

***Assessment of Pregnant Women's
knowledge and practices for preventing
swine flu***

Thesis

Submitted for partial fulfillment of the Master
Degree in Maternity & Neonatal Nursing

By

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تقييم

أرسات السیدات الحوامل للوقاية
من انفلونزا الخنازیر

درجة الماجستير فی علوم التمريض
تمريض الام والرضيع

هبة محمود محمد طلبه
معيدة بـ تمريض الام والرضيع
كلية تمريض / جامعة عين شمس

كلية تمريض
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ABSTRACT

Influenza H1N1 2009 (swine flu infection) has been shown to be a major global health problem with World Health Organization (WHO) announcement of phase 6 pandemic level in June, 2009. In Egypt, there is more than 1000 case infected with H1N1. In order to prevent further spread of infection, proper knowledge, and practice regarding the disease are crucial protection against the disease. One group at higher risk of infection is pregnant women some of whom may lack the proper knowledge regarding epidemic diseases. The present study **aimed** to assess knowledge and practices of pregnant women regarding preventive measures of swine flu. A **descriptive** study design was used. The study was conducted at antenatal clinic Ain Shams maternity university Hospital. 280 pregnant women were recruited in the study through using **simple random technique**. **One tool** of data collection was used named pregnant woman's knowledge and practices regarding preventive measures of swine flu questionnaire sheet. The main **result** of the study 71.4 % of the studied women their age ranged between 20- 30 years old, 46.4% of them finished secondary education, 75.7% of them were multigravida. 65.3% of them had incorrect knowledge regarding swine flu. 62.1% of pregnant women not done preventive measures regarding swine flu infection. There is moderate positive correlation between pregnant women knowledge and practices regarding preventive measures against swine flu infection. **Conclusion and recommendations:** The current study concluded that pregnant women had low level of knowledge and poor practice regarding swine flu infection and its preventive measures. Based on the findings, the following is recommended; Provide educational program for pregnant women about swine flu infection and its preventive measures at the antenatal department and through mass media.

Key Words: swine flu infection, pregnant women knowledge

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LIST OF ABBREVIATIONS

BAL	Bronchoalveolar Lavage
CDC	Centers for Disease Control and Prevention
CI	Confidence Interval
COPD	Chronic Obstructive Pulmonary Disease
CRP	C- Reactive Protein
IFA	Immuno fluorescence
FDA	Food and drug administration
FSH	Follicular stimulating hormone
GBS	Guillain Barré Syndrome
GFR	Glomerular filtration rate
H1N1	H1 (Hemagglutinin type 1) and N1 (Neuraminidase type1).
HCG	Human Chorionic Gonadotrophin
LH	Luteinizing hormone
PTH	Parathyroid hormone
RIDTs	Rapid Influenza Diagnostic Tests
RT-PCR	Real-Time
TBG	Thyroxin-binding globulin
Th1	T-helper type I lymphocytes
Th2	T-helper type II lymphocytes
TSH	Thyroid stimulating hormone
VTM	Viral Transport Media

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INTRODUCTION

Pregnancy in the woman's life is a period that poses many new challenges and possible problems. How she responds to these challenges is dependent on her emotional maturity or lack of it. These changes that occur in the pregnant woman's body are caused by several factors. Many of these changes are the result of hormonal influence, some are caused by the growth of the fetus inside the uterus, and some are the result of the pregnant's physical adaptation to the changes that are occurring (*Henderson & Macdonald, 2004*).

Pregnancy alters the immune system, which may cause pregnant women to be more susceptible to infection and may enhance the severity of the illness, thereby increasing mortality rates in this vulnerable population. Pregnant women have been classified as a high-risk group (*Pillitteri & Kyle, 2007*).

Physiological factors during pregnancy in the cardiovascular and respiratory systems, including increased heart rate, stroke volume and oxygen consumption, and decreased lung capacity may also increase the woman's risk factor to infection (*Ricci , 2009*).

Pregnant women who infect with swine flu are four times more likely to develop severe illness that requires hospitalization than other people infected with the virus they were significantly more likely to be hospitalized for a cardiopulmonary event during the influenza season (*Robertson, 2010*).

Many pregnant women will go on to have a typical course of uncomplicated influenza. However, for some pregnant women, illness might progress rapidly, and might be complicated by secondary bacterial infections including pneumonia. Fetal distress associated with severe maternal illness can occur

(*Carlson et al., 2009*). Pregnant women with flu had higher rates of stillbirth, spontaneous abortion, and premature birth. Also, flu comes with fever. Studies have shown that a fever during the first trimester doubles the risk of neural tube defects and may be associated with other adverse outcomes (*Laudi, Busch & Kaisers, 2010*).

Generally, the uses of drug and live-virus vaccines are contraindicated for pregnant women because of theoretical risk of transmission to the fetus. Whether live vaccine or inactivated vaccines are used, vaccination of pregnant women should be considered on the basis of risks versus benefits –i.e., the risk of the vaccination versus the benefits of protection in a particular circumstance so all pregnant women should be immunized with the pandemic (H1N1) 2009 influenza vaccine. This is the most effective measure available to prevent influenza (*Broughton et al., 2009*).

The pregnant women take the highest priority for beginning the treatment as soon as possible if there is influenza-like illness appeared so treatment should not be withheld pending results of testing for influenza, if testing is done. Influenza antiviral chemoprophylaxis recommendations have been updated to be consistent with CDC recommendations for chemoprophylaxis for high risk groups (*CDC, 2009 & Bandaranayake et al., 2010*)

Health care team including Obstetricians and nurse should take anticipatory actions and an effective strategy to minimize the risk to pregnant women of pandemic (H1N1) 2009 influenza, prevent the occurrence of infection or to minimize its effect after it has occurred.” Not every event is preventable, but every event does have a preventable component (*Appuhamy et al., 2009*).

Significance of the study

The pregnant women have an increased risk of severe disease and of dying," and they were hospitalized with swine flu four times as often as the general population. As regards the incidence of swine flu in Egypt, according the Egyptian Ministry of Health report until 7 Feb. 2010 the estimated cases that infected with H1N1 reached to 16127 cases and including 272 of them was died. That number is still holding up as the epidemic grows, but it may change epidemiologists are not quite sure how the disease will spread and mutate over the course of the winter (*Nazario, 2009*).

Worldwide the 2009 H1N1 hospitalization rate was significantly higher among pregnant than nonpregnant women (55.3 compared with 7.7 per 100,000 population) (**WHO, 2010**).

Aim of the study:

To assess knowledge and practices of pregnant women regarding preventive measures of swine flu.

Research question:

- Are pregnant women having knowledge regarding swine flu prevention?
- Are pregnant women applying preventive measures of swine flu?