

BREAST-FEEDING: CURRENT KNOWLEDGE, ATTITUDES AND PRACTICES OF PAEDIATRICIANS AND OBSTETRICIANS.

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ABSTRACT

Objective-To assess the current knowledge, attitudes and practices of Paediatricians and Obstetricians in the greater Johannesburg area, using WHO/UNICEF 10 Steps to Successful Breastfeeding as a guideline.

Design- Survey.

Subjects- All Paediatricians and Obstetricians registered with the SAMDC and practising in the greater Johannesburg area.

Results- Most Paediatricians and Obstetricians advocate breastfeeding, but very few conform adequately to recommended guidelines.

Conclusion-Doctors, as part of the healthcare team, can have a significant impact on the successful initiation and maintenance of breastfeeding. There is a need for ongoing education and intervention programmes to update current knowledge on breastfeeding management.

INTRODUCTION:

In many societies breast-feeding rates are much lower than they should be if ideal health advantages to newborn infants are to be provided. Epidemiological data presented by Rossouw and Jansen (1990) provide information on the prevalence and duration of breast-feeding in South Africa between 1987 and 1989. They compared the disadvantaged community in which 88% of women tried for at least one week to initiate breast-feeding and achieved a mean duration of 10 months, with figures for the advantaged community in which 74,1% initiated breastfeeding and continued for a mean duration of 2,7 months. Prevalence rates, in the Johannesburg area, of exclusive breastfeeding at six weeks post partum were approximately 50%. (Hofmeyr et al 1991, Nikodem et al 1993).

This information gives an indication of the size of the problem of failure to maintain

lactation adequately in women who have chosen to breast-feed.

During 1989, WHO and UNICEF published a joint statement, entitled "Protecting, Promoting and Supporting Breastfeeding: The special role of maternity services" in which the "Ten Steps to Successful Breastfeeding" were introduced. The benefits of breast-feeding in the third world are undisputed. Cunningham et al (1991) refer to the many advantages of breast-feeding at all socioeconomic levels. Benefits tend to increase with increased duration and increased exclusivity of breast-feeding. Research has shown that breastfed infants have a lower incidence of acute diarrhoeal disease (Morrow et al 1992, Blake et al 1993) urinary tract infections (Pisacane et al 1992) otitis media lower respiratory tract infections, meningitis and bacteraemia (Cunningham 1991) as well as a decreased incidence and severity of necrotising enterocolitis in pre-term infants. (Caplan & MacKendrick 1993).

Long term health benefits for breastfed infants include a lower incidence of insulin dependant diabetes mellitus (Metcalf & Baum 1992, Drash et al 1994) and other auto-immune diseases including Crohns disease and ulcerative colitis (Rigas et al 1993). The incidence of childhood lymphomas is decreased (Schwartzbaum 1991) and certain forms of chronic liver disease have been prevented or modified by breast-feeding (Cunningham et al 1991). Recent research by Wong et al (1993) indicates that breast-fed infants have a lower rate of endogenous cholesterol production as a result of the higher cholesterol levels found in breastmilk.

The second follow-up report of the US surgeon general's workshop on breast-feeding and human lactation (U.S. Dept. of Health) cites inadequate professional education as an important barrier to initiation and continuation of breast-feeding.

The study shows lack of support or encouragement from physicians, nurses, and other hospital staff, inaccurate or inappropriate advice from health care personnel, and lack of access to health professionals adequately trained in lactation management, as important factors in failure to achieve successful lactation (Spisak & Gross 1991).

OBJECTIVE:

The objective of the study was to determine the current knowledge, attitudes and practices of paediatricians and obstetricians in the greater Johannesburg area, South Africa, by means of a survey.

METHODS:

Postal questionnaires were sent to 259 paediatricians and obstetricians. The list of participants was generated from the South African Medical and Dental Council register (1992). All registered paediatricians and obstetricians practising in the greater Johannesburg area were included in the study. This includes doctors working in academic hospitals as well as those in private practice. The questionnaires were self-administered and returned by post. The questionnaire consisted of 24 questions and required approximately 15 minutes to complete.

The questions covered various aspects of breastfeeding management including assessment of knowledge, practical skills, decision making and attitudes. Non-responders were followed up by telephone and questionnaires were sent out again where relevant. A postal reminder was sent to non-responders. All data were analysed using Statgraphics 5.0.

RESULTS:

Of the 259 doctors surveyed, 188 (73%) responded, 112 initially and a further 76 on follow up. Twenty (7%) of the respondents refused to participate or were self-excluded on the basis that their current work does not involve breastfeeding (Table 1).

The questionnaire related to some of the "Ten Steps to Successful Breastfeeding" as set out below:

Step 3: Inform all pregnant women about the benefits and management of breastfeeding.

The majority of obstetricians(O) (90%) and paediatricians(P) (89%) believe that most pregnant women attending their service are informed about the benefits of breastfeeding. About two thirds of the obstetricians (68%) and half the paediatricians (50%) routinely

TABLE 1: SURVEY SUBJECTS (n = 188 doctors)

Response Rate	Obstetricians		Paediatricians	
	Initial	Follow-up	Initial	Follow-up
Private Practice	30/115 (26%)	73/115 (63%)	33/62 (53%)	48/62 (77%)
Academic Hospitals	11/26 (42%)	20/26 (77%)	38/56 (68%)	47/56 (84%)
Combined	41/141 (29%)	93/141 (66%)	71/118 (60%)	95/118(81%)

TABLE 2: Number of respondents who answered correctly with respect to antenatal procedures no longer considered to be of benefit.

	Obstetricians	Paediatricians
No antenatal preparation of the breasts is needed	26 / 91 (29%)	23 / 53 (43%)
Hoffmann's exercises not effective for correction of inverted nipples	23 / 61 (38%)	11 / 38 (30%)
Woolwich shields not effective for correction of inverted nipples	25 / 67 (37%)	22 / 42 (52%)
Use of alcohol or ointments to toughen nipples not recommended	43 / 60 (72%)	26 / 43 (60%)

advise pregnant women to attend childbirth education classes. There are many doctors who provide incorrect advice concerning breastfeeding management (Table 2).

Step 4: Help mothers initiate breastfeeding within half an hour of birth.

About half of the obstetricians (44%) and paediatricians (50%) advise mothers who have had a vaginal delivery to breastfeed their babies within half an hour of the birth.

Slightly more, (O - 60%, and P - 55%) advise mothers who have caesarean sections to breastfeed within four hours of the birth.

Step 6: Give newborn infants no water or milk feeds other than breastmilk, unless indicated for a medical reason.

Thirty five percent of obstetricians and 15% of paediatricians advise water or dextrose feeds. Fifty eight percent of obstetricians and 90% of paediatricians feel that colostrum alone can satisfy adequately the baby's nutritional needs. One third of obstetricians (37%) feel that it is routinely necessary to supplement breastfeeding infants with formula feeds during the first few days after birth. Only a few paediatricians (4%) share this view. Similar percentages of obstetricians and paediatricians (O 12%, P 12%) feel that routine heel-prick blood glucose estimations are needed in healthy full-term neonates.

Table 3 indicates the respondents' perception of current medical contra-indications to breastfeeding. Eleven percent of obstetricians and eight percent of paediatricians still provide free samples of breastmilk substitutes to their patients.

Step 8: Encourage natural breastfeeding frequently and on demand.

Approximately two thirds of doctors encourage frequent breastfeeding as needed. Less than half (O- 39%; and P- 48%) feel that mothers should limit the duration of feeds.

Fewer obstetricians than paediatricians recommend exclusive breastfeeding for at least four months (O- 66% ; P- 88%) and advise the continuation of breastfeeding for at least nine months (O 71% ; P- 84%). Twenty percent of obstetricians routinely advise the introduction of solids before three months.

Most doctors (O - 62%; P - 70%) believe that the infant should have regained birthweight before two weeks of age, and would start worrying within this time period. An

TABLE 3: Perceived medical contra-indications to breastfeeding

	Obstetricians	Paediatricians
Full-term infant with physiological jaundice	13 / 70 (18%)	11 / 84 (13%)
Infants with cleft palate	27 / 68 (40%)	17 / 82 (21%)
Infants of diabetic mothers	6 / 70 (8%)	12 / 84 (14%)
Not regained birth weight by 10 days	26 / 67 (39%)	20 / 81 (25%)
Premature infants requiring ICU admission	29 / 76 (38%)	31 / 52 (60%)
Breast abscess	42 / 76 (55%)	24 / 79 (30%)
Mastitis	12 / 77 (16%)	3 / 80 (4%)

TABLE 4: Referral resources used by Obstetricians and Paediatricians:

	Obstetricians	Paediatricians
General Practitioner	5 / 78 (6%)	2 / 81 (2%)
Community midwife or clinic sister	8 / 78 (23%)	34 / 81 (42%)
Paediatrician	9 / 78 (34%)	6 / 81 (7%)
Lactation consultant or Breastfeeding organisation	26 / 78 (33%)	39 / 81 (48%)

alarmingly high percentage of doctors would then start supplementing with breastmilk substitutes (O - 78%, P - 63%) or would recommend test-weighing (O - 79%, P - 80%). Some encourage the mothers to breastfeed more often (O - 57%, P - 67%) or to supplement with solids (O - 5%, P - 2%).

Step 9: Do not give, or encourage, the use of artificial teats or dummies to breastfed infants. Do not encourage the use of nipple shields either.

Very few doctors advise mothers against the use of pacifiers (obstetricians 29% ;paediatricians 20%) or the use of bottles (obstetricians 29% ; paediatricians 51%).

Step 10: Promote the establishment of breastfeeding support groups and refer mothers to these on discharge from the hospital or clinic.

The most common reason given by mothers presenting with breastfeeding problems is insufficient milk production (O -66%, P - 50%). Obstetricians prefer to send women with lactation problems to paediatricians, while a number of paediatricians refer to lactation consultants (Table 4). Similar percentages of doctors (obstetricians 74% ; paediatricians 72%) would like to work in association with a specialized lactation consultant.

The following steps were not directly assessed in the questionnaire:

Step 1: Have a written breastfeeding policy that is routinely communicated to all health care staff.

Step 2: Train all health care staff in skills necessary to implement this policy.

Step 5: Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.

Step 7: Allow mothers and infants to remain together 24 hours a day from birth.

DISCUSSION:

Many women want to breast-feed, but experience problems. A common reason given for discontinuation of breast-feeding is "insufficient or inadequate" milk supply. This could be due to a lack of confidence by the mother in her ability to produce enough milk rather than a physiological deficiency. Encouragement, support and consistent advice from the medical profession may ultimately improve the breast-feeding success rate.

Few studies have investigated the role of doctors, as part of the overall healthcare team, in breast-feeding management. There is often underlying conflict between doctors, midwives and lactation consultants. This may result from care givers not updating themselves adequately with current research and progress on breastfeeding. Incorrect attitudes towards holistic health care and team work may exacerbate the problem and disagreement among health professionals about roles in management of breast-feeding also has been identified by some researchers (Lowe 1990).

The majority of women who decide to breast-feed make their decision very early in pregnancy or even before conception (Sarett et al 1983). Few studies have investigated how the medical profession and specifically paediatricians and/or obstetricians are able to influence this decision and more information from trials assessing health professionals who follow the recommended guidelines is needed. This study has shown that many doctors provide antenatal management guidelines that perpetuate breast-feeding myths. A woman who wishes to breast-feed her baby need not prepare her breasts/nipples in any way and the use of all ointments, alcohols, abrasives and u-v light is unnecessary.

A randomised controlled trial of breast shells and Hoffman's exercises reported that "there was no good evidence that recommending breast shells conveys any benefit in terms of anatomical change or successful breast-feeding. Women allocated shells were significantly less likely to be breast-feeding six weeks post-natally." (Alexander et al 1992)

Correct positioning of the baby at the breast and frequent feeding on demand are important for the prevention of nipple problems (Freed & Landers 1991), and a successful first feed augurs well for successful short and long term breast-feeding.

Breast-feeding is a learned skill requiring specific techniques in order to succeed and it is important for mothers to receive consistent advice during all phases of this learning period. In circumstances in which the mother and baby have to be separated, they require additional help and support. A new mother with an infant who is ill or compromised in any way, may be influenced by her attending doctors and a doctor's own attitudes and practices may influence the mother and baby, as well as the health-care team in the ultimate choice of infant feeding under these circumstances.

Evidence from randomised trials, although inconclusive (Steer et al 1992) suggests that non-nutritive sucking in preterm infants may facilitate the utilisation of milk fed by tube, possibly due to the release of lingual lipase. During the early period of feeding in a normal neonate, before lactation is well established, the use of artificial teats or pacifiers should be actively discouraged in order to prevent nipple confusion (Victoria et al 1993).

HIV status and breast-feeding is a controversial issue, especially in the third world where bottle-fed babies are at great risk of contracting infectious diseases. The current guidelines indicate that a woman who is HIV antibody positive should be advised to avoid breast-feeding, unless she has no access to clean water and a supply of formula (Goldfarb 1993). However, a recent study by Van De Perre et al (1993) suggests that HIV-1 IgM in breastmilk could be protective against postnatal transmission of the virus.

Significant numbers of medical personnel continue to advise mothers to give a pre-lacteal water or dextrose feed. Supplementary and complementary feeds of either water, glucose/dextrose or formula have not been shown to be of any benefit to healthy, term breast-fed infants.

Observations show that supplementary fluids ultimately may reduce the length of time for which a mother breast-feeds her baby, either by undermining her confidence, or by impairing her ability to establish effective lactation (Gray-Donald 1985). Colostrum is unique in composition and supplies the infant with all caloric requirements in the first few days of life, provided that the baby has unrestricted access to the breast (Salariya et al 1978).

When a mother experiences breast-feeding problems there are many doctors who incorrectly advise supplementary formula feeds, and then resort to test weighing to try to solve the problem on a more scientific basis. In the present survey, 80% of doctors felt that they would use test weighing as a means of intervention if the infant was not gaining weight adequately. Test weighing may be harmful to a mother's confidence in her ability to breast-feed (de Chateau 1977) and the measurement of one feed may not be representative of feeds taken throughout the day.

One should always check and correct breast-feeding position and latching to ensure that the baby is able to feed well. It is important for doctors to persist and remain patient, encouraging and supportive during a difficult stage of breast-feeding rather than suggesting the abandonment of breast-feeding in favour of artificial feeds. Samples of breastmilk substitutes are provided to many patients despite notification from the Department of Health to stop all free samples. Bergevin et al (1983) suggest that the use of an infant formula sample shortens the duration of breast-feeding and hastens the age at which solids are introduced. Giving a breast-feeding mother a sample of formula milk is an active step in discouraging her from breast-feeding, especially if she is experiencing any difficulties.

Normal, full term neonates should be fed on demand from birth with no recommended schedule during both day and night. Feeding the baby at frequent intervals will minimize or prevent breast engorgement (Inch & Renfrew 1989). For many years there has been a widespread belief that it is necessary to limit sucking time, particularly in the early stages, in order to prevent sore or cracked nipples but studies have shown that nipple soreness is not affected by the duration of a feed (Slaven & Harvey 1981). The composition and rate of flow of milk from the breast changes as the feed progresses (Hyttén 1954). At the start of the feed the baby takes a large volume of low calorie foremilk, changing to a small volume of high calorie hindmilk at the end of the feed. Limiting the baby's time at the breast thus may lead to a situation in which the infant fails to gain weight despite frequent feeds and an apparently good supply of milk. Research suggests that infants who are allowed to regulate the frequency and duration of their feeds gain weight more quickly and remain breast-fed for longer (de Carvallho et al 1982). Breast-feeding support groups play an important role in providing encouragement and advice to a mother with a newborn baby who may not have traditional family support systems and many of the doctors surveyed participate in a referral network. Breast-feeding support groups play a vital role in offering updated information and ongoing referral service to all health care professionals working in the field of maternal and child health.

CONCLUSION:

Results from this study indicate that current WHO/UNICEF guidelines are not being followed adequately at present. Paediatricians and obstetricians advocate breastfeeding, but are not "baby friendly" enough.

RECOMMENDATIONS

This research shows that there is a need for ongoing education of health professionals to update their knowledge about breast-feeding. There is a need, too ensure that undergraduate and postgraduate medical and nursing

teaching is in keeping with current knowledge about breastfeeding. There is evidence that intervention programmes can result in positive changes in breast-feeding behaviour (Newton 1992).

As a global goal for optimal maternal and child health and nutrition, all women should be enabled to practice exclusive breast-feeding and all infants should be fed exclusively on breastmilk from birth to 4 - 6 months of age. Thereafter, children should continue to be breast-fed, while receiving appropriate and adequate complementary foods (Innocenti Declaration 1989).

Medical professionals who care for women during pregnancy, childbirth and the post-natal period have a crucial role to play in enabling mothers to initiate successfully and maintain breast-feeding.

A greater commitment on the part of paediatricians and obstetricians to use recommended guidelines to promote breastfeeding could accelerate the current trend back to breastfeeding at all socio-economic levels.

In order to conform to WHO/UNICEF guidelines, the results of this survey show that doctors should attempt to:

- reject the myths surrounding breast-feeding practice.
- reject the premise that hygienic bottle feeding is just as good as breast-feeding.
- not impose restrictions on the duration or frequency of feeds.
- not encourage the use of bottles or pacifiers in breast-fed infants
- terminate the practice of giving free milk powder samples to mothers
- actively encourage women to breast-feed their babies.
- know how to help a mother to position her baby correctly at the breast.
- be able to identify and treat early breast-feeding problems.
- provide continuity and personal support based on sound knowledge of breast-feeding.
- form part of a larger network incorporating breast-feeding support groups, clinics and any person/organisation involved with the promotion and support of breast-feeding.
- continually update their knowledge about benefits of breast-feeding and advances in breast-feeding management and practices.

Doctors, as part of the healthcare team, can have a significant impact on a mother's decision to breast-feed and on the successful initiation and maintenance of breast-feeding.

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