Safety of intrauterine device insertion by trained nurse-midwives in the Sudan

F.A. AZIZ (1) and A.A. OSMAN (2)

(1) Department of Obstetrics and Gynecology, Faculty of Medicine, University of Khartoum, Sudan
(2) Directorate of Mother and Child Health/Family Planning, Ministry of Health, Sudan

Abstract

Insertion of intrauterine devices (IUDs) by trained health workers other than physicians is increasing, particularly in developing countries. Twenty nurse-midwives in government service in the Sudan, called health visitors (HVs), were trained to provide intrauterine contraceptives in a research project designed to evaluate the safety of insertion of IUDs by medical personnel who are not physicians. After training, they inserted 763 IUDs. Independent evaluation of 520 clients was conducted by gynecologists who found that only six devices (1.2%) had been incorrectly inserted. Outcomes for clients of the health visitors, with respect to perforations, infections, expulsions, and pregnancies, compared well with those of eight physicians who participated in the study. The research strongly supports the concept of nurse-midwife training for IUD insertion. This would greatly expand the availability of family planning services and would conserve physician time and skills for problem cases.

Introduction

During the 1960s and 1970s, the intrauterine device (IUD) gained acceptance as an effective family planning method, especially among women for whom oral contraception was contraindicated or who preferred a different method. A limiting factor with the IUD was the policy that physicians should perform all insertions, even though there was no legal basis for this requirement. In developing countries, where doctor to patient ratios were low, use of an IUD was often restricted to urban women who had access to a physician and the financial means to pay for the service. Several national family planning programs acted to correct this situation in the mid-1960s. Nurses and midwives were trained to insert IUDs and to follow-up patients, and the...
outcomes of their insertions were compared with those performed by physicians. No differences were reported in rates of perforation, infection, expulsion, or other complications [1,2]. By 1969, approximately 75% of almost 400,000 IUD insertions in Pakistan were performed by nurses trained for this procedure [3].

During the 1970s and 1980s, nurse and midwife training programs and comparative evaluations relative to IUD insertion by physicians were undertaken across all developing countries, including the African countries of Kenya, Liberia, Mauritius, Nigeria, Tanzania, Tunisia, and Zimbabwe. The evidence has been consistent that nurse and nurse-midwife performance in IUD insertion is comparable, and in some instances superior, to that of physicians in terms of pregnancies, expulsions, and removals [4]. It is further suggested that client preference for a female worker, and the greater accessibility patients may have to nurses and midwives, may increase acceptance of the IUD and the quality of client follow-up in the months after insertion [2,4].

In the Sudan, which continued with the policy of physician insertion of all IUDs, nurse-midwives in the government service who had three years’ advanced training in maternal and child health and who are called ‘health visitors’, form a cadre of highly skilled personnel. With appropriate training, they could greatly extend the availability of contraceptive services. A study was initiated in 1994 to demonstrate the ability of health visitors to safely and effectively provide IUD services, from screening and counselling through insertion and follow-up.

Materials and methods

The research was conducted under the auspices of the National Mother and Child Health/Family Planning (MCH/FP) Directorate in collaboration with the Department of Obstetrics and Gynecology, Faculty of Medicine, University of Khartoum. Training materials and equipment, including Copper-T (Cu-T), were provided by the United Nations Fund for Population Activities (UNFPA). The Department of Community Medicine of the Faculty of Medicine, University of Khartoum provided technical assistance in data entry and analysis.

Twenty health visitors underwent a three-week training course given by the principal investigator, who is a gynecologist trained and experienced in IUD services. The training was conducted in the health centers where the selected health visitors usually work. Each health visitor performed at least 40 pelvic examinations and inserted at least 10 IUDs under the principal investigator’s direct medical supervision. The training also included counselling about the IUD and alternative methods, history taking and screening for contraindications. Clinical training covered bimanual and pelvic assessment of the uterus and adnexa, examination of the external genitalia, speculum examination of the cervix and vagina, sounding of the uterus, detection of pelvic abnormalities, follow-up examinations, and removal of the IUD. The health visitors were trained to recognize and manage simple side-effects and common vaginal infections and to recognize conditions which should be treated by a physician.