

ABSTRACT

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This study compared acoustic voice measures among women not taking type of oral contraceptive (OCP), and two groups of women taking monophasic and triphasic OCPs.

Three groups of women, 19-28 years old, participated in the study: 10 women not taking any type of OCP (non-OCP), 10 women taking a monophasic OCP, and 10 women taking a triphasic OCP. Voice recordings consisted of three trials of the vowel /æ/ and a connected speech task at a comfortable pitch and loudness levels obtained over two menstrual cycles. Voice recordings were obtained during the luteal phase (days 9-11) and the follicular phase (days 20-22) of the menstrual cycle. Fundamental frequency (F_0), jitter, shimmer, noise-to-harmonic ratio (NHR) and relative loudness level (RLL) were obtained from the vowel task. Speaking fundamental frequency (SFF) and relative loudness level (RLL-pa) were obtained from the connected speech task.

No significant effect of OCP use or type, day of recording, or month of recording was demonstrated for of F_0 /SFF, jitter, shimmer, NHR, or RLL/RLL-pa.

These results showed no significant difference between acoustic measures of voice production. While this conflicts with prior research, it is likely due to the sample's small size and narrow range as well as fluctuations in subjects' hormone levels during data collection. Discussion includes recommendations for future studies that may yield more congruent results.