

# The Protective Effects of Breastfeeding on Maternal Lifestyle Disorders: A Systematic Review

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## ABSTRACT

Breastfeeding is considered as a crucial mean to regulate maternal metabolism and protects women from various lifestyle disorders. The incidence of lifestyle disorders shows a dose-response relationship still besides the WHO recommendation, the breastfeeding duration remains steeply low in India and worldwide beyond its extremely beneficial health benefits for child and maternal health resulting into their health to be vulnerable to different life-style disorders. We have programmes in place to educate about the benefits of breastfeeding for infants, but the benefits for maternal health have yet to be proven. To address this issue, this paper is first of its kind to systematically review the articles and throws light and disseminate on the protective effects of breastfeeding over maternal lifestyle disorders.

**Keywords:** Breastfeeding, protective effects, cancer, CVD, diabetes, obesity.

## INTRODUCTION

Breastfeeding is nature's health plan as a gift for infant and mother, with benefits that last lifetime, as it provides all the energy and nutrients that an infant needs upto second year of life. For mothers, breastfeeding has been reported to reduce risk of various lifestyle disorders compared with no breastfeeding. Advantages of starting early breastfeeding include: reducing postpartum bleeding, facilitating positive metabolic changes, facilitating postpartum weight loss, reducing stress, delaying ovulation etc. While continued breastfeeding for >6months helps to increase postpartum weight loss, prolong locational amenorrhea, decrease visceral adiposity, reduced- type 2 diabetes, cardiovascular, breast and gynaecological cancer risk among women. Several scientific studies also report that breastfeeding provides both immediate and long-term benefits to mothers especially if recommendations for exclusive breastfeeding and duration are followed.

The association between breastfeeding and lifestyle disorders in mothers has received increased scrutiny in recent years. Studies suggest that breastfeeding particularly for an extended period of time is associated with decreased risk of lifestyle disorders like diabetes, CVD, obesity and cancer. It is hypothesised that with increased duration of breastfeeding, the incidence of lifestyle disorders decreases as it shows an inverse relationship. Although it's difficult, to estimate the magnitude of association between breastfeeding duration and lifestyle disorders because of the different methodologies used in breastfeeding histories. Literature suggests that exclusive breastfeeding protects against these outcomes by reversing the phenomenon. The current study systematically reviews the literature and attempts to explore the positive effects of breastfeeding and its duration against the maternal lifestyle disorders like diabetes, CVD diseases, obesity and cancer. The study also

recommends few strategies that can be beneficial for encouraging breastfeeding practices and its duration.

## MATERIALS & METHODS

A search strategy for systematic review of literature was developed and studies included demonstrated the beneficial aspect of breastfeeding over maternal lifestyle disorders. Google scholar, Shodhganga, Research Gate, DOAJ, Biomed Central, Science Open, and PubMed were used to conduct literature search. The keywords were decided and using the keywords, authors were searched for scientific publication in the data base from year 2008-2022, additional records from relevant studies were hand-searched to ensure a transparent reporting of the data collection process. After identifying the inclusion criteria, qualified publications were narrowed down through titles and abstracts examination. Based on the PRISMA 2020 guidelines, we provide a flow diagram to visualize the reviewing process.

### Inclusion Criteria:

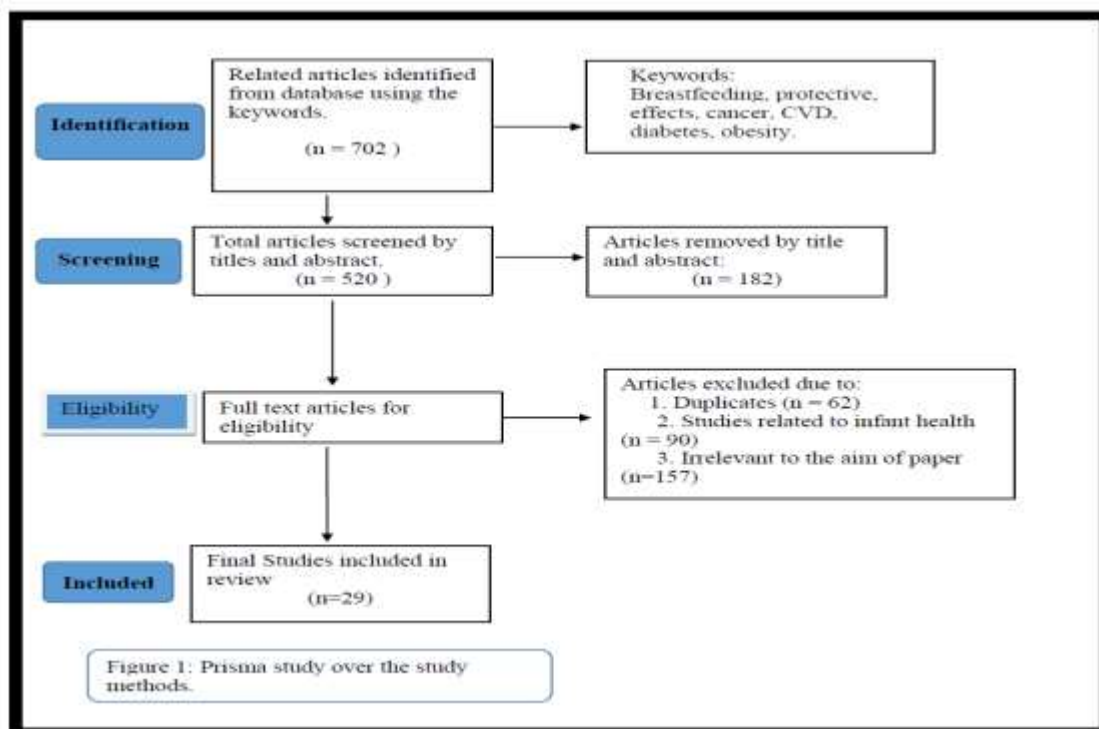
- (i) Studies which examined the impact of breastfeeding over maternal lifestyle disorders such as cancer, diabetes, cardiovascular disease and obesity were selected.
- (ii) Observational studies either case-control or prospective cohort study or systematic reviews or cross-sectional or RCT's were taken
- (iii) Scientific publications from year 2008-2022 were selected
- (iv) Age group of women 18-78yrs were selected.

### Exclusion Criteria:

- (i) Duplicate articles
- (ii) Reviews, abstracts, case studies, published articles that lack critical information.
- (iii) Articles unable to assess breastfeeding and lifestyle disorders relationship
- (iv) Articles examining the impact of breastfeeding on adolescents or infants.

Following the inclusion and exclusion criteria, all relevant abstracts were independently re-evaluated for eligibility and 29 studies were eventually included in this systematic review.

Figure 1 depicts the review process flow diagram.



## RESULT

The findings of relevant literature were analysed and classified into various maternal lifestyle disorders for systematic exploration and interpretation. Each classified sub-theme highlighting the protective effects of breastfeeding on maternal lifestyle disorders were further discussed.

### Breastfeeding and Diabetes

Pregnancy is an insulin-resistant state because placenta, which nourishes and provides oxygen to baby, also secretes hormones like oestrogen, cortisol and human placental lactogen, which can block insulin, resulting into insulin resistance and an increase in blood sugar levels in body. These events cause changes in maternal fasting and postprandial blood glycemia and increased insulin secretion. Lactation helps here in lowering maternal glucose levels and insulin secretion. A study conducted by Han-Nui Kim and colleagues<sup>(1)</sup> concluded that prevalence of diabetes mellitus was lower in women who breastfed their child compared to those who did not. Studies also show an inverse relationship between breastfeeding and diabetes risk, which is strongest in women who have breastfed for at least six months compared to those who breastfed for a shorter period of time and it was also discovered that there was good glycemic control and it can also be used as an approach to prevent diabetes and control glycemic levels in parous women.<sup>(2)(3)</sup> Ranadip Chowdhury et.al<sup>(4)</sup> also concluded that women who breastfed for longer duration have a lower risk of carcinoma and type-2 diabetes. Evidence also suggests that mean of 6-12months of lactation per child is associated with lower incidence of maternal diabetes upto relative risk of 30%<sup>(5)</sup> although it is also proposed that the incidence of maternal diabetes does not decrease after a mean of 12months of lactation per child<sup>(6)</sup>. Furthermore, epidemiological studies are contentious as many recommend that breastfeeding for at least 12months provides significant

prevention by lowering risk of diabetes<sup>(7)</sup>. Intriguingly lactation also plays a protective role in gestational diabetes, as it can be reversed by increasing the duration and intensity of breastfeeding with a favourable glucose metabolic biomarker profile for women<sup>(8)</sup>.

### Breastfeeding and Cardiovascular Diseases:

Pregnancy and lactation are part of a continuum and lactation aids in reversing the adverse metabolic changes that women experience during pregnancy, and that lactation failure results in an increased risk of cardiovascular disease among women<sup>(9)</sup>. During pregnancy, triglyceride, low-density lipoprotein (LDL) and total cholesterol levels rise; these metabolic changes accommodate the growing foetus and aid in preparation for lactation. Maternal hypertriglyceridemia benefits the foetus by assisting in the transfer of essential fatty acids and can be quickly converted into ketone bodies for use by the foetus during the state of maternal fasting. Lactation serves as physiologic excretion route for cholesterol because large amounts of it gets secreted in milk as lipids, as they mobilise for milk synthesis thus reversing the deranged lipid metabolism and returning to normal levels after lactation ends<sup>(10)</sup>. A trial conducted by Sheeva Rajaei et.al<sup>(11)</sup> also concluded that women who breastfeed  $\geq 5$  months in at least one pregnancy had decreased risk of coronary artery disease(CAD) later in their life, Alison M. STUEBE et.al.<sup>(12)</sup> too discovered that long duration of lactation was associated with a reduced risk of cardiac diseases. Studies done by researchers also concluded that exclusive breastfeeding for 6months or total breastfeeding for >12months was associated with lower risk of developing hypertension later in life as compared with no breastfeeding or breastfeeding for <6months after adjusting for confounders<sup>(13)</sup>. Breastfeeding is also considered a protective method against the development of atherosclerosis, as shorter lactation duration

is associated with subclinical atherosclerosis as measured by carotid intima media thickness<sup>(14)</sup>. Similar studies done by other researchers also concluded that breastfeeding has a protective role against hypertension and CVDs<sup>(15), (16), (17)</sup>.

### **Breastfeeding and Obesity:**

During pregnancy, women tend to gain weight because of childbearing that can lead to enlargement of visceral fat depots and accumulation of adipose tissue in the visceral compartments. Women's energy demands during pregnancy increase to support the development and growth of the foetus, placenta, uterine enlargement and mammary glands by storing nutrients and energy needed for milk production, lactation and an increase in blood volume. Excessive energy intake to meet needs during this period may increase the body's fatty tissue, making it difficult to return to pre-pregnancy weight and maintain normal body mass for longer period of time<sup>(18)</sup>.

Some mechanisms to explain the links between breastfeeding and obesity-related diseases are Firstly, Maternal metabolism, e.g.: fat accumulation and insulin resistance, which can be reversed by breastfeeding after pregnancy<sup>(8)</sup> secondly, breastfeeding stimulates oxytocin release, which is important in lowering the risk of obesity and thirdly, ghrelin and the protein peptide YY, a gut-secreted peptide hormone that regulates appetite and is linked to breastfeeding that can help to lower the risk of these diseases<sup>(19)</sup>.

McClure et al.<sup>(20)</sup> found that women with 7 years of postpartum, the amount of visceral fat was higher in those who breastfed for <3months compared to those who breastfed longer. Bobrow et al.<sup>(21)</sup> also concluded that postmenopausal women who had breastfed had a significantly lower BMI than those who had never breastfed. Breastfeeding also has a significant impact on waist circumference as breastfeeding for >6months was significantly associated with a smaller waist circumference after a decade of follow-up<sup>(22)</sup>. Interestingly, on contrary

Emily Oken and colleagues<sup>(23)</sup> concluded that a longer lactation period did not result in any reduction in fatty tissues. Whereas studies have also concluded that parity increases the risk of obesity in women, and breastfeeding for an extended period of time has the opposite effect, resulting in lower body mass among women<sup>(24)</sup>. Muna J.Tahir and colleagues<sup>(25)</sup> observed that exclusive breastfeeding for prolonged periods is associated with lower pregnancy weight retention during postpartum period, whereas Marco Fabio Mastroeni et.al<sup>(26)</sup> concluded that that breast-feeding for a longer duration has a protective effect on the risk of excess body weight concurrently in both mother and their children.

### **Breastfeeding and Cancer:**

Cancer is considered as leading causes of death in women worldwide, with breast cancer being the most common followed by cervical carcinoma in India and other developing countries. Studies have shown that primary advantage of breastfeeding on maternal health is a lower risk of developing breast cancer. A case-control study conducted in India by Babita et.al<sup>(27)</sup> discovered that reproductive factors play an important role in the aetiology of breast cancer among Indian women. Significant reproductive predictors including age at marriage, at first childbirth, parity and breastfeeding whereas an extended period of breastfeeding and an increased number of live births are protective for breast cancer. Vendhan Gajalakshmi et.al<sup>(28)</sup> concluded that there was decreased risk for breast cancer in premenopausal women with long duration of breastfeeding. D Huo et.al.<sup>(29)</sup> also concluded that breastfeeding reduce the risk of breast cancer by 7% every 12months. Contrarily, Salma Butt et al<sup>(30)</sup> concluded that breastfeeding duration was not associated with breast cancer risk and no association was seen between breast cancer subgroups.

In addition to breast cancer, scientific evidences also support the protective influence of breastfeeding over ovarian and

endometrial cancer. Da-Peng Li and colleagues<sup>(31)</sup> concluded that breastfeeding had a duration-dependent protective effect against ovarian cancer. Women who breastfed for a longer period had stronger protective benefits, with a risk reduction of ovarian cancer by 30% among who breastfed. Breastfeeding also protects against Epithelial Ovarian Cancer (EOC) by suppressing ovulation, lowering gonadotropin levels and altering the hormonal milieu; According to a study conducted by Francesmary MODUGNO and others<sup>(32)</sup>, breastfeeding for 3 months protects against EOC. Longer cumulative duration, more frequency and younger age at first breastfeeding episode all increase protection.

Endometrial cancer is the most common female genital tract cancer and fourth commonest cancer in women. Researchers hypothesize that estrogen stimulation of endometrium is the major risk factor for endometrial cancer; thus, its risk increases in women with high levels of plasma oestrogen that are unopposed by progesterone. Since oestrogen is opposed by progesterone during breastfeeding thus breastfeeding also lowers risk of endometrial cancer. In their meta-analysis, Lianlian Wang and colleagues<sup>(33)</sup> concluded that longer duration of breastfeeding was inversely associated with risk of endometrial cancer, and dose-response relationship was found.

Table presents the summarized findings of the reviewed articles showing the protective effects of breastfeeding on maternal lifestyle disorders.

S.No	Title of the study	Author	Year of Study	Type Of Study	Age (Years)	Lifestyle disorder	Sample Size	Findings
1.	Breastfeeding and maternal health outcomes: a systematic review and meta-analysis	Ranadip Chowdhury et.al. India	2015	Systematic review and meta-analysis	N/A	Cancer and diabetes	163 Articles	Women who ever breastfed and who breastfed for longer duration have a lower risk of breast and ovarian carcinoma and also type 2 diabetes mellitus. They found no evidence of association between breastfeeding and maternal depression or postpartum weight change.
2.	Association between Breastfeeding and Prevalence of Diabetes in Korean Parous Women: The Korea National Health and Nutrition Examination Survey, 2010-2014	Ha-Nui Kim et.al. Korea.	2018	Cross-Sectional Study	20-49yrs	Diabetes	5,448	Prevalence of diabetes mellitus was reduced in women who had breastfed compared to those who did not. However, the association between duration of breastfeeding and the prevalence of diabetes mellitus could not be found.
3.	Associations between	Ga Eun Nam et.al.	2018	Cross-sectional study	Parous women	Diabetes	9,960	Breastfeeding was inversely

	Breastfeeding and Type 2 Diabetes Mellitus and Glycemic Control in Parous Women: A Nationwide, Population-Based Study	South Korea.						associated with T2DM and it was associated with good glycemic control in parous women with T2DM, independent of potential confounding factors.
4.	Lactation and maternal risk of diabetes: Evidence from the Mexican Teachers' Cohort	Mónica Mazariegos et.al. Mexico.	2019	Prospective cohort study	>25yrs	Diabetes	66,573	Mean of 6-12months of lactation per child was associated with lower maternal diabetes incidence. Although maternal diabetes no longer decreased after a mean of $\geq 12$ months of lactation per child.
5.	Association of Maternal Lactation With Diabetes and Hypertension	Rameez RM et.al.	2019	Systematic Review and Meta-analysis	>18yrs	Diabetes	200000	Breastfeeding for >12months was associated with 30% lower risk of diabetes and 13% lower risk of hypertension in mothers after adjusting for confounding variables.
6.	Determinants of Continued Breastfeeding at 12 and 24 Months: Results of an Australian Cohort Study	Jane Scott et.al. Australia.	2019	Cohort study	<25, 25-34 or $\geq 35$ yrs	Diabetes	2147	Breastfeeding for 12months and beyond helps in reducing the risk of breast cancer, ovarian cancer, type 2 diabetes, hypertension, metabolic syndrome, cardiovascular diseases.
7.	Breastfeeding Duration and Development of Dysglycemia in Women Who Had Gestational Diabetes Mellitus: Evidence from the GUSTO Cohort Study	Sumali S. Hewage et.al. Singapore.	2021	Prospective Cohort Study	18-46yrs	Diabetes	116	There is increasing inverse association between breastfeeding and diabetes risk, which is strongest in women who breastfed for at least 6months and less in those who breastfed for a shorter duration.
8.	The BLiNG study	Sarah J Melov et.al	2022	Pilot cohort study with	Pregnant Women	Diabetes	210	The risk of recurrent

	Breastfeeding length and intensity in gestational diabetes and metabolic effects in a subsequent pregnancy: A cohort study	Australia.		retrospective and prospective data				gestational diabetes was reduced by both increased duration and intensity of breastfeeding.
9.	Duration of lactation and incidence of myocardial infarction in middle-to-late adulthood	Alison M. STUEBE et.al. USA	2008	Prospective cohort study	30-55yrs	CVD	89,326	It was concluded that long duration of lactation was associated with a reduced risk of coronary heart disease.
10.	Duration of Lactation and Incidence of Maternal Hypertension: A Longitudinal Cohort Study	Alison M. Stuebe et.al. USA	2011	Prospective cohort study	25 -42yrs	Hypertension	55,636	Women who never or curtailed lactation is associated with increased incident of hypertension, independent of BMI and there was an increased risk of hypertension among women who breastfed each child for <9months compared with women who breastfed each child for ≥12months.
11.	Lactation Duration and Midlife Atherosclerosis	Erica P. Gunderson et.al. USA	2016	Prospective cohort study	18-30yrs	CVD	846	Lactation helps in lowering cardiovascular disease risk in women as lactation duration have inverse association with common carotid intima-media thickness and shorter lactation duration is associated with subclinical atherosclerosis.
12.	Cumulative Lactation and Onset of Hypertension in African-American Women	Ellen M Chetwynd et.al. USA	2017	Case-control study	40-65yrs	Hypertension	59,001	Breastfeeding was associated with reduced risk of hypertension in women aged 40-49years and it was strongest among women who breastfed for ≥24months. No association was observed for women whose

									hypertension was diagnosed at age 50–65years.
13.	Breastfeeding and maternal cardiovascular risk factors and outcomes: A systematic review	Binh Nguyen et.al	2017	Systematic review	N/A	CVD	N/A		It was concluded that breastfeeding is associated with cardiovascular health benefits.
14.	Breastfeeding Duration and the Risk of Coronary Artery Disease	Sheeva Rajaei et.al. USA	2019	Case-control study	40-65yrs	CVD	643		Parous women who breastfeed $\geq 5$ months in at least one pregnancy had decreased risk of CAD later in life, whereas parous women who either never breastfed or discontinued breastfeeding early seem to be at increased risk.
15.	Breastfeeding Is Associated With a Reduced Maternal Cardiovascular Risk: Systematic Review and Meta-Analysis	Tschiderer L. et.al.	2022	Systematic Review and Meta-Analysis Of 8 prospective studies	Parous women	CVD	1192700		There was reduced maternal CVD risk in women who had breastfed compared with women who had never breastfed during their lifetime.
16.	Maternal Visceral Adiposity by Consistency of Lactation	Candace K. McClure. et.al. USA	2012	Cross-Sectional Study	Women who were on average 7years postpartum	Obesity	89		At 7years of postpartum, visceral fat depots are significantly greater among mothers who lactated for <3months after the birth of each of their children.
17.	Persistent effects of women's parity and breastfeeding patterns on their body mass index: results from the Million Women Study	K L Bobrow. et.al. UK	2012	Cross-Sectional Study	50-64yrs	Obesity	740628		Breastfeeding was associated with long-term reduction in BMI among postmenopausal women. Average BMI decreased by $0.22 \text{ kg m}^{-2}$ , for every 6months that they breastfed, equivalent to about a 1% reduction in their average BMI.
18.	Effects of an intervention to promote breastfeeding on maternal adiposity and	Emily Oken. et.al. Europe	2013	Randomized controlled trial	25 $\pm$ 5yrs	Obesity	11,867		Longer lactation period did not result in any significant reduction in fatty tissue



	blood pressure at 11.5yrs postpartum: results from the Promotion of Breastfeeding Intervention Trial, a cluster-randomized controlled trial							more than 11years postpartum.
19.	Breast-feeding duration for the prevention of excess body weight of mother-child pairs concurrently: a 2-years cohort study	Marco Fabio Mastroeni. et.al. Brazil	2017	Prospective cohort study	>18yrs	Obesity	435	Breastfeeding for a longer duration has a protective effect on the risk of excess body weight concurrently in both mothers and their children two years after birth.
20.	Breastfeeding Greater Than 6 Months Is Associated with Smaller Maternal Waist Circumference Up to One Decade After Delivery	Gabrielle G. Snyder. et.al. USA	2019	Prospective cohort study	7-15yrs after delivery	Obesity	676	Women who breastfed >6months had less central adiposity 7-15years later compared to women who breastfed <6months, accounting for confounders.
21.	Association of Full Breastfeeding Duration with Postpartum Weight Retention in a Cohort of Predominantly Breastfeeding Women	Muna J. Tahir. et.al. Oklahoma City	2019	Prospective cohort study	21-45yrs	Obesity	370	Exclusive breastfeeding for at least 3months is associated with significantly less pregnancy weight retention during postpartum period.
22.	Breastfeeding history and the risk of overweight and obesity in middle-aged women	Elzbieta Cieřla. et.al. Poland	2021	Cross Sectional Study	55.5±5.3yrs	Obesity	8725	Breastfeeding may have long-term effect on the risk of excessive weight and abdominal obesity in women.
23.	Breastfeeding and breast cancer risk in India: A multicenter case-control study	Vendhan Gajalakshmi et.al. India	2009	Case-control study	Mean age for cases was 40years in premenopausal women and 55years in postmenopausal women	Cancer	1,866 cases and 1,873 controls	There's decreased risk for breast cancer in premenopausal women with long duration of breastfeeding.
24.	Parity and breastfeeding are protective against breast cancer in Nigerian women	D Huo et.al. Nigeria	2008	Case-control study	>18yrs	Cancer	1388	Breast cancer risk decreased by 7% for every 12months of breastfeeding.
25.	Breastfeeding Reduces Breast Cancer Risk: A Case-Control	Babita et.al. India	2014	Case-Control Study	25-78yrs	Cancer	128	Breastfeeding significantly helps in reducing breast

	Study in North India							cancer. Association of breast cancer was found with caste, age at marriage, first pregnancy, number of live births and lifetime duration of breastfeeding.
26.	Breastfeeding in relation to risk of different breast cancer characteristics	Salma Butt. et.al.	2014	Prospective cohort study	>44yrs	Cancer	14092	Breastfeeding duration was not associated with breast cancer risk and no strong results were seen with regard to breast cancer subgroups.
27.	Breastfeeding and Ovarian Cancer Risk: a Systematic Review and Meta-analysis of 40 Epidemiological Studies	Da-Peng Li. et.al	2014	Systematic Review and Meta-analysis	N/A	Cancer	40 Studies	Women who had breastfed have decreased risk of ovarian cancer by 30% compared to women who did not, Furthermore protective effect of breastfeeding from ovarian cancer occurs in a duration-dependent manner.
28.	Association between Breastfeeding and Endometrial Cancer Risk: Evidence from a Systematic Review and Meta-Analysis	Lianlian Wang. et.al.	2015	Systematic Review and Meta-Analysis	N/A	Cancer	14 Articles	Breastfeeding for longer duration, was inversely associated with risk of endometrial cancer. Dose-response analysis indicated that the risk reduced in endometrial cancer estimated is 2% for every one month increase in the duration of breastfeeding.
29.	Breastfeeding factors and risk of epithelial ovarian cancer	Francesmary MODUGNO.et.al . USA	2019	Case-control study	<25,25-29,30+yrs	Cancer	689 cases, 1572 controls	Breastfeeding for ≥3months protects against EOC. Although this protection decreases over time, it persists for more than 30years.

## DISCUSSION

The goal of this review was to systematically examine the effects of breastfeeding over maternal lifestyle disorders. Thirty-six studies were considered and were analysed based on the incidences of lifestyle disorders such as diabetes, CVD, cancer, obesity and breastfeeding. The study findings revealed a significant, dose-dependent inverse relationship between lactation and diabetes, cardiovascular disease- lipid levels, hypertension, obesity and cancer than non-breastfeeding mothers. But still the breastfeeding ratio remains low and the reported barriers include (i) lack of self-conviction about exclusive breastfeeding among mothers (ii) various socio-cultural beliefs and norms (iii) poor family and social support (iv) Lactation problems (v) Employment and child care (vii) barriers related to health services. There is a need to address these factors and comprehend the interaction of various demographic, educational, socioeconomic, biological and care-seeking factors that are responsible for disparity and high burden of non or inadequate breastfeeding practice. Our study findings suggests that breastfeeding influences maternal lifestyle disorders and leads us to assume that breastfeeding can help to protect women from the occurrence of these diseases.

## CONCLUSION

Breast feeding, according to the study's findings, protects against maternal lifestyle disorders. As a result, women should be encouraged and made aware of its beneficial impact, and steps should be taken to ensure that they exclusively breastfeed their child for at least 6 months, and the following suggestions should be taken into account to improve the statistics of breastfeeding.

## Recommendations

The study discovered that there are enormous health benefits over maternal health simply by initiation and duration of breastfeeding, appropriate guidance and

counselling of women during their ANC and post-natal visits and their awareness regarding the government of India programmes such as “Mothers Absolute Affection” (MAA), “Breastfeeding Promotion Network Of India” (BPNI).

To address the barriers and track compliance, health professionals must be trained in counselling techniques and be aware of the issues. Governments must take steps to persuade pregnant women, their families, healthcare professionals, and policymakers of the importance and benefits of breastfeeding. These initiatives will help to sensitise and improve women's lactation periods while raising awareness about the various effects of breastfeeding on maternal health. Accountability to government, health facilities and communities are usually hampered by lack of awareness, insufficient counselling, maternal workload and lack of independent decision making. The health workers should be trained to counsel mothers and their family members about the eradication of local beliefs, and ASHAs, ANMs and mothers should be followed up on their visits by instilling open-ended questions; they should be made aware of the outcomes that can be faced improper breast-feeding. Maternity leave of at least 6months should be implemented in government and private forums, special breastfeeding rooms should be built in densely populated public areas so that breastfeeding can be done without hesitation and the advertising sector should be involved with personalities who have a large influence over mass population decision making for advertisements or short films.

All of these steps will help to enable the community and increase the percentage of breastfeeding mothers in the country and around the world.

## *Declaration by Authors*

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