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Adjusting to motherhood Maternity care assistance during the postpartum period: How to help new mothers cope

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ABSTRACT

The overall aim of postpartum care is to detect health problems of the mother and/or baby at an early stage, to encourage breastfeeding and to give families a good start. This paper presents an overview of recent literature about postpartum care in several developed countries and elaborates on the Dutch model, which consists of professional postnatal care, provided by MCAs (maternity care assistants), who are supervised by midwives. The most important tasks of the maternity care assistant are, by becoming part of the family for a number of hours each day, being able to detect possible health problems, and to instruct, observe, and support the mother (and father) in establishing a new routine in their family life and help them to become confident in their parenting.

BACKGROUND

Maternity care is care during pregnancy, childbirth and the postpartum period. Maternity care is not only medical care, but also psychosocial care and support, information and education. Postpartum care is that part of maternity care that is concerned with the care for mother and child in the days and weeks following birth.

For new parents the postpartum period is a period of major changes. They will have to get used to their new life and, especially for first-time parents, they will have to learn new skills and adopt new routines (Fredriksson et al., 2003; Leahy Warren, 2005). The postpartum period is often, for first-time parents as well as for parents with older children, a time of many questions and insecurities (Fredriksson et al., 2003). Many new parents experience feelings of tiredness and difficulty in sleeping (McQueen and Mander, 2003). At the same time they are expected to be happy and content and to adjust without much difficulty. The aim of postpartum care is not only to ensure the physical health of mother and baby and to detect complications at an early stage, but also to help parents cope with this new situation, to support them during these first difficult days and to ensure they feel confident in handling their baby.

In this article I want to argue the case of professional postpartum care Dutch-style. That is: postpartum care at home, provided by a professional caregiver: a maternity care assistant or MCA, during at least 3 hours a day for seven or eight consecutive days following birth, with a midwife visiting four or five times during this period. To support my arguments I have been looking for research that would provide me with elements that are regarded as important in postpartum care. That was not easy, however, because, as Albers wrote: "Of the entire maternity care cycle, the postpartum period occupies the lowest priority in practice, teaching, and research" (Albers, 2000). A systematic review by Levitt et al. (2004) of published randomized controlled trials on postpartum interventions

yielded 138 studies meeting the selection criteria, with 41 studies on breastfeeding, 31 studies on perineal pain and 66 studies on other topics. Only 13 studies were concerned with postpartum support and 4 with early discharge. I, therefore, cast my net wider and included a broad range of publications, including research articles, reviews, debate articles, and editorials, using the search term 'postpartum care' with limit 'publication date from 2000' in PubMed (June, 2005). This yielded 603 titles, from which I selected publications concerning the effects or evaluation or just description of different forms and aims of postpartum care, including considerations about early discharge or community and social support in the postpartum period.

POSTPARTUM CARE

In western countries with a high standard of medical care, prenatal and natal care are very much the same with on average between 8 and 12 prenatal visits and almost every birth in hospital, assisted by a midwife or an obstetrician. Until 15-20 years ago postnatal care consisted of a postpartum hospital stay of several days, sometimes followed by one or two home visits by a nurse or midwife during the following weeks. Since the late 1980s the duration of the postpartum hospital stay in most developed countries is strongly reduced (see Table 1) and in each country the postpartum care developed differently, although the overall aim is the same: to detect health problems of mother and/or baby at an early stage, to encourage breastfeeding and to give families a good start.

[TABLE 1]

The optimal number of days in hospital has often become a matter of debate, focusing on the merits and disadvantages of so called 'early discharge', usually meaning discharge from the hospital for both mother and baby at less than 48 (after uncomplicated vaginal delivery) or less than 72 (after caesarean section) hours following the birth (Madden et al., 2002). Advocates for 'demedicalizing' childbirth argue that most postpartum care can safely be provided at home, while critics insist that early discharge is primarily aimed at cost containment and that complications in newborns might go undetected (Madden et al., 2002).

Dutch maternity care is different from maternity care in other developed countries for a number of reasons of which the place of birth is the most obvious, with a home birth rate of 30%, throughout the last decade, compared with a home birth rate of 1% or less in other western countries. The organization of postpartum care is another notable but less well-known difference. Since the early years of the previous century professional postpartum care at home was advocated in the Netherlands, especially for poor women, because it was recognized that giving children a good start in life was one of the most important contributions to the reduction of infant mortality (Teijlingen, 1993).

OVERVIEW OF THE LITERATURE

The selected publications are presented according to four topics: the postpartum period; professional postpartum care; the costs of professional postpartum care; and psycho-social effects of postpartum care.

Recent research literature (2000 and later) concerning *the postpartum period* often focuses on length of postpartum hospital stay in relation to infant mortality, to readmission to hospital, or to breastfeeding duration and breastfeeding rates, or to the utilization of health care services during the first month after childbirth (Malkin et al., 2000; Winterburn and Fraser, 2000; Madden et al., 2002, 2003; Heck et al., 2003; Ellberg et al., 2005). Length of postpartum hospital stay and the availability of care after discharge can vary considerably between countries, as is shown by the following examples.

In the United States discharge from hospital on the day after a normal vaginal delivery had become commonplace in the early 1990s. This led, however, to safety concerns, to the fear that health problems would go undetected. In reaction to that, several states, and in 1998 the federal government, passed a law requiring insurers to cover a minimum hospital stay of 48 hours after vaginal delivery (Madden et al., 2002). Since then, the average length of stay after childbirth increased significantly in most states, but early discharge is still fairly common. In 2000-2002, according to the report 'Listening to mothers', one in three newborns (36%) was discharged from the hospital within 48 hours of birth

(Declercq et al., 2002). Postpartum home visits after uncomplicated childbirth are relatively rare in the United States. Although an early-discharge-protocol often includes at least one home visit, only about one mother and newborn in five (19%) received either one (11%) or more (8%) home visits from a health care worker (Declercq et al., 2002).

In the United Kingdom the average hospital stay after childbirth is 1-2 days. In 1989-1990 in England, nearly 40% of women remained in hospital for four or more days after delivery, by 2003-2004, the proportion was only 16% (Government Statistical Service for the Department of Health, 2005). In 2003-2004 about 15% of women left hospital on the same day, about 35% left the next day, 20% two days later and 15% three days later (Government Statistical Service for the Department of Health, 2005). Postnatal care generally consists of about seven home visits of a community midwife during a fortnight (MacArthur et al., 2002).

In Sweden a system for early discharge following normal pregnancy and delivery started in 1998. Families discharged within 24 hours after delivery receive a home visit during the first day at home, are contacted daily by telephone by a midwife, have access to a midwife by telephone 24 hours a day and, at 3-5 days postpartum the mother is given a final check-up and consultation, and the baby is given a physical examination and PKU (phenylketonuria) screening (Fredriksson et al., 2003). In northern Sweden parents can choose between early discharge home or a three-day stay in a 'family suite' hotel, staffed by midwives (Fredriksson et al., 2003). Recent research has shown that the risk of readmission during the first month after childbirth was not greater for mothers and children who received care through the family suite or early discharge programs (Ellberg et al., 2005). Other research found a relation between the length of postpartum stay and socio-demographic and (clinical) readiness-for-discharge factors (Weiss et al., 2004) or length of stay and general health problems and readmission (Malkin et al., 2000).

In Ontario, Canada, a provincial policy initiative in 1999 intended that women be offered the option of up to a 60-hour postpartum in-hospital stay following an uncomplicated vaginal delivery, out of concern for the effects of 'early' discharge on the health of mothers and their infants (Watt et al., 2005). A minority of those offered a 60-hour stay, between 21% and 39%, accepted, for a variety of reasons, including their own health (32%) the health of their baby (40%), and breastfeeding difficulties (20%). Reasons for declining a longer hospital stay were wanting to go home (40%), feeling ready for discharge (25%), dissatisfaction with their hospital accommodation or care (16%), and other children at home (10%). As a result of this policy the average length of stay increased only marginally, but there was a significant reduction in stays of less than 24 hours and the overall satisfaction with postpartum length of stay increased significantly (Watt et al., 2005).

Research concerning *professional postpartum care* often focuses on special (clinical) care after a caesarean section or care for premature infants, or on the difference between a home visit and a screening telephone call (Steel O'Connor et al., 2003), a home nurse visit and a hospital-based follow-up (Lieu et al., 2000; Escobar et al., 2001) or additional home visits by community postnatal support workers (Morell et al., 2000). The conclusion often is that there are no significant differences in clinical outcomes and that (additional) home visits are more costly, but result in markedly higher maternal satisfaction. A research study in which early discharge combined with home midwifery support was compared with traditional postnatal hospital stay of 4-5 days found that the home-based care group reported fewer problems with breastfeeding and greater satisfaction with the help received (Boulvain et al., 2004). In a study about satisfaction with postnatal hospital care, Brown et al. (2005) found that the odds of women giving a lesser rating of their postnatal care in hospital were raised more than threefold when midwives were seen to be rushed, doctors or midwives were seen as lacking sensitivity and understanding, and advice and support was perceived as less than 'extremely helpful'. The perceived lack of advice or support about feeding their baby or about preparing to go home also contributed strongly to them rating their postnatal care as less than 'very good'.

In 1999 the Royal College of Midwives in the UK published a position paper about support workers in the maternity services. One of the RCM-recommendations is: "A multidisciplinary forum should review the potential role of the support worker in community settings, particularly in postnatal care, and develop recommendations" (RCM The Royal College of Midwives, 1999). However, postpartum care is still primarily the task of the midwife, who visits the family regularly, about seven times,

during the first 10-14 days after discharge from the hospital. General practitioners also do routine home visits and a final check after 6-8 weeks (MacArthur et al., 2002).

There has been some research about *the costs of professional postpartum care in relation to its expected* (clinical) effect. In the UK research has been done to assess the additional costs and effectiveness of community postnatal support (Morell et al., 2000). They compared the usual care provided by community midwives with additional visits from support workers. The researchers explicitly referred to the Dutch model of maternity care assistance and probably designed their intervention with the tasks of Dutch MCAs in mind: the support workers were to “provide effective practical and emotional support, including helping the mother gain confidence in caring for her baby and reinforcing midwifery advice on infant feeding.” (Morell et al., 2000). The women in the intervention group were offered 10 visits from a support worker for up to three hours per day in the first 28 postnatal days, in addition to the usual postnatal care by community midwives. Most women participating in the study received six visits from a support worker, ranging from 10 to 375 minutes per visit. No average time per visit or total time per client was given and there is no mention of the days on which the visits took place, but it probably did not resemble the Dutch maternity care assistance if the visits were spread over 28 days. The main outcome measures were general health status, risk of postnatal depression and cost savings. The conclusion was that there was no health benefit of additional home visits and there were no cost savings after six months, but satisfaction with the new service was high. However, the outcome measures used are rather crude, and no attention is given to psycho-social aspects as competence and confidence. And it may be no surprise that adding a new service to an existing one is not cost saving, although providing a service where none existed before can be. In an American study a home nursing visit after discharge, compared to no home nurse visit, was found to be highly cost-effective for reducing the need for subsequent hospital-based services (Paul et al., 2004). An economic evaluation in the UK in which early discharge combined with home midwifery support was compared with traditional postnatal hospital stay of 4-5 days found that the early discharge program significantly reduced costs without compromising the health and well-being of the mother and infant (Petrou et al., 2004). A randomized comparison of home and clinic follow-up visits after early postpartum hospital discharge in California, USA, showed that for low-risk mothers and newborns home visits were more costly, but were associated with equivalent clinical outcomes and markedly higher maternal satisfaction (Lieu et al., 2000). Finally, in the Canadian study Watt et al. (2005) conclude that neither health outcomes nor economies in service utilization were found to provide justification for an extended postpartum hospital stay for healthy women and infants.

Research on psycho-social effects of postpartum care is concerned with satisfaction and confidence of new mothers and the way they cope with their new situation. Information and support from significant others and sufficient advice from health professionals has been shown to contribute to the feelings of competence and success of mothers in their new role and to be associated significantly with satisfaction with services received (Murray et al., 2000; Tarkka, 2003; Leahy Warren, 2005). A trial in Toronto, Canada, showed that postpartum care augmented with individualized professional support significantly increased the duration of breastfeeding in the first month postpartum (Porteous et al., 2000).

A survey among new mothers in Brisbane, Australia, showed that early discharge made the need for rest and information a high priority (Emmanuel et al., 2001). Another Australian study found that the provision of specific information relating to baby-care and self-care are primary educational needs for first-time mothers (McKellar et al., 2002). Tarkka (2003) found that, after 8 months, the better a mother perceived success in child care, such as bathing, feeding, soothing and dressing the child, the better was her maternal competence.

DUTCH POSTPARTUM CARE: THE MATERNITY CARE ASSISTANT OR MCA

In the Netherlands approximately 40% of all pregnant women stay at low risk throughout their pregnancy, birth and postpartum period and 30% of women, i.e. three quarters of those at low risk, give birth at home, assisted by a midwife or, in some areas, a general practitioner (Anthony et al., 2005). For women with low-risk pregnancies standard maternity care in the Netherlands is an average of 11 or 12 antenatal visits to a midwife, one or two ultrasound scans during pregnancy, childbirth at

home, assisted by a midwife and a maternity care assistant (MCA), or in hospital, assisted by a midwife and a nurse. Standard care after normal childbirth in hospital includes returning home within a few hours, five or six visits at home from the midwife during the following 10-12 days, and the help of the MCA for an average of 6 hours a day during seven or eight consecutive days. Standard maternity care is concluded with a visit to the midwife six weeks postpartum.

More than 90% of all women who give birth, whether at home or in hospital, whether in primary or in secondary care, receive maternity care assistance (Herschderfer et al., 2002). In case of a home birth the MCA is expected to be present at the time of birth, to assist the midwife or GP, and to stay with and take care of the mother and the newborn for at least 2 hours after the placenta has been born. In case of a hospital birth the MCA is expected to be present when mother and baby return from the hospital. Maternity care assistance is part of the standard insurance package.

In a countrywide study in 2001 about the content of maternity care assistance the following tasks were identified: nursing care for the baby, nursing care for the mother, (breast) feeding support, health-education about the baby and about the mother, support with household tasks, receiving visitors and taking care of other children (Herschderfer et al., 2002). This research has shown that 56% of the available time of the MCA is spent on care-related activities and 44% on other activities (household tasks, receiving visitors and looking after other children). The advantage of combining care-related and non-care-related tasks is that the information and education is imbedded in the daily activities and therefore more easily understood and accepted. It is obvious that the best moment to receive breastfeeding support is while breastfeeding, information and education about baby-care is best remembered when received during the activity itself and it is easier and more effective to discuss difficulties when they arise than to wait for hours or days until the next visit of the health care provider. That is why the MCA is present for at least 3 hours a day. In addition, the midwife will pay four to six home visits of approximately 30 minutes during the first ten days postpartum, followed by a final check six weeks postpartum (Wiegers and Janssen, 2004). Follow-up care is provided by the well-baby clinic, with regular health checks and an extensive vaccination program starting at the age of 2 months.

MCAs will have completed a 3-year mid-level vocational training as health support worker, with special attention to postpartum care. They can be self-employed, advertising their services in the local newspaper and counting on recommendations from former clients, but the majority is employed by a local or regional organization for maternity care assistance, often in combination with other home help services. They cooperate closely with and are supervised by the local midwife.

The number of days and the number of hours per day each client receives maternity care assistance depends on several factors: the health status of mother and child, the number of MCAs available at a certain moment, the wishes and preferences of the clients, and the agreements between insurance companies and care providers. Since the 1960s there has been consensus between insurers and care providers about a minimum duration of maternity care assistance of 24 hours and a maximum of 64 hours during 8-10 days following the birth in case of an uncomplicated postpartum period, and a maximum of 80 hours if necessitated by complications, at the indication of the obstetrical caregiver (Welling and Wiegers, 2001). Because of the shortage of MCAs in recent years and cost reduction efforts of insurers, fulltime maternity care assistance (64 hours: 8 hours a day during 8 days) has become an exception, often replaced by part-time care (usually between 3 and 6 hours a day) or, occasionally, short daily visits. The average number of hours clients receive maternity care has dropped from 44.6 in 1998 to 42.9 in 2002 (assistance during birth included). In 2003 the average slightly increased again to 43.2 hours per client (CBS, 2005). In 2001 the average number of hours native Dutch clients received maternity care assistance was 46 hours per client (Herschderfer et al., 2002). The researchers found that women receiving less than 6 hours of care per day were less confident about their ability to take care of themselves, about their skills in baby care, and were more worried about their baby's health six weeks postpartum, than the women receiving 6 hours or more of maternity care assistance each day (Herschderfer et al., 2002). The cut-off at 6 hours was somewhat arbitrary but did show the difference between both groups.

That maternity care assistance is a typical Dutch phenomenon is also apparent by the fact that women of foreign origin make much less use of it than Dutch women. Research in 1999 showed that immigrant women often do not apply for maternity care assistance because they are unfamiliar with

the service, they often have not been informed properly, and they expect help from their own family. And, if they do apply for it they are often late, ending up with only a minimum of care because at short notice there are not enough MCAs available (El Fakiri et al., 1999).

Asked about their experience with maternity care assistance the majority of women is very pleased with the care received. A study among midwifery clients showed that in 2001 75%, in 2002 77%, in 2003 83% and in 2004 81% of women received the care they had wanted and of those who were not satisfied with the care they received, the most frequently mentioned reasons were that they would have wanted more hours/ days of care or that there were too many different MCAs involved in their care (Wiegers and Coffie, 2002, 2003; Wiegers and Janssen, 2004, 2005).

In the Netherlands there is no discussion about the benefits or disadvantages of early discharge, because, with so many home births, the issue is irrelevant. The current discussion is about the optimal length of postpartum home care, considering that an increase may be desirable but unsupported by the insurance companies, while a further decrease is unwanted by caregivers and clients alike. To help decide on this a protocol has been designed to assess the appropriate length of maternity care assistance for each individual woman, based on the tasks of MCAs as described in the study of Herschderfer et al. (2002) and on the general agreement that one of the strong elements in maternity care assistance is the fact that health care and psycho-social care are indissolubly intertwined. They are two sides of the same coin: attempts to reduce the time spent on one of these will immediately reduce the effectiveness of the other.

THE MERITS OF POSTPARTUM CARE DUTCH STYLE

The overall aims of postpartum care, namely, monitoring the health status of mother and baby, early detection of possible problems, providing (breast) feeding support, baby care support, health education and family support, are broadly acknowledged. It is also widely accepted that breastfeeding is the preferred way to feed infants: it provides significant nutritional and immunological advantages to the infants and physiological, psychological and social gains to the mothers (McKeever et al., 2002). Breastfeeding support is essential to ensure effective breastfeeding techniques. Aspects of postpartum care that are shown to be highly valued by recent mothers are: caregivers who are sensitive and understanding, who have time to spend with the women, who listen and acknowledge their specific concern, who ask about their own health and recovery and about the baby's health and progress, and who provide support in relation to the transition to taking the baby home (Brown et al., 2005).

An important reason to support professional postpartum care, usually by opposing early discharge after childbirth, has always been the fear of breastfeeding failure, leading to feeding-related problems with newborns. Another reason to support professional postpartum care is that timely detection of symptoms that may lead to health problems later will help reduce readmission rates and thereby reduce costs. In a study by Salem-Schatz et al. (2004) conflicting information, communication gaps, and the unavailability of key information were described as barriers to a timely identification of infants with hyperbilirubinaemia after discharge from hospital. A further reason to support extended postpartum care is that new mothers will get a chance to get enough rest.

McQueen and Mander (2003) describe tiredness and fatigue as one of the major problems of new mothers, but they have no clear recommendation to alleviate this. One of their suggestions is more professional support at home, for instance by increasing the number of 'routine' visits of the midwife (thereby increasing the costs) and another is to adopt the Chinese model of informal intensive family support, but neither are regarded as very realistic. Longer postpartum hospital stay would also provide the mother with the necessary rest, but not with the chance to adjust to the new family situation. Moreover, it would increase the costs significantly and put pressure on the availability of hospital beds. A solution would be a professional postpartum support worker, or MCA, providing family support and health care assistance at home during the first week following childbirth. The advantage of providing professional postpartum care at home is that it can be integrated in the normal family routine and that it combines the necessary medical and psychosocial aspects, while reducing the length of hospital stay and therefore reducing the costs of maternity care.

The disadvantages of extended professional postpartum care at home, especially at the start, are its complexity and its costs. Without adequate schooling in postpartum care and without an already existing system of home help services it is complex to organize that an MCA is available at any given

moment and it is costly to maintain that level of service. On the other hand, providing the same level of care in hospital by nurses, implying a hospital stay of several days, is much more expensive.

CONCLUSION

The tasks of the Dutch MCA are to monitor the health status of mother and newborn, detect any signs of distress or pathology, for instance a suspicion of jaundice (hyperbilirubinaemia) that may appear from the fourth to the sixth day of life, and report that to the midwife. Other tasks are: to give instructions and help with positioning the baby for (breast) feeding and sleeping, bathing the baby and caring for the umbilical cord, ensuring that the mother gets enough rest to recover and enough time to bond with the baby, by assisting with or taking over some of the household tasks such as washing, cleaning, cooking and, if they are present, looking after the other children. In summary, one of the most important tasks of the maternity care assistant is, by becoming part of the family for a number of hours each day, being able to instruct, observe, and support the mother (and father) in establishing a new routine in their family life and help them to become confident in their parenting. Research has shown a relation between the number of hours of postpartum care per day and the confidence of women about their ability to take care of themselves and their baby (Herschderfer et al., 2002).

In this article I have presented data and ideas about postpartum care in several countries and described the Dutch model of postpartum care. To show the effects of this model, compared to other models, a randomized controlled trial (RCA) would be the best method. However, because maternity care assistance in the Netherlands is highly valued and used by the vast majority of women, an RCA would be unethical and impossible to perform. To introduce maternity care assistance in other countries in order to perform an RCA would be very costly because of the lack of infrastructure of organizations and professions to provide maternity care assistance. Therefore we will have to content ourselves with the 'soft' results available to us. It is my opinion that learning to cope with the new situation after childbirth, adopting new routines in daily life, will not be achieved during a two-day hospital stay or a stay in a postpartum hotel. Professional support in the form of maternity care assistance at home is instrumental in giving families a good start, which is to the benefit of both the clients themselves and the health care system. The costs of extended postpartum care should be compared with the costs of other professional care models, such as prolonged hospital stay or a stay in a postpartum hotel. Compared with those the Dutch model of maternity care assistance is a good example of cost-effective and satisfactory care.

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TABLE**Table 1** Average length of hospital stay (in days) after normal childbirth, in selected OECD-countries

	1975	1980	1985	1990	1995	2000	2001	2002	2003
Norway				5.3	4.4	4.0	3.9	3.9	3.7
Finland		6.9	6.8	5.4	4.1	3.7	3.7	3.6	3.6
Sweden				4.4	3.1	2.8	2.6	2.6	
Denmark			4.7	3.8	3.2	3.2	3.1	3.0	2.9
Germany					5.8	4.7	4.6	4.4	
UK				3.5	2.4	2.1	2.0	1.9	1.9
Belgium					5.4	5.3	5.2	5.1	
Switzerland	9.7	9.2	8.5	7.6	6.2	6.0	6.3	5.9	5.8
Italy	7.0	6.8	—	5.8	—	3.9	3.8	3.7	3.7
United States		3.0	2.5	2.0	1.5	2.0	1.9	1.9	
Canada		4.7	4.2	3.5	2.2	2.0	2.0	2.0	
Australia					3.5	2.9	2.9	2.8	
New Zealand			5.5	4.2	2.8	2.0	2.0	2.0	

Source: OECD Health Data 2005.