Acceptability of Exogenous Hormones as a Smoking Cessation Aid for Women of Reproductive Age

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Background

• Though 75% of women who smoke report wanting to quit, the vast majority are unsuccessful with only 3% quitting annually.

• Estrogen has been shown to increase the reward value of nicotine while progesterone has the opposite effect.

• Administration of exogenous progesterone may lower the body’s positive response to nicotine and ease symptoms of withdrawal when attempting to quit smoking.

Goals and Objectives

• The acceptability of exogenous hormone administration as a tool for smoking cessation for women is still unknown.

• To address this gap, we explored the perception of reproductive age women who smoke with respect to willingness to use hormones as a smoking cessation tool.

Methods

Anonymous, cross-sectional online survey conducted using Prolific

Survey questions covered:

- Smoking and cessation history
- Previous hormone use (yes/no)
- Willingness to use various hormone types as a smoking cessation technique (5-point Likert scale)
  - Types (i.e., estrogen, progesterone)
  - Methods (i.e., injectable, oral, patch, insertable)
  - Lengths of effect (i.e., 1 week, 1 month, 3 months)

Eligibility Criteria:

• Self-reported daily cigarette smoker
• 18 – 40 years of age
• Assigned female at birth

Results

• Of the 461 women who responded, n=400 (96%) reported any previous hormone use.
• Average age of those who reported previous hormone use was 30.5 years compared to 27.2 ± 5.7 years for those without history of hormone use (p<0.0001).
• Participants who had used hormones previously were significantly more likely to be willing to use oral hormones than women who had no history of hormone use (OR: 2.03, 95% CI: 1.01, 4.06).

Conclusions

• These data indicate that most women who smoke cigarettes have a history of using hormonal contraceptives and are willing to use hormones as a smoking cessation aid.
• Limitations for this study include self-reported data and limited generalizability.
• Future interventions should explore how to incorporate exogenous hormones as a cessation tool.

Public Health Impact

• Incorporation of exogenous progesterone may increase the effectiveness of smoking cessation interventions and improve the rate of smoking cessation outcomes for women of reproductive age.

References and Additional Information

Scan the QR code to review the full list of references and to see additional information about this project.

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