Estrogen in Psychiatry (OCP and HRT)	
OCP vs HRT	Both oral contraceptive pills (OCPs) and hormone replacement therapy (HRT) contain estrogen along with progestin or a synthetic progestin (eg, levonorgestrel, desogestrel, drospirenone). HRT contains lower doses that supplement a woman's hormones, while OCP has higher doses that shut down the natural hormones.
HRT for depression	Menopausal depression studies used 17β-estradiol (Estraderm) transdermal 0.05 mg/day with additional medroxyprogesterone acetate 10 mg/day for 1 week of every month.
Types of OCP	*Monophasic* formulations deliver 3 weeks of estrogen/progestin at a constant level followed by 1 week of placebo. *Triphasic* formulations deliver varying hormone levels throughout the 4-week cycle that more closely mimic the natural cycle. *Progestin-only* pills are used by women who cannot take estrogen (eg, due to cardiovascular or cancer risks).
OCP most likely to disrupt mood	Progestin formulations, followed by levonorgestrel formulations.
OCP least likely to disrupt mood	Desogestrel formulations (eg, Yasmin, Yaz).
Risk factors for mood disruption on OCP	Adolescents and women in the postpartum period. Women with a history of perinatal depression or dysmenorrhea.
Estrogen-induced drug interactions	Estrogen-containing OCPs lower lamotrigine by 30%–50%. HRT lowers lamotrigine to a lesser extent. Milder interactions with OCPs include lower levels of benzos metabolized through glucuronidation (lorazepam, oxazepam, temazepam), higher levels of other benzos (alprazolam, chlordiazepoxide, diazepam, flurazepam, triazolam), and higher levels of some tricyclic antidepressants.
Drugs that lower OCP and HRT levels	Carbamazepine (very potent), oxcarbazepine, topiramate, the modafinils, and St. John's wort (through CYP3A4 induction). Transdermal and implant formulations partially bypass this hepatic interaction but are still affected by it. If prescribing these psych meds, recommend barrier methods and/or higher estrogen doses.

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