant difference with p-value < 0.001 that is shown **Table3**.

In **Table 4**, association among knowledge, attitude and practice was presented. Relation of gynecologist's attitude with knowledge was found weak and inverse ($r = -0.167$, p-value=0.036) and with practice to recommend Kegel exercises was observed weak positive ($r=0.252$, p-value=0.001) these were also statistically significant difference.

Table 2. Knowledge, attitude and practice from gynecologists about the Kegel exercises

Variables	Categories	n	%	χ^2	P-value
Knowledge	Moderate	15	9.4	104.66	$< 0.001^*$
	Good	144	90.6		
Attitude	Negative	2	1.3	76.34	$< 0.001^*$
	Neutral	70	44		
	Positive	87	54.7		
Practice	Weak	50	31.4	100.34	$< 0.001^*$
	Moderate	106	66.7		
	Strong	3	1.9		
Total		159	100		

“*” statistical significant difference,

Table 3. Comparison of knowledge, attitude and practice

Variables	Mean±S.D	T-Score	P-value	95% Confidence interval (LL-UL)	
Knowledge, Range 6-16 (tested value=5)	12.39±1.33	70.021	<0.001*	7.18	7.6
Attitude, Range 8-40 (test value =30)	30.82±3.17	03.28	0.001*	0.33	1.32
Practice , Range 4-20 (Tested value=15)	10.50±2.47	-22.98	<0.001*	-4.88	-4.11

“*” statistical significant difference, LL= lower limit, UL=Upper limit

Table.4 Association of knowledge, attitude and practice

Association	(r)	P-value
Knowledge vs. Attitude	-0.167	0.036*
Knowledge vs. Practice	-0.039	0.626
Attitude vs. Practice	0.252	0.001*

“r” indicate the Pearson Correlation Coefficient, “*” statistical significant difference

DISCUSSION

Current study was implemented to assess the gynecologist's knowledge, attitudes, and practices regarding Kegel exercises. The results suggest that 90.6% gynecologists have good knowledge, 54.7% have positive attitude, but only 1.9% show strong practice to recommend Kegel exercises during pregnancy. The results of this investigation are consistent with a previous study performed in a tertiary care institutions in Karachi, Pakistan in 2013, only a small percentage of gynecologists recommend exercise to pregnant patients; the majority never do this.¹²

Another study conducted by researcher and colleagues in 2021 in Saudi Arabia among primary care physician who concluded 97.3% have good knowledge regarding exercises during pregnancy, and more than half (55.2%) did not advise their patients to exercise.¹³ According to this study's findings, it is evident that 90.6% have good knowledge and (31.4%) gynecologists did not recommend their patients for Kegel exercise during pregnancy.

In the study findings only 1.9% strongly recommends Kegel exercise. Another study was conducted in the state of Michigan in the US. The study findings show that, 99% of medical professionals recommend exercise during pregnancy, and the difference between the two countries is because more doctors in the latter country are aware of exercises.¹⁴ Similarly, another study was carried out in the US in 2017. The majority (57%) said they do not typically urge inactive patients to exercise while pregnant.¹⁵ According to my study findings 31.4% does not recommend Kegel exercise to women during pregnancy. Busy schedule of health professional was one of the obstacles to the smooth data collection.

In order to investigate how boosting knowledge of pelvic floor muscle function influenced pelvic floor dysfunction, researchers conducted a study in 2015. According to their study's findings, both participant groups those who received both PFM exercise education interventions and those who only received the first intervention exhibited remarkably substantial gains in PFK ($p < 0.001$). Additionally, in the groups receiving PFM exercise education, there was a highly significant decrease in PFD symptoms (99% confidence) and a considerable increase in quality of life (95% confidence). Improvements in quality of life and a decrease in PFD symptoms were substantially correlated with knowledge/awareness gains following education, and low levels of PFK were linked to high PFD incidence.¹⁶ In my study, I looked at the relationship between gynecologists' levels of knowledge, practice, and attitude in relation to the Kegel exercise. These correlations, however, were not significantly connected ($p > 0.05$), as there is a poor relationship between knowledge and practice. The majority of gynecologists do not advise pregnant women to perform Kegel exercises. A study shows that the prevention and treatment of pelvic floor issues throughout pregnancy and the postpartum period might be aided by performing Kegel exercises for the pelvic floor muscles.¹⁷

A study was carried out in 2022 by author .43% of the personnel were recommend exercises during pregnancy, according to the study's findings.¹⁸ In my study finding I looked that only few gynecologists recommend Kegel exercises to their patients. Another study conducted in Dhule district. The study findings suggest that, it is necessary for physiotherapists and obstetricians and gynecologists to engage and communicate more effectively.¹⁹ Author from China carried out a cross-sectional investigation in 2021. Most obstetrical healthcare professionals are aware of pelvic floor dysfunction and have a positive outlook, however they rarely guide and mentor patients on pelvic floor dysfunction.²⁰ Authors carried out a study. The study's findings show that a routine of 30 Kegel exercises performed once to three times each day for at least three months is recommended to treat.²¹

Authors conducted a study in 2021. The study findings show that, medical experts had an optimistic response to training while pregnant. They encourage their patients to perform guidance control exercises.²² In my study findings only few gynecologists recommend Kegel exercises. Authors conducted a study in 2018. According to study findings, the majority (97 percent) advise patients in their first trimester to engage in aerobic activity two to five days per week, while the suggested frequency and duration vary. In the first trimester, only one-fourth (24 percent) advise strength training. 25 % and 32 % of respondents advise reducing aerobic or strength-training activity.²³ According to current study 1.9% recommends Kegel exercises to their patients.

In Pakistan, 12.8% of people have pelvic inflammatory disease. The study shows that the Kegel exercise training program improves women's quality of life while also reducing urine incontinence.²⁴ In 2012, author conducted a study. The study findings shows that the majority of healthcare doctors believed that being physically active throughout pregnancy will improve a variety of health outcomes for the mother and the unborn child.²⁵ Participants' knowledge was 90.6% according to my study's findings, although only a small percentage of gynecologists currently offer Kegel exercises to women who are not pregnant, according to the current study. This study demonstrates a weak positive non-significant association between attitude and knowledge, a weak negative correlation between practice and attitude, and a weak positive non-significant correlation between practice and attitude. Current study was a multi central survey that was strength of this study. Use of non-probability sampling technique could be cause of

selection bias that was the weakness of study. It is essential to run demo session in health clinic and hospitals to encourage Kegel exercise not only to health professional but also to community.

CONCLUSION

It was concluded on the bases of findings that gynecologist's knowledge was observed good and positive attitude but practice of recommendation Kegel exercises was very limited as compared to knowledge and attitude. Association attitude with knowledge and practice was observed significant. It is appeal to gynecologist to adopt professional behavior related to recommending physical therapy and Kegel exercises during pregnancy for better outcomes.

Conflict of Interest

There was no any conflict of interest

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Data availability

Data will be provided on the demand by corresponding author

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