SYSTEMATIC REVIEW

THE EFFECTS OF MENSTRUAL CYCLE AND BODY MASS INDEX (BMI) TO THE INCIDENCE OF POLYCYSTIC OVARY SYNDROME (PCOS) ON FERTILE AGED WOMEN

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ABSTRACT

Background: The incidence of Polycystic Ovary Syndrome (PCOS) had been being reproductive health problems globally. The PCOS prevalence was still high, with the number of the incidence Polycystic Ovary Syndrome (PCOS) increased per year, in 2015 4-18% increased to 6-21% in 2016, it was regardless of the risk factor, the trigger or the booster. There is quite a lot of research on the topic of the menstrual cycle and BMI with the incidence of Polycystic Ovary Syndrome (PCOS). Therefore, it needed conclusions from various available researches by using systematic review. **Purpose**: Knowing the relationship of the effect of menstrual cycle and Body Mass Index (BMI) to the incidence of Polycystic Ovary Syndrome (PCOS) on fertile aged women. **Methods**: This research used systematic review through searching health research database such as Pubmed, Google Scholar, BMC, and Springerlink with keywords menstrual cycle, BMI, and PCOS. Literature research was limited to last five years (2015-2020). **Results:** Menstrual disorders or oligomenorea have 2,8 bigger risk to the maturation of the ovarian follicles on PCO women. There was a strong relationship between the increases of BMI to the incidence of PCOS, especially women with overweight or obesity. Overweight affected 2,27 to the high incident of PCOS. **Conclusion:** Fertile aged women with menstrual disorders had more risk of Polycystic Ovary Syndrome (PCOS). As same as fertile aged women with overweight or obesity had more risk of Polycystic Ovary Syndrome (PCOS).

Keywords: menstrual cycle, BMI, PCOS, fertile aged women

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SYSTEMATIC REVIEW

PENGARUH SIKLUS MENSTRUASI DAN INDEKS MASSA TUBUH (IMT) TERHADAP KEJADIAN *POLYCYSTIC OVARY SYNDROME* (PCOS) PADA WANITA USIA SUBUR

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ABSTRAK

Latar Belakang: Kejadian *Polycystic Ovary Syndrome* (PCOS) masih menjadi masalah kesehatan reproduksi secara global. Prevalensi PCOS masih tinggi, dengan angka kejadian *Polycystic Ovary Syndrome* (PCOS) yang disebutkan semakin tahun makin bertambah, tahun 2015 4-18% menjadi 6-21% pada tahun 2016, hal tersebut tidak lepas dari faktor risiko, pencetus atau pendorong. Ada cukup banyak penelitian tentang topik siklus menstruasi dan BMI dengan kejadian *Polycystic Ovary Syndrome* (PCOS). Maka dibutuhkan suatu kesimpulan dari berbagai penelitian yang sudah ada dengan menggunakan *systematic review*. **Tujuan:** untuk mengetahui pengaruh siklus menstruasi dan Indeks Massa Tubuh (IMT) terhadap kejadian *Polycystic Ovary Syndrome* (PCOS) pada wanita usia subur. **Metode:** Penelitian ini menggunakan *Systematic Review* melalui penelusuran database penelitian kesehatan seperti Pubmed, google scholar, BMC dan Springerlink dengan kata kunci *menstrual cycle*, BMI and PCOS. Pencarian literatur berbatas waktu 5 tahun terakhir (2015-2020). **Hasil:** Gangguan menstruasi atau oligomenorea berisiko 2,8 kali terhadap gangguan pematangan folikel ovarium pada wanita PCO. Siklus menstruasi 26-31 hari berisiko 2 kali lipat pada usia 14-19 tahun. Terdapat korelasi kuat antara peningkatan IMT dengan kejadian PCOS, terutama dengan status kelebihan berat badan atau obesitas. Kelebihan berat badan berpengaruh 2,27 terhadap tingginya kejadian PCOS. **Kesimpulan:** Wanita usia subur dengan gangguan siklus menstruasi lebih berisiko terkena *Polycystic Ovary Syndrome* (PCOS). Dan wanita usia subur dengan kelebihan berat badan atau obesitas lebih berisiko terkena *Polycystic Ovary Syndrome* (PCOS).

Kata Kunci: siklus menstruasi, IMT, PCOS, wanita usia subur