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ASSESSMENT OF HEALTH AND QUALITY OF LIFE: VARIATIONS BETWEEN NATURAL AND INDUCED MENOPAUSAL WOMEN

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ABSTRACT

Menopausal health impacts among women vary. The research aimed to examine the problems of women with natural menopause and induced menopause in the year 2022-23.The evaluation of the study was on the basis of a self-prepared questionnaire and Menopause-Specific Quality of Life developed by Department of Family and Community Medicine, Sunnybrook Health Science Centre, University of Toronto, Canada in 1996 (MENQOL),the tool to evaluate the quality of life. About fifty sample each in natural menopause and induced menopause were chosen from various places in Kerala.The study opined that either the induced and natural menopause women had no significant relation with BMI. But the waist hip ratio pointed out that 20 per cent induced menopause women were at higher risk category than natural menopausal women (4%). Also, the physiological problems like diabetes (70%), dizziness (62%) and gastritis (60%), psychological problems like mood swings (100%), anxiety (66%), trouble sleeping (64%), sexual and genital problems like decreased libido (84%), itching (72%), vaginal dryness (60%) were high among induced menopausal women than natural menopause women. Menopause specific quality of life questionnaire showed that the quality of life at physical (flatulence-90%, aching in muscles and joints- 96%) and sexual domains (change in sexual desire-90%) affected mostly among induced menopause women.

Keywords: health, menopause, quality of life, women

INTRODUCTION

Most people in India, either ignore menopausal symptoms or don't pay attention to them. Menopause should be viewed as merely one step of a continuum of ages, not as the end of life. Prior health, reproductive, lifestyle, and ecological factors have a significant impact on a woman's health as she enters the menopausal stage.

Menopause marks the end of a woman's fertile life, and is an indicator of ageing.Regarding menopause, lack of awareness and leading ways to secure knowledge are some challenges that can be amplified by the facility of contradictory data.Menopause creates changes in the life pattern in multiple ways in their physical, emotional, social and financial factors.

Today we need for ongoing research on the social and biological factors influencing the menopausal experience so that we can develop better strategies to promote healthy

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ageing for women of all races and ethnicities. The information obtained from the research could be used to lessen the menopause-related problems and offer a foundation to arrange health care for menopausal women based on their necessities. Menopausal health is crucial for women's overall health and well-being. Understanding and addressing the physical, emotional, and hormonal fluctuations that happen during menopause helps in leading a healthier and more fulfilling life for women as they embrace this natural phase of life. Proper medical guidance, lifestyle adjustments, and self-care practices play vital roles in promoting menopausal well-being and ensuring women accepting the change with confidence and good health. The crrent research was carried to find out the variations in the effect of natural and induced menopause.

MATERIAL AND METHODS

Research design

The research was a cross sectional study. The area selected for the research was in different parts of Kerala as the number of women which affect the menopausal impacts were large. Also, the number of women who induce menopause due to cancer chemo-therapy, oophorectomy etc are increasing day by day.

Selection of sample

The sample were selected using a purposive sampling technique. Women who were > 45 years of age staying at homes and who agreed to contribute in the research were selected. The sample selected for the research consisted of 50 natural menopause and 50 induced menopause women. Purposive sampling refers to a set of non-probability sampling procedures through which sample are selected having common features necessary for the study. The designated method to purposive sampling used in each sample creates a way to the research design (Prior *et al.,*2020).

Selection of tool

The tool for the study was a self-prepared questionnaire to assess the health impact of natural and induced menopause. The Menopause-Specific Quality of Life Questionnaire (MENQOL)was used to evaluate the quality of life related to health issues among the post-menopausal women (Karmakar *et al.,* 2017). An inherent assum-ption of the MENQOL is that menopause causing symptoms interrupt emotional, physical, and social facets of a woman's life, which must be measured parallel with treatments.

Anthropometric assessments:

Anthropometric measurements (height, weight, hip circumference, waist circumference) were taken by the techniques detailed in Mini Nutritional Assessment guide (MNA guide). The weight (kg), height (m), waist circumference and hip circumference were measured. Anthropometric measurements are noninvasive quantitative measurements of the body. According to WHO (1995) anthropometry provides a valuable assessment of nutritional status in children and adults. The BMI and waist to hip ratio are measured and calculated. Body Mass Index (BMI) is a person's weight in kilograms (or pounds) divided by square of height in meters (or feet).

Interpretation of data

The investigator collected the data that was provided by the sample with the questionnaires. The total score of each subsection in the questionnaire was calculated and found out the percentage. The results were tabulated, analysed and interpreted. Analysis of data was done using Microsoft Office Excel 2010. Numerical variables were transformed

into ordinal or nominal variables. Chi-square test was performed for qualitative variables. The associations were quantified as odds ratios with 95 per cent confidence intervals. P value less than 0.05 was regarded as statistically significant.

RESULTS AND DISCUSSION

Anthropometric measurements

Anthropometric measurements explain about the BMI and waist - hip ratio of the sample.

BMI of the sample

Table 1 describes the BMI of the sample.

The table gives the information about BMI of the sample. From the table 30 per cent natural menopause women were underweight, 42 per cent were normal,16 per cent were overweight and 12 per cent of them were obese. Regarding induced menopause 34 per cent of them were underweight, 38 per cent of them were normal, 22 per cent of them were overweight and 6 per cent of them were obese. The chi square static is 1.7and the p value is 0.637 which is not significant.

Waist - hip ratio of the sample

Table 2 shows the waist to hip ratio of the sample**.**

The table gives information about waist hip ratio of the sample. In natural menopause women 40 per cent were underweight,56 per cent were normal weight and 4 per cent of them were overweight or obese. While seeing induced menopause women 30 per cent of them were underweight or malnourished,50 per cent of them were normal and 20 per cent of them were overweight or obese. The study shows that induced menopause women were overweight than natural menopause women. The chi square static value is 6.22. The p value is 0.0446. Medications such as antidepressants and hormone treatments among some menopausal women promote weight gain(Stanford *et al.,* 2020).

Physiological problems

Many symptoms are related with the menopause, but the two that are usually the most significant and therefore most distressing to women are the hot flush, which often leads to insomnia, and vaginal dryness. These symptoms are associated with a decrease in oestrogen levels and are experienced by over 70 per cent of women. Most menopausal symptoms can be classified into either physical or psychological in nature (Santoro *et al.,* 2015).

Table 1. BMI of the sample N = 100

	Natural menopause		Induced menopause			
Categories of BMI (Kg/m²) *	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Chi square static**	**p value**
Underweight(<18.5)	15	30%	17	34%		
Normal (18.5- 24.9)	21	42%	19	38%	1.7	0.637
Pre-obesity(25- 29.9)	8	16%	11	22%		**NS
Obesity (>30)	6	12%	3	6 %		

*****World Health Organization(2000)

* *Not Significant

Table 2. Waist to hip ratio of the sample N= 100

	Natural menopause N=50		Induced menopause N=50			
Waist hip ratio. *(Waist circumference /hip circumference**)**	**Frequency**	**Percentage**	**Frequency**	**Percentage**	**Chi square static**	**p value**
Low (<0.8)	20	40 %	15	30%	6.22	.0446**
Moderate (0.81 – 0.86)	28	56%	25	50%		
High (>0.86)	02	04%	10	20%		

* World Health Organization (2000)

* *Significant at p< .05

The Table 3 shows the physiological problems of the sample**.**

Among natural menopause women majority (78.00%) of them had hot flashes, followed by hypertension (64.00%), muscle pain (54.00 %), feelings of dizziness (56.00%) and similar number (52.00%) of respondents had both joint pain and diabetes, whereas, among induced menopause women, 74 per cent of them had hot flashes followed by

Table 3. Physiological problems N =100

Parameters	**Natural menopause n = 50**		**Induced menopause n = 50**	
Physiological problems	**Frequency***	**Percentage**	**Frequency***	**Percentage**
Hot flashes	39	78%	37	74%
Diabetes	26	52%	35	70%
Feeling of dizziness	28	56%	31	62%
Gastritis	26	52%	30	60%
Hypertension	32	64%	28	56%
Irritability	24	48%	26	52%
Joint Pain	26	52%	25	50%
Urinary problems	12	24%	24	48%
Muscle pain	27	54%	24	48%
Cold flashes	12	24%	20	40%
Heart palpitations	14	28%	20	40%
Heart beats slowly	16	32%	20	40%
Headache	10	20%	18	36%
Clammy feeling	8	16%	12	24%
Liver diseases	5	10%	3	6%
Asthma	0	0	1	2%

**Multiple choices*

diabetes (70.00%), feeling of dizziness (62.00%), gastritis (60.00%), hypertension (56.00%), irritability (52.00%) and joint pain (52.00 %).It is evident that induced menopause women undergo physiological problems than natural menopause women. In recent studies the menopause symptoms include symptoms like hot flushes and night sweats, sleep difficulties, fatigue, gastritis, urinary problems, palpitations, joint pains, thinning of nails, dryness of skin/eyes, and changes to skin and hair. It is observed that earlier symptom development in the transition signals a longer duration of bothersome symptoms(Santoro *et al.,*2015).

Psychological problems

The psychosocial and behavioural factors (e.g., social support, loss of interest in sex, stressful events) among women transitioning into menopause might be particularly susceptible to mood disturbances in general and depressive symptomology in particular (Cheng *et al.,* 2022).

Table 4 shows the psychological problems of the sample**.**

A major proportion of women experience psychological and cognitive symptoms during menopause, whether it occurs naturally or is induced. Among women undergoing natural menopause, 68 per cent reported experiencing mood swings, while 62 per cent faced heightened stress levels, 60 per cent struggled with sleep disturbances and had difficulties with cognitive functions, particularly in thinking clearly. Also, 50 per cent had loss of interest in activities. In contrast, women experiencing induced menopause seemed to report an even greater prevalence of such symptoms. Every woman in the group reported mood swings, while66 per cent experienced anxiety, trouble sleeping was affected for 64 percent,60 per cent found it challenging to concentrate, 56 per cent indicated a loss of interest and 52 per cent faced difficulties with clear thinking. Rao *et al.,* (2017) stated that depression and psychiatric problems were common in post-hysterectomy women.

Table 4. Psychological problems N =100

Parameters	**Natural menopause n = 50**		**Induced menopause n = 50**	
Physiological problems	**Frequency***	**Percentage**	**Frequency***	**Percentage**
Mood swings	34	68%	50	100%
Anxiety	21	42%	33	66%
Trouble sleeping	30	60%	32	64%
Difficulty in concentrating	18	36%	30	60%
Loss of interest	25	50%	28	56%
Difficulty in thinking	30	60%	26	52%
Stress	31	62%	33	44%
Crying spells	6	12%	20	40%

**Multiple Choices*

Table 5: Sexual and genital problems N= 100

Parameters	Natural menopause n = 50		Induced menopause n = 50	
Physiological problems	**Frequency***	**Percentage**	**Frequency***	**Percentage**
Sexual problems				
Decreased libido	37	74%	42	84%
Dyspareunia	19	38%	9	18%
Genital problems				
Itching	30	60%	36	72%
Vaginal dryness	35	70%	30	60%

**Multiple Choices*

Sexual and genital problems

Menopause is a natural and normal process, it can bring about various physical and emotional changes. Some women may feel symptoms like vaginal dryness, decreased libido, mood swings, and variations in bone density (Santoro*et al.,*2015). The reduce estrogen levels can also cause the vaginal issues, causing symptoms like vaginal dryness, itching, and discomfort during intercourse (Lethaby, 2016).

Table 5 shows the sexual and genital problems of the sample.

Among natural menopause 74 per cent of them had sexual problems of decreased libido. compared with induced menopause which was 84 per cent. In the case of genital problems, the results show that 60 per cent of natural menopause women had itching and 70 per cent had vaginal dryness and in induced menopause 72 per cent had itching and 60 per cent had vaginal dryness.

Assessment of quality of life (MENQOL)

Menopause is a physiological phase in women's life that can severely create an impact on the quality of life (QOL). Studies show that psychological symptoms were powerfully associated with menopausal women and have a significant impact on QOL of menopausal women than late postmenopausal women (Bashar *et al.,* 2017). Physical and physiological symptoms usually ago together in menopause and creates an impact on women's health and well-being (Senthilvel *et al.,* 2018).

Menopause, whether natural or induced, significantly impacts a woman's quality of life in various phases, including vasomotor, psychosocial, physical, and sexual aspects. The domain vasomotor shows that hot flashes were experienced by 78 per cent of women undergoing natural menopause, making it a prominent concern whereas among induced menopause groups 74 per cent experienced hot flashes.

In the psycho-social domain about 60 per cent reported feelings of nervousness or anxiety, being impatient with others was another common symptom, affecting 60 per cent of women with induced menopause. Natural menopause women had feelings of nervousness or anxiety affected by 64 per cent, while 52 per cent reported feelings of depression or being downhearted and poor memory was noted for 50 per cent.

Table 6: Quality of life N=100

Parameters	Natural menopause n = 50		Induced menopause n = 50	
Physiological problems	**Frequency***	**Percentage**	**Frequency***	**Percentage**
Vasomotor domain				
Hot flashes	39	78%	37	74%
Sweating	20	40%	24	48%
Night sweats	12	24%	20	40%
Psychosocial domain				
Feeling anxious or nervous	32	64%	30	60%
Feeling of wanting to be alone	32	64%	30	60%
Feeling depressed down or blue	26	52%	30	60%
Experiencing poor memory	25	50%	19	38%
Being impatient with other people	15	30%	20	40%
Accomplishing less than I used to	12	24%	20	40%
Being dissatisfied with personal life	5	10%	10	20%
Physical domain				
Aching in muscles and joints	48	96%	48	96%
Flatulence or gas pains	42	84%	45	90%
Decrease in physical strength	40	80%	45	90%
Feeling tired or worn out	35	70%	40	80 %
Difficulty sleeping	20	40 %	25	50%
Frequent urination	11	22%	25	50%
Feeling bloated	25	50%	28	36%
Drying skin	35	70%	15	30%
Involuntary leakage of urine	5	10%	15	30%
Low backache	13	26%	10	20%
Aches in back of neck or head	22	44%	10	20%
Weight gain	25	50%	10	20%
Increased facial hair	5	10%	6	12%
Sexual domain				
Change in sexual desire	40	80%	45	90%
Avoiding intimacy	30	60%	23	46%
Vaginal dryness during sexual intercourse	24	48%	20	40%

Multiple choices

The physical symptoms were highly common among women with induced menopause. Muscle aches were reported by women in both groups, about 96 per cent, whereas flatulence or gas pains and decreased physical strength were equally prevalent at 90 per cent for women with induced menopause and it was 84% and 80% respectively for women with natural menopause. A notable 80 per cent women with induced menopause felt chronically tired, 50 per cent experienced difficulty in sleeping and had frequent urination. Among women with natural menopause only 70 per cent women felt chronically tired, 40 per cent experienced difficulty in sleeping and 22 percent had frequent urination. With respect to weight gain and bloating, each affected 50 per cent of women in the natural menopause group but was comparatively less in the other group.

The sexual domain shows that changes in sexual desire were reported by 80 per cent in natural menopause women and 90% in induced groups, reflecting a significant impact on this aspect of life.

CONCLUSIONS

Many life challenges were faced during the menopausal period such as stress, age, loneliness, health conditions, diet changes, changes in working pattern etc. Study shows that most of the problems such as overweight (20%), physiological (60-74%), psychological (60-100%), sexual (84%) and genital (72%) were severe in induced menopause women when compared to natural menopause. The quality of life of them was found to be moderately high among induced menopause women mainly in the domains such as vasomotor (74%), psychosocial (60%) and sexual (60%). The study shows that the menopausal stage was a major part in the life of a woman. In the middle age stage, various complicated menopausal symptoms arose. Each middle-aged woman should need to be aware of the menopause stage and the various complications. Proper medications and check-ups were suggested to maintain the health of them.

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