

# Performance of Health Care Providers regarding Helping Babies Breathe during Neonatal Resuscitation

## **Thesis**

**Submitted for Partial Fulfillment of the Master Degree  
in Pediatric Nursing**

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## List of Abbreviations

<b>Abbr.</b>	<b>Full-term</b>
<b>AAP</b>	: American Academy of Pediatrics
<b>ACOG</b>	: American College of Obstetricians and Gynecologists
<b>AHA</b>	: American Heart Association
<b>BMV</b>	: Ballon Mitral Valvotomy
<b>CRP</b>	: Cardiopulmonary Resuscitation
<b>CO2</b>	: Carbon Dioxide
<b>DCC</b>	: Delayed Cord Clamping
<b>ECG</b>	: Electronic Cardiac
<b>GDA</b>	: Global Development Alliance
<b>HBB</b>	: Helping Babies Breathe
<b>HCPs</b>	: Health Care Providers
<b>HCSPs</b>	: Health Care Service Providers
<b>HIE</b>	: Hypoxic-Ischemic Encephalopathy
<b>HRF</b>	: Hypoxemic Respiratory Failure
<b>IMNCI</b>	: Integrated Management of Neonatal and Childhood Illness
<b>ILCOR</b>	: International Liaison Committee on Resuscitation
<b>KMC</b>	: Kangaroo Mother Care
<b>MAS</b>	: Meconium Aspiration Syndrome

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<b>MDG</b>	: Millennium Development Goal
<b>MSAF</b>	: Meconium-Stained Amniotic Fluid
<b>NICHD</b>	: National Institute of Child Health and Development
<b>NALS</b>	: Neonatal Advanced Life Support
<b>NICU</b>	: Neonatal Intensive Care Unit
<b>NRP</b>	: Neonatal Resuscitation Program
<b>O2</b>	: Oxygen
<b>PBF</b>	: Pulmonary Blood Flow
<b>PC</b>	: Personal Computer
<b>PPHN</b>	: Pulmonary Hypertension of Neonatal
<b>PPV</b>	: Positive-Pressure Ventilation
<b>PVR</b>	: Pulmonary Vascular Resistance
<b>QIC</b>	: Quality Improvement Cycle
<b>QMNCGP</b>	: Queensland Maternity and Neonatal Clinical Guidelines Program
<b>SD</b>	: Standard Deviation
<b>SPSS</b>	: Statistical Package for Social Sciences
<b>UNICEF</b>	: United Nations Children’s Fund
<b>USAD</b>	: United State Agency Development
<b>USAID</b>	: United State Agency for International development
<b>WHO</b>	: World Health Organization

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## Abstract

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**This study aimed to** evaluate the Health care providers (nurses) performance regarding helping babies breathe during neonatal resuscitation. **Research design** descriptive study. **Setting:** The study was conducted at the delivery room of Obstetric and Gynecological Hospital affiliated to Ain Shams University Hospitals. **Subjects:** A purposive sample composed of 50 health care providers (nurses, assistance nurses trainee and nursing staff) who, attended and receive the baby for resuscitation at the previously mentioned setting over a 6 months period regardless of their residence, age and gender. **Tools:** A predesigned questioner sheet to assist health care providers (nurses) knowledge regarding helping baby breath and an observation checklist to assist health care providers (nurses) performance regarding helping babies breathe. **Result:** the study revealed that there was Almost three quarters studied sample had poor score for total knowledge, compared with less than one quarters had average score. Almost less than two thirds of the studied nurse had incompetent performance regarding helping baby breath, There was a positive correlation between total knowledge of the studied nurses and their total performance regarding helping baby breath **Conclusion:** Based on finding of the present study and answering research question, more than three quarters of the studied health care providers (nurses) had poor score level of knowledge regarding helping babies breathe, more than one fifth of the studied health care providers (nurses) had incompetent performance regarding helping baby breath, and there were positive correlation between total knowledge of the studied nurses and their total performance regarding helping babies breathe **Recommendation:** upgrade health care providers' knowledge regarding helping babies breathe through continuous educational program. Enhance health care providers (nurses) practice according to helping babies breathe. Further researches are required involving all health care providers not only nurses about helping babies breathe at different study all over Egypt.

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**Key words:** Health Care Providers, Helping Babies Breathe, Neonatal Resuscitation

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# Introduction

**H**elping Babies Breathe (HBB) is evidence based nursing practices about neonatal resuscitation techniques in resource limited areas. It is an initiative of the American Academy of Pediatrics (AAP) in consultation with the World Health Organization (WHO) and in collaboration with the United States Agency for International Development (USAID) saving newborn lives. To save the children, the National Institute of Child Health and Development (NICHD), and a number of other global health stakeholders (*American Academic of Pediatric [AAP], 2011*).

Helping babies breathe focuses on the Golden Minute when stimulation to breathe and ventilation with a bag and mask can save a life. At least one person skilled in helping a baby breathe should be present at every birth (*American Academic of Pediatric [AAP], 2013*).

Health Care Providers (HCPs) have an important role in helping baby breathe, so that, it is important for Health Care Service Providers (HCSPs) present at a baby's birth to continually assess the situation. There is only one minute before delayed or inappropriate action can result in brain damage or death for the baby. The Golden Minute. evaluated the state of the baby's breathing, need to make a quick decision

on how to proceed and to put the plan into action immediately (*American Heart Associates [AHA], 2013*).

Over the past 20 years, Egypt has made significant progress on maternal and under-five-year child mortality. The under 5 child mortality was reduced by 70% (between 1990 to 2008) and the maternal mortality was reduced by 73% (between 1992 to 2008) Despite this reduction, large disparities in child survival still persist at national level in particular for the neonatal period which was reduced at a slower pace. Currently 9 out of 10 deaths of children under the age of 5 take place before the child's first birthday, and about one half of these deaths occur during the first month of life (**Ministry of Health, and Population, [MOHP] , 2008**):

Neonatal resuscitation saves lives and prevents avoidable morbidity. A skilled birth attendant who can deliver effective newborn resuscitation, and who has the supplies and equipment to do so, should be present at each of the 140 million births that take place around the world each year. Most babies that do not breathe at birth will begin to do so with simple drying and stimulation. For those babies that do not respond to these initial measures, assisted ventilation with a bag-mask is the single most important step in helping babies to breathe. Scaling up neonatal resuscitation training in countries where most newborn deaths occur remains an urgent global health priority (*Gupta et al., 2013*).