Socio-economic status among cigarette smoking pregnant women and its associations with smoking cessation outcomes

Julian Saleh and Xiaozhong Wen M.D., Ph.D. (Faculty advisor)
UB Maternal and Child Health Programs, Div. of Behavioral Medicine, Dept. of Pediatrics, Jacobs School of Medicine and Biomedical Sciences

Introduction

- Socio-economic status (SES) is measured by education, occupation, income etc.
- Low SES is a risk factor for smoking cigarettes especially during pregnancy.
- It is presumed that low SES smokers are less willing to quit smoking and may need extra intervention to quit.

Aims:
- To examine the distribution of SES among 73 smoking pregnant women in the UB Pregnancy and Smoking Cessation Study.
- To determine the role of SES in predicting smoking cessation outcomes (abstinence and abstinence).

Methods

- We used a “Four Factor Index of Social Status” by August Hollingshead, based on highest level of education, occupation, and marital status.
- The level of education is coded by a score of 1 through 7 shown below:
  - Less than 7th grade:
    - Junior high school (9th grade): 1
  - Eighth grade or 10th grade:
    - Partial high school (10th or 11th grade): 2
  - High school graduate:
    - Partial college (at least one year) or specialized training: 3
  - Standard college or university graduation:
    - Graduate professional training (graduate degree): 4

Military, police, fire protection personnel, skilled craftsmen, clerical, sales workers

- Occupation is also coded by a number system with the scores ranging from 1 to 9. The index includes a job code census from 1960, where Hollingshead grouped certain jobs under each number shown below:
  - Farm Laborers/Menial Service Workers:
    - Unskilled Workers: 1
  - Machine Operators and Semiskilled Workers:
    - Skilled craftsmen, clerical, sales workers: 2
  - Skilled craftsmen, clerical, sales workers:
    - Machine operators, semiskilled workers: 3
  - Professional and technical:
    - Machine operators, semiskilled workers: 4
  - Higher Executives, Proprietors of Large Businesses:
    - Partners, proprietors: 5
  - Higher Executives, Proprietors of Large Businesses:
    - Higher Executives, Proprietors of Large Businesses: 6

Hollingshead’s suggested range of SES scores for “Social Ladder”:

- Major business and professional: 55-66
- Medium business, minor professional, technical: 40-54
- Skilled craftsmen, clerical, sales workers: 30-39
- Machine operators, semiskilled workers: 20-29
- Unskilled laborers, menial service workers: 8-19

Results (N=73)

- SES scores ranged from 11 to 58 with a mean of 27.0 (SD, 12.4). Most mothers’ SES scores fell below 30.
- The majority of mothers was living with significant other and sharing financial resources.
- The majority of mothers was single.

Most mothers belonged to the lower social strata.

Most mothers had a highest education of some college or vocational training.

Most mothers had low SES scores.

Most of them had less than college education, received public Assistance or welfare.

Most pregnant smokers had low SES scores.

Most pregnant smokers had low SES scores.

Most of them had less than college education, received public Assistance or welfare.

The majority of mothers was single.

Most mothers had a highest education of some college or vocational training.

Most mothers reported a family income of less than $12,000 per year.

Combined Family Income

The majority of mothers had an income less than $12,000 per year.

Most of them had less than college education, received public Assistance or welfare.

Conclusion

- Smoking cessation rates were similarly high across SES score categories: 85.7% for 8-19, 61.5% for 20-29, and 70.0% for 30+ (p=0.538).

- The majority of mothers were enrolled in WIC (Women, Infants, and Children Food and Nutrition Service).

- Smoking cessation rates were similarly high across educational attainment: 50.0% for <high school, 66.7% for high school, and 60.0% for college (p=0.806).

- Most pregnant smokers had low SES scores.
- Most of them had less than college education, received annual family income <$12,000, and received welfare.
- However, smoking cessation rates were similarly high across SES score categories or educational attainment.
- Our results suggested that our smoking cessation intervention could assist low SES pregnant women to achieve high smoking cessation rate similar to their non-low SES counterparts.
- Our research has implication to reducing disparities in smoking-related maternal and child health problems by SES.

Reference


Acknowledgements

- Research Assistants
- Health professionals at recruitment sites
- 42 patients and their families
- Sponsors: NIH CTSA Pilot Fund; UB Dept of Pediatrics; CURCA
- Contact: Xiaozhong Wen, MD, PhD, Assistant Professor (716-829-4811; xiaozhong@buffalo.edu)