



Editorial

Is There Endometriosis Effect on Economic Burden?

Sutrisno, MD PhD (OG) REI* 

Department of Obstetrics and Gynecology/ Magister of Midwifery, Faculty of Medicine, Universitas Brawijaya/ Saiful Anwar General Hospital, Malang, East Java, Indonesia

*CORRESPONDING AUTHOR

Sutrisno Sutrisno

snoispogk@gmail.com

Department of Obstetrics and Gynaecology/ Magister of Midwifery, Faculty of Medicine, Universitas Brawijaya/ Saiful Anwar General Hospital, Malang, East Java, Indonesia



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Endometriosis is a chronic inflammation with a specific characteristic being the appearance of endometrial-like tissue outside the uterus. Endometriosis affects 190 million women giving birth worldwide. This condition is a chronic, inflammatory, and gynecological disorder characterized by the presence of endometrial-like tissue outside the uterus, which is closely associated with complaints of severe pain with a greater risk of experiencing infertility, fatigue, pain in several areas of the body, and various other comorbidities. Pain is the most prominent symptom, and other symptoms include chronic pelvic pain, severe pain during menstruation and sexual intercourse, as well as pain and difficulty when defecating and urinating. Currently, in general, the main therapy for this disease is the removal of endometriosis via laparoscopy followed by three to six months of hormonal therapy, but patients are still required to undergo outpatient treatment or longer follow-up for treatment of persistent pain. Even after treatment is completed, 50% of patients will experience recurrence after a period of more than 5 years post-treatment [1,2,3].

Symptoms of endometriosis are usually non-specific and can be found to be similar to symptoms of other gynecological and even gastrointestinal disorders. A definitive diagnosis can only be obtained by histological examination of the tissue, so making a diagnosis is very challenging. Often, there is a delay in starting therapy because the diagnosis is delayed for years due to non-specific symptoms [3].

The nature of the disease, enigmatic and needs more cost at every step, stimulate the economic burden in managing endometriosis. The important variable that has a significant role in the economic burden of endometriosis is the recurring nature of this condition, even up to 40-45%. Various studies also analyze a special therapy to prevent recurrence after surgical therapy [4].

The choice of therapy depends on the primary goal, whether pain management or fertility-related problems. Self-management depends on the severity of endometriosis and age factors. In patients with fertility expectations, the therapy undertaken includes pharmacological therapy such as non-steroidal anti-inflammatories, oral contraceptives, progestins, danazol, and GnRH agonists, as well as interventional therapy such as laparoscopic removal for endometriotic lesions and laparotomy. Meanwhile, in patients where fertility is not a primary concern, as well as in patients with severe and recurrent endometriosis, hysterectomy is often an option [5].

My concern is whether endometriosis is having significant economic burdens, both direct and indirect costs?. I selected online articles using PRISMA and obtained 122 articles, 4 articles being deleted because of no full text, 8 articles being deleted because of duplication, 17 articles being deleted because of the age of articles more than 10 years, 80 articles being deleted because of not fully relevant with main topics, 4 articles being deleted because of the burden not specific in the economic aspect, and 9 articles are the most perfect choice related with the main topics [6].

Based on the results of the 9 studies collected, all of them stated similar results that the condition of endometriosis imposes a significant socioeconomic burden on patients, both directly and indirectly. The direct economic burden is related to medical costs, both from financing payment reports and health insurance records. This is stated because endometriosis has a high tendency for recurrence, and repeated operations and long-term pharmacological therapy can be carried out, especially regarding the chronic pain suffered. Meanwhile, the economic burden is not directly related to reduced productivity. Frequent absences from work reduce work experience and requests for leave.

Based on the following 9 journals, all results show similar conclusions, with a total sample of 215,125 women of reproductive age who complained of chronic pelvic pain and were declared to have endometrium from various examination results. Of the 9 journals, there are 4 journals with case-control research and others without comparison. The distribution of the number of samples is quite large, with the largest group reaching 113,506 samples. All journals obtained implemented similar actions or data collection in the form of questionnaires or secondary data related to financing and productivity calculations.

In conclusion, endometriosis is a chronic disease experienced by women mostly of productive age, which affects the quality of life, fertility, and even direct economic burdens in the form of recurring and long-term health expenses as well as indirect economic burdens in the form of productivity, many absences from work, and excessive leave. Often due to the treatment process. Based on several journals with similar discussions show significant results in the influence of endometriosis on economic burden.

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Based on the 9 journals that have been selected, PICOT eligibility criteria and journal strength have been determined according to the inclusion criteria.

Table 1. PICOT criteria

No	Title	Population	Exposure	Comparison	Result	Time
1	Healthcare utilization and costs in women diagnosed with endometriosis before and after diagnosis: A longitudinal analysis of claims databases [7]	37,570 Women with a diagnosis of endometriosis	No special treatment. Survey results obtained from Truven Health MarketScan claims database	37,570 Female patients without endometriosis	Provides a significant economic burden	2015
2	The association of endometriosis with work ability and work-life participation in the late forties and lifelong disability retirement up till age 52: A Northern Finland Birth Cohort 1966 study [8]	348 women with a diagnosis of endometriosis were drawn from the Care Register of children born in Finland	No special treatment. Survey results were obtained from the Work Ability Index Score questionnaire and the Finnish Social Insurance Institution	3,487 Female patients without endometriosis	Endometriosis significantly affects indirect economic problems, including work productivity and total length of absence	2021
3	Real-world Evaluation of Direct and Indirect Economic Burden Among Endometriosis Patients in the United States [9]	113,506 Women aged 18-49 years with endometriosis	No special treatment. Survey results obtained from Truven Health MarketScan claims database	927,599 Female patients without endometriosis	Endometriosis patients incur higher direct and indirect costs than non-endometriosis patients	2018
4	Economic burden of deep infiltrating endometriosis of the bowel and the bladder in Germany: The statutory health insurance perspective [10]	825 women diagnosed with DIE with a history of hospitalization and surgery	There is no specific exposure; data is obtained from billing and therapy history (secondary data)	There is no comparison	Direct costs in the period after surgery are the highest cost index, but according to analysis both before and after the procedure, DIE conditions provide a significant economic burden	2016
5	The influence of endometriosis-related symptoms on work life and work ability: A study of Danish endometriosis patients in employment [11]	610 women with endometriosis	No specific exposure, population groups filled out the electronic survey	751 women without endometriosis	Data shows that endometriosis imposes a significant socioeconomic burden	2013
6	The impact of high-risk and chronic opioid use among commercially insured endometriosis patients on healthcare resource utilization and costs in the United States [12]	61,019 Women aged 18-49 years with endometriosis	There is no special report; data is obtained from treatment history and history of drug prescriptions and financing	There is no comparison	Statistical analysis shows that endometriosis causes a higher cost burden	2020
7	Healthcare Consumption and Cost Estimates Concerning Swedish Women with Endometriosis [13]	431 Women with endometriosis	Fill out the questionnaire	There is no comparison	Endometriosis has substantial negative effects and is the highest source of health expenditure	2020

No	Title	Population	Exposure	Comparison	Result	Time
8	Allied health and complementary therapy usage in Australian women with chronic pelvic pain: a cross-sectional study [14]	409 Women aged 18-45 years with complaints of chronic pelvic pain	Fill out the questionnaire from the WERF EndoCost tool	There is no comparison	Women with chronic pelvic pain tend to incur more health costs due to the tendency to seek additional treatment. In the survey results, 83% of them were diagnosed with endometriosis.	2022
9	The cost of illness and economic burden of endometriosis and chronic pelvic pain in Australia: A national online survey [15]	407 Women aged 18-45 years living in Australia	Fill out a questionnaire administered by SurveyMonkey	There is no comparison	Decreased productivity imposes an economic burden and indirect costs on patients with endometriosis	2019