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[Archived] Smoking Cessation Interventions for Pregnant Women and Mothers of Young Children: Commenting on McBride and Melvin

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Introduction

There are several points of agreement between Melvin's and McBride's papers in this section. First, targeted and intensive smoking cessation programs during the prenatal and postnatal periods are warranted. Second, clinically proven smoking cessation interventions exist, but these should be adapted for the target population and work is needed to ensure that they are systematically applied in clinical settings. Third, some potentially effective intervention avenues have not received sufficient attention; further research on these approaches and more work on developing innovative smoking cessation programs for this population are needed.

Subject

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These papers emphasize the importance of decreasing tobacco use among women before or during pregnancy and preventing relapse during the postnatal period. Quitting smoking before or during pregnancy is important for the health of the baby. It is also an opportunity for a mother to extend quitting temporarily (for the health of the developing fetus) into quitting for life, thus benefiting her own health and that of those around her. There is no doubt that efforts to promote smoking cessation during pregnancy have the potential to be both effective and beneficial. Maternal smoking during pregnancy is associated with significant rates of infant morbidity and mortality, and exposure to environmental tobacco smoke during childhood (a likely prospect if the mother continues smoking) also has serious health effects.[1,2] Many women are heeding messages about these risks, but a significant proportion continues to smoke during pregnancy and relapse rates are high. A recent survey of 115,000 women in the United States indicated that 46% of smokers quit smoking spontaneously immediately before and during pregnancy, but 60% of those who quit relapsed within six months of the birth of their babies.[3]

Problems

The high relapse rate after the birth of the baby or the end of breastfeeding is a key problem noted by the authors. Other problems include the likelihood that women who continue smoking while pregnant are more highly addicted and that they are also likely to have fewer personal and societal resources to help them quit and avoid relapse. Lower quit rates during pregnancy are found among women with lower levels of education and income.[3] These women are more likely to have significant social problems and to receive their health care from sites that have fewer resources.

Research Context

Recent reviews of smoking cessation interventions during pregnancy have suggested that relatively brief counselling complemented with written materials can significantly increase cessation rates.[4,5] Less clear is how even these brief interventions can be incorporated systematically into already stressed health care settings, particularly at a time when the mother is receiving a substantial amount of health information. Health care settings have the advantage of access to and continuing relationships with the target population, but studies in which health care providers have been responsible for smoking cessation counselling as part of normal care have noted serious implementation deficits.[6,7] To wit, few innovative interventions designed to prevent postnatal relapse or to integrate care in the prenatal and postnatal periods have been

described in the research literature.

Key Research Questions

The authors have identified a number of important research questions, including the following:

1. How can pre-conception, pregnancy, and postpartum interventions (including interventions for ETS exposure) be effectively linked? This linkage would presumably increase cessation during pregnancy and discourage postnatal relapse.
2. How can intimate partners and others in a woman's social circle be involved in cessation efforts?
3. How can efficacious interventions be successfully incorporated into obstetric and pediatric care settings?

Recent Research Results

The development of innovative smoking cessation interventions for pregnancy was the focus of the recent Smoke-Free Families initiative funded by the Robert Wood Johnson Foundation. Many of the tested interventions did not significantly increase cessation rates, but there were some positive results. For instance, Donatelle and co-workers found that the use of incentives for cessation and the involvement of a member of the subject’s social network to provide support for cessation could influence quit rates.[8] Another promising direction in the research literature involves an emphasis on ETS exposure. Recent studies have examined the efficacy of counselling to decrease a baby's exposure to ETS after he/she is born. There have been a few demonstrations that counselling can result in decreases in exposure and some suggestions that reductions in smoking for the purpose of decreasing ETS exposure can lead to cessation.[9-11] Other important emerging areas are harm reduction approaches for women who are unable to quit[12] and the use of pharmacological aids for cessation during and after pregnancy.[13] These areas might be important for mothers who are highly addicted or who lack motivation to quit.

Conclusions

The authors stress a need to develop research on innovative interventions and to devote attention to improving the implementation of existing evidence-based guidelines for smoking cessation interventions in clinical settings. Key targets for these efforts should be populations at particular risk for continuing smoking and for relapse: women who are highly addicted and those

in under-served low-income groups. The short duration of pregnancy and the consequences of smoking during this period add a special dimension to questions commonly raised about guideline implementation in clinical settings. How much effort should be spent on motivating precontemplators to consider quitting? Should the responsibility for smoking cessation counselling fall mostly to health care providers or should there be specialized programs? How can women be encouraged to disclose their smoking habits to their health care providers? How can systematic implementation of guidelines be assured? Guideline implementation during pregnancy and in the postnatal period also poses unique questions. What pharmacological aids for smoking cessation are appropriate for this period? How can smoking cessation advice during the prenatal and postpartum periods be most effectively integrated?

Implications for Policy and Services

Further research on innovative programs

Incentives and social support interventions have shown some promise. Further work on these and other innovative methods are needed, especially for low-income women.

Further information on the efficacy and safety of pharmacological aids for smoking cessation

Nicotine replacement appears to pose relatively minimal risk, but additional research is needed regarding the use and safety of all cessation medications with both pregnant and lactating mothers.

Greater integration of smoking cessation and relapse prevention programs during pregnancy and the postnatal period

How can interventions deal with possible reduction in motivation after baby is born? Better linkage is needed between cessation advice from primary care, obstetric, and pediatric providers.

More emphasis on the importance of decreasing ETS exposure in children

Emphasis on ETS exposure could help in integrating pre- and postpartum interventions. Concern about ETS could be an important motivator in encouraging mothers to remain abstinent. Despite a strong policy statement from the American Academy of Pediatrics on the hazards of ETS to children,[14] many pediatricians are reluctant to address ETS exposure with parents.[15]

More resources should be provided for health care facilities serving low-income populations to deal with this problem

Clinical practice guidelines call for extended or augmented interventions for pregnant smokers that exceed minimal advice, wherever possible. However, health care facilities are often strapped for resources. Additional investment is needed, particularly for facilities serving low-income populations. Smoking cessation has been cited as the "gold standard" of preventive interventions,[16] and return on investment for treatment of pregnant smokers is virtually immediate.

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