

Effectiveness of the Maternal Mentoring Program since Preconception Period on the Changes in Iron Status of Pregnant Women in Bantul Regency

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ABSTRACT

Background: The Maternal Mortality Rate (MMR) in Indonesia according to the 2015 IDHS data is still very high; 305 per 100,000 live births. It takes serious efforts to reduce MMR to reach the SDGs target by 2030, which is 70 per 100,000 live births. One of the health problems that contribute to MMR is anemia in pregnancy, where the prevalence tends to increase. The mentoring program for mothers that has been carried out since the preconception period is expected to improve the iron status of the mother during pregnancy.

Objective: To determine the effect of maternal mentoring program since preconception period on the changes in iron status of pregnant women in Bantul Regency.

Methods: This study used a Cluster Randomized Control Trial design, involving preconception women in Sedayu, Pleret, and Pajangan Districts, Bantul Regency, which were divided into 61 clusters in the intervention group and 61 clusters in the control group. The intervention group received mentoring while the control group was not provided with mentoring, only usual services from the Public Health Center. The mentoring program consist of preconception nutrition and health education, a reminder to immediately perform antenatal care (ANC), and a reminder to consume Fe tablets. Mentoring was carried out from the preconception period, then followed up to 12 weeks of gestation. A total of 322 samples were recruited at the baseline, of which 205 were later confirmed pregnant and 194 were admitted to the end of the study. Maternal iron status is determined based on hemoglobin and ferritin levels. Statistical test using t-test, chi square, and logistic regression.

Results: The majority of respondents aged 20-35 years, middle education, working, with an average monthly income less than district minimum monthly wage of Bantul Regency 2019. In the group that was provided with mentoring program, had an average first time ANC visit \pm 2 days earlier than in the control group ($p < 0.05$). The intervention group also had a mean time to first consume Fe tablets \pm 1.5 days earlier with a total of \pm 9 tablets more than the control group, but not statistically significant ($p > 0.05$). The mean hemoglobin and ferritin levels were not significantly different between the two treatment groups ($p > 0.05$).

Conclusion: Mentoring since the preconception period can have an effect on the first time ANC visit, but it has not had a significant effect on Fe tablet consumption behavior and iron status.

Keywords: antenatal care, education, hemoglobin, preconception, reminder

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Efektivitas Program Pendampingan Ibu Sejak Masa Prakonsepsi terhadap Perubahan Status Besi Ibu Hamil di Kabupaten Bantul

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INTISARI

Latar Belakang: Angka Kematian Ibu (AKI) di Indonesia menurut data SDKI tahun 2015 masih sangat tinggi, yaitu 305 per 100.000 kelahiran hidup. Perlu upaya serius agar AKI dapat mencapai target SDGs tahun 2030 yaitu 70 per 100.000 kelahiran hidup. Salah satu permasalahan kesehatan yang berkontribusi terhadap AKI adalah anemia dalam kehamilan, dimana prevalensinya cenderung meningkat. Program pendampingan bagi Ibu yang dilakukan sejak masa prakonsepsi diharapkan dapat memperbaiki status besi ibu saat hamil.

Tujuan: Mengetahui pengaruh pendampingan Ibu sejak masa prakonsepsi terhadap status besi Ibu hamil di Kabupaten Bantul.

Metode: Penelitian ini menggunakan rancangan *Cluster Randomized Control Trial*, dengan melibatkan para calon pengantin wanita/WUS prakonsepsi di Kecamatan Sedayu, Pleret, dan Pajangan, Kabupaten Bantul, yang terbagi menjadi 61 klaster pada kelompok intervensi dan 61 klaster pada kelompok kontrol. Kelompok intervensi diberikan pendampingan sementara kelompok kontrol tidak mendapatkan pendampingan, hanya pelayanan standar saja dari Puskesmas. Program pendampingan terdiri dari edukasi gizi dan kesehatan prakonsepsi, *reminder* untuk segera melakukan *antenatal care* (ANC), serta *reminder* konsumsi tablet Fe. Pendampingan dilakukan sejak masa prakonsepsi, kemudian diikuti sampai terkonfirmasi hamil hingga usia kehamilan 12 minggu. Sejumlah 322 sampel direkrut di awal penelitian (106 klaster), dimana 205 diantaranya kemudian terkonfirmasi hamil dan 194 orang dapat mengikuti sampai akhir penelitian. Status besi ibu ditentukan berdasarkan kadar hemoglobin dan ferritin serum. Uji statistik menggunakan t-test, chi square, dan regresi logistik.

Hasil: Mayoritas responden berusia 20-35 tahun, berpendidikan menengah, bekerja, dengan penghasilan rata-rata per bulan <UMR Kabupaten Bantul Tahun 2019. Pada kelompok yang diberikan pendampingan, memiliki rata-rata waktu pertama kali kunjungan ANC ± 2 hari lebih awal dibandingkan pada kelompok kontrol ($p < 0,05$). Kelompok intervensi juga memiliki rata-rata waktu pertama kali mengkonsumsi tablet Fe $\pm 1,5$ hari lebih awal dengan jumlah ± 9 tablet lebih banyak dibandingkan kelompok kontrol, namun tidak signifikan secara statistik ($p > 0,05$). Rata-rata kadar Hb dan ferritin serum juga tidak berbeda bermakna antar kedua kelompok perlakuan ($p > 0,05$).

Kesimpulan: Pendampingan sejak masa prakonsepsi dapat berpengaruh terhadap waktu pertama kali ANC, namun belum signifikan pengaruhnya terhadap perilaku konsumsi tablet Fe dan status besi.

Kata kunci: *antenatal care*, edukasi, hemoglobin, prakonsepsi, *reminder*

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