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Effect of Environmental Pollution on Pregnant Women and Fetal Outcome in Industrial & Non-Industrial Areas

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Thesis

**For Partial Fulfillment of the Master Degree in Maternal
and Newborn Health Nursing**

By

Nadia Bassuoni Ibrahim El Sharkawy

(B.Sc. Nursing)

Supervisors '

Dr. Shadia A. Hassan

Prof. of Maternal & Newborn Health Nursing

Faculty of Nursing

Cairo University

Dr. Abd El-Maguid Ramzy

Prof. of Obstetrics & Gynecology

Faculty of Medicine

Cairo University

Dr. Ragaa Ali Abd Raboo

Ass. Prof. of Maternal & Newborn Health Nursing

Faculty of Nursing

Cairo University

Faculty of Nursing

Cairo University

2002

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The Author

Nadia Bassuoni

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ABSTRACT

The aim of this study was to examine the effect of environmental pollution on pregnant women and fetal outcome in industrial and non-industrial areas. Two hundred women were recruited. Subjects were classified into four groups from different selected health settings, two study groups, 50 each from two different hospitals (Tanta University hospital & Helwan general hospital) and two retrospective groups: 50 each (record based sample) from also two different Maternal and Child Health centers (Mehaletmarhoom MCH & Helwan first MCH). Data were collected through interviewing sheet, Labor & delivery data sheet, and neonatal assessment sheet for prospective group, while questionnaire sheet was used for retrospective group. Findings revealed that women who live or work in industrial areas had increased blood lead level than who are not live or work in non-industrial areas ($P < 0.001$), also increased newborn blood lead level in industrial group than in non-industrial group ($P = 0.001$). Industrial group was also liable to premature rupture of membrane than other group ($P < 0.05$). Anemia was found more in industrial than non industrial areas related to retrospective and prospective groups ($P < 0.05$). In conclusion environmental pollution had effect on maternal and fetal outcome in industrial areas than non industrial areas.

Tags: Nursing Master's thesis, Human

Key words: Environmental pollution, Lead, Pregnancy, Fetus, Neonate.

The American Psychological Association (APA) style for writing Manuscripts (1994) is adopted for writing this master's thesis.

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LIST OF ABBREVIATIONS

- A S T D R:** Agency for toxic Substances and Disease Registry.
- B Pb:** Blood Lead
- C A P M A S:** Central Agency for Public Mobilization and Statistics.
- E D D:** Expected Date of Delivery.
- E P A:** Environmental Protection Agency.
- G A :** Gestational Age.
- H E P A:** High Efficiency Particulate Vacuum Cleaner.
- M.B.L.:** Maternal Blood Lead.
- LM P:** Last Menstrual Period.
- L B W:** Low Birth Weight.
- P R I D E:** Project in Development and the Environment.
- U C B L:** Umbilical Cord Blood Lead.
- V D T:** Video Display Terminals
- W H O:** World Health Organization.