MATERNAL MORTALITY AT DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY AIN SHAMS UNIVERSITY HOSPITALS FROM JANUARY 1980 TO DECEMBER 1984

A THESIS

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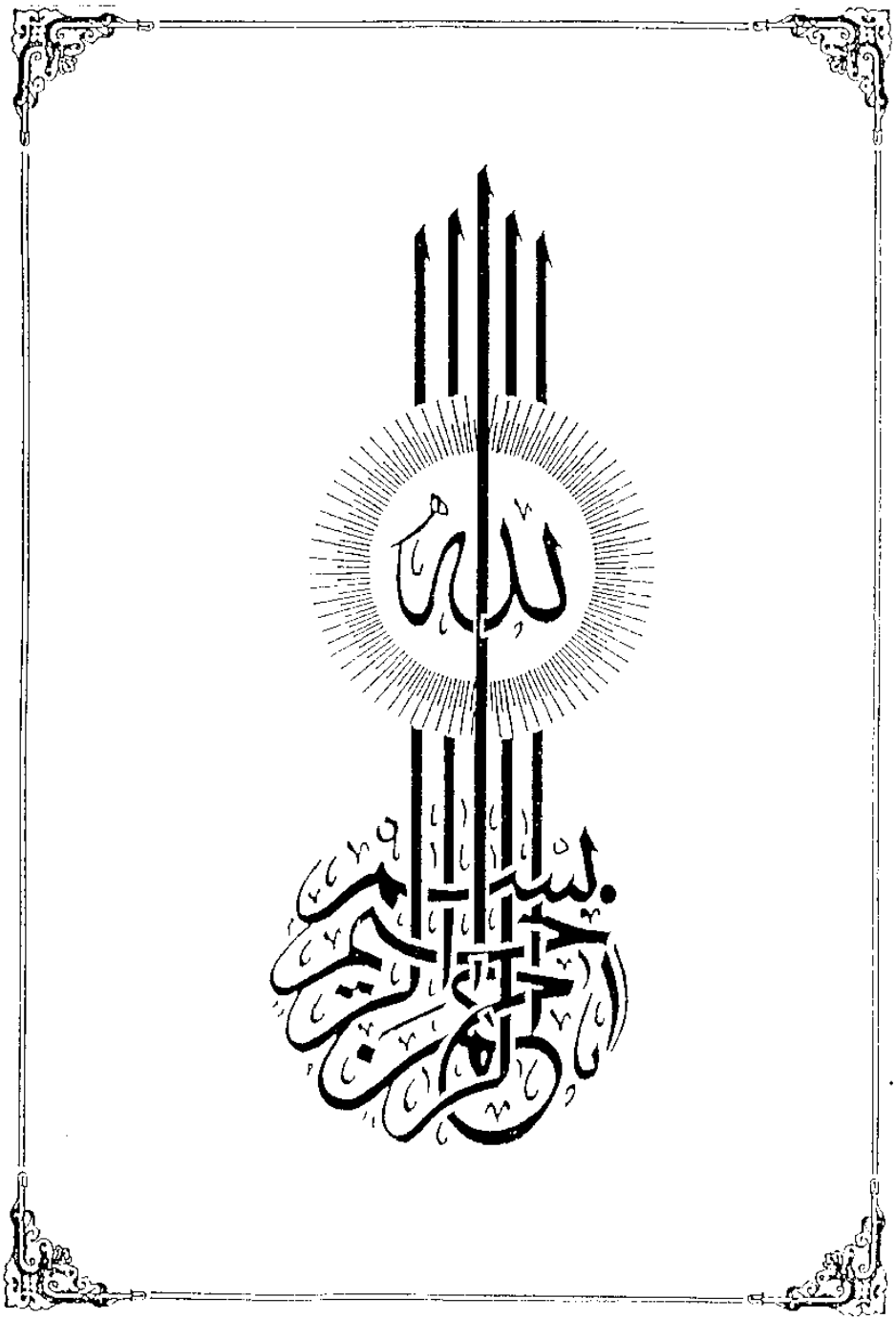
I would like to express my profound gratitude and deep appreciation to Professor Dr. Ahmed Roshdy Ammar , The Head of Department of Obst. & Gyn., Ain Shams University for suggesting the problems and helped me.

I am greatly indebted to Prof. Dr. Mohamed Kareem for his guidance, support and advice to fulfill this review.

I am also grateful to Dr. Abbass Ghazi without whom this work would never have been completed.

I would also like to thank my father for the backing and support he gave me.



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INTRODUCTION

Maternal mortality is an important indicator of standards of health care in different countries In developed countries regular enquiries were made into each maternal death and attempts were made to eliminate all avoidiable factors. With such an approach, maternal mortality rates had been brought down to a neglibible level (Chamberlain, 1981), this due to improvement in maternal care with all its merits including; easy availability of blood transfusion, antibiotic therapy, early control of toxaemia and prompt termination of pregnancy whenever indicated. The picture was different in developing countries where rates were about 10 times higher than those in the developed countries (Rao and Malka, 1977). Unfortunately, most of the developing countries, national statistics are highly inaccurate and the analysis of maternal deaths can only be made on the basis of experience in individual hospitals. Statistics derived from hospital case loads can be misleading (Chalmers, 1980) and this could be true for Egypt, where hospital confinement is not universal. Keeping this in mind,

we had studied the maternal deaths and their cause in the Department of Obstetric and Gynaecology, Ain Shams University hospital, Cairo, Egypt. Throughout five years period : from January 1980 to December 1984 and to compare the results with other countries in order to evaluate our practice.

Definition Of Maternal Mortality

The committee; on maternal mortality of the International Federation of Gynaecologists and Obstetricans (FIGO) recommended in the 9th revision of the International Statistical classification of diseases, injuries and causes of death (WHO, 1977); has defined the maternal deaths as; "The death of a woman while pregnant or within 42 days of termination of prequancy; irrespective of the duration and site of pregnancy, from any causes related to or aggrevated by the pregnancy or its mangement, but not from accidental or incidental causes".

Internal classification of disease adapted 8th (ICDA8th) definition which can be used in the past has an advantage of including deaths, in which the period of survival was longer than 42 days extend to one year (DHSS, 1979).

International classification of disease 9th revision (ICD 9th) include other current condition in the mother (diabetes, cardiovascular disease ..... etc.) that complicated the pregnancy, childbirth , or puerperium but which would have been

coded to specific disease according to (ICDA 8th).

(ICD 9th), includes, deaths from infections and parasitic conditions in mother (Venerel diseases, Tuberculosis .... etc.)that complicated the pregnancy childbirth or puerperum but which would have been coded to specific condition according to ICDA 8th (J.C. Smith et al., 1984).

The Classification Of Maternal Deaths

Maternal mortality has been classified by Committe on Maternal & Child Care of the division of socioeconomic activ ties of the American Medical Association into the following 3 broad groups (Prichard & Macdonald, 1976).

(1) Direct Obstetric deaths : "those resulting from obstetric complication of the pregnancy state; (prequancy, labour & puerperium); from inter-ventions; Omissions; incorrect treatment; or from a chain of events resulting from any of the above".

(2) Indirect Obstetric deaths: are defined as "those resulting from previous existing disease, or disease that developed during pregnancy and which has not due to direct obstetric cause but which was aggrevated by physiologic effect of pregnancy.

(3) Non-releated Obstetric deaths : Death occuring pregnancy or within 42 days of its termination from cause not releated to pregnancy or its complication or mangement.

The Maternal Mortality Rate

The Committee on maternal mortality of the FIGO (1967) has calculated, the maternal mortality rates per 100,000 live births. The live birth, being defined by the FIGO Committee as "the birth of live born infant that weight 500 gm or more; or an estimated duration of 20 weeks pregnancy or more calculated from the first day of the last menstrnal period" (DHSS, 1973).

The number of births is not however the best available dominator for women at risk of dying during pregnancy or childbirth, and in Report on Confidential Enquiries into Maternal deaths in England & Wales 1976-8, the deaths are usually related to the number of maternities. "Maternities are a count of number of mothers who delivered as distinct from the number of babies born"; and hence corrects for twins and other multiple birth (DHSS, 1979).

Coppes & Messer (1976), Pritchard & Macdonald (1976), Calculated maternal mortality per 100,000 live births independently.

Copper and Messer used a new rate in their calculation; the cause specific mortality rate. This represents the number of deaths due to specific causes per 100,000 live births. They found that this new rate is a true measure of fatality a certain complication of pregnancy.

The statistics covering the maternal mortelity rate in the World's were published in the World Health Statistics (WHO) 1982 & 1983 in Table (1).

Table (1): Maternal Mortality rates: Complication of Pergnancy childbirth death rate per 100,000 live births(1980-1981)

Country or area	Rate per 100,000 live birth	
Africa		
Mauritius		108.4
America		
U.A.S.		9.6
Canada		6.4
Barbados		23.8
Chile		73.1
Asia		
Hong Kong	6.0	
Israel	5.4	
Japan	20.4	
Kuwait	7.8	
Syrian Arab Republic	8.0	
Europe		
Engl. & Wales		10.0
Scotland		18.8
Switzland		5.6
Sweden		8.2
Norway		2.0
Germany		20.0
Oceania		
Australia	9.8	
Newzealand	13.9	

Maternal Mortality Rate In Developing & Developed Countries

Maternal mortality is an important indicator of standards of health care in different countries; in developed countries regular enquiries were made into each maternal death and attempts were made to eliminate all avoidable factors. With such an approach, maternal mortality rates had been brought down to negligivle level (Chamberlain, 1981), in England and Wales maternal mortality rates per 1000 total births were 6.5 in 1890, 2.2 in 1940 and 0.14 in 1970 (Tomkinson, 1977).

The picture was different in developing countries where the maternal mortality rates were about 10 times higher than in developed countries (RaO & Malika, 1977). Unfortunately in most of developing countries, national statistics were highly inaccurate and the analysis of maternal deaths can only be made on the basis of experience in the individual hospital (Chalmers, 1980).

The fact of greater maternal in the low

Socio - economic group and those with marrital breakdown also among women who did not attend any form of anteratal, care unit and most of them was unbooking (B.E. Kwast et al., 1985); better examples for this; maternal mortality rates was 5.66 per 1,000 live birth in Addis Ababa hospitals at the period from September 1981 to September 1983. So maternal mortality rates in Addis Ababa hospitals is about 50 to 70 times higher than in Unit Kingdom or Sweden at the same period; also appear maternal mortality rate for women who had received antenatal care was 3.50 per 1,000 (B.E. Kwast, 1985).

Maternal mortality in the University Collage Hospital, Ibadan, Nigeria over a 10 years period (1962-1971), was 8.2 per 1,000 (the maternal mortality rate in Nigeria is simply 26 times the rate in Britain or America in same years). The main cause of deaths in this hospital was sever anaemia in pregnancy and acute hepatic failure due to malaria (O.A. Ojo, 1974).

Maternal mortality rate in South Africa Hospital along a course of 16 years (1964 to 1979) have claimed an overall rate of 52.9 per 100,000 live