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Evaluating midwifery-led antenatal care: Using a programme logic model to identify relevant outcomes

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ABSTRACT

Background: a range of initiatives has been introduced in Ireland and internationally in recent years to establish midwifery-led models of care, generally aimed at increasing the choices available for women for maternity care. A midwifery-led antenatal clinic was first established at the study site (a large urban maternity hospital in Dublin) and extended over recent years. This paper reports on the design of an evaluation of these midwives clinics, in particular the use of a programme logic model to select outcomes to be included in the evaluation.
Aims and objectives: the programme logic model is used to identify the theory of a programme and is an integrative framework for the design and analysis of evaluations using qualitative and quantitative methods. Through an inclusive approach, the aim was to identify the most relevant outcomes to be included in the evaluation, by identifying and linking programme (midwifery-led antenatal clinic) outcomes to the goals, inputs and processes involved in the production of these outcomes.
Methods: the process involved a literature review, a review of policy documents and previous reviews of the clinics, interviews with midwives, obstetricians and managers to identify possible outcomes, a focus group with midwives, obstetricians, managers and women who had attended the clinics to refine and prioritise outcomes, and a follow-up survey to refine and prioritise the outcomes identified and to identify sources of data on each outcome.
Findings: seven categories of outcomes were identified: (1) choice, (2) relationship/interaction with caregiver, (3) experience of care, (4) preparation and education for childbirth and parenthood, (5) effectiveness of care, (6) organisational outcomes, and (7) programme viability. A range of sources of information was identified for each outcome, including existing documentation and data, chart audit, survey of women, and interviews and focus groups with midwives, obstetricians, managers and women.
Conclusions: the programme logic model provided an inclusive, systematic and transparent approach to identifying relevant outcomes to be included in the evaluation. The information obtained has been used since to design the evaluation project, which is currently being concluded.

Introduction

The development of the role of the midwife is an important theme in health policy in Ireland and in other countries. This is generally aimed at improving the care that women receive for pregnancy and birth (NCNM, 2009), increasing the choices for women in relation to the model of care that they receive, and enhancing the contribution of midwives to 'quality maternity

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care' 'focusing on the wellbeing of women, babies and families' (Masterson, 2010). Policy statements focus both on the core role and the developing role of the midwife (UK Chief Nursing Officers, 2010), with a particular emphasis on the development of midwifery-led care for women with normal pregnancy and childbirth.

A range of midwifery-led care models has been developed across countries which are delivered in community and/or hospital settings. Midwifery-led care is defined as care where: 'the midwife is the lead professional in the planning, organisation and delivery of care given to a woman from initial booking through to the end of the postnatal period … Midwife-led models of care aim to provide care in either community or hospital settings, normally to healthy women with uncomplicated or 'low-risk' pregnancies' (Masterson, 2010). A recent survey conducted in the UK by the Royal College of Midwives (RCM, 2010) estimated that 69% of women assessed at the booking appointment were suitable for midwifery-led care. In New Zealand, the majority of childbearing women (78%) have their care provided by midwives alone (Ministry of Health, 2007).

The predominant model of maternity care in Ireland is hospital-based consultant-led care. However, a realisation of the potential for midwives to provide the majority of care for women with normal pregnancy, together with a continued increase in demand for maternity services over recent years in the absence of any additional investment in maternity care (Lynch, 2011), has prompted policy makers to consider alternative models of maternity care, including the introduction of midwifery-led initiatives. This shift in thinking is supported in policy recommendations (e.g. Kinder, 2001; KPMG, 2008) and a number of recent studies that show that midwifery-led care is as safe as consultant/doctor-led care for women with normal pregnancy and birth, and can provide additional benefits (Villar et al., 2001; Hatem et al., 2008; Caird et al., 2010; Devane et al., 2010; Bernitz et al., 2011; Sandall et al., 2011). Midwifery-led antenatal clinics were first introduced in 1984 at the study site (a large Dublin maternity hospital) and have been increased in number and extended over recent years. This paper reports on a project to evaluate the effectiveness of these clinics, focusing specifically on the use of a programme logic model to inform the design of the evaluation.

Programme logic models

A programme logic model approach was adopted to design an evaluation that would focus on relevant outcomes and factors involved in the achievement of these outcomes. This is based on the premise that programmes (e.g. services) are based on explicit or implicit theory about how and why a programme will work. This theory can be articulated by identifying programme elements and how they are expected to relate to each other. Programme logic models are 'flow charts that display a sequence of logical steps in programme implementation and the achievement of desired outcomes'; the key elements of the model being antecedents, transactions and outcomes (Cooksy et al., 2001: 120) (see Fig. 1). It is also suggested that challenges and contextual factors should be noted explicitly when identifying the antecedents of a programmes (Hill and Thies, 2010; Hayes et al., 2011). These are the factors that exist external to the programme and beyond its control but which can influence implementation and outcomes. Cooksy et al. (2001) suggest that a theory-driven approach to evaluation is more likely to focus on programme effectiveness than traditional method-driven approaches. Also the linking of outcomes to specific inputs and activities provides a focus on 'what is needed to lead to certain, predicted outcomes' (MacPhee, 2009). This may help to ensure outcomes are based on realistic expectations and on the inputs available.

Programme logic models have been used in a variety of areas including social programmes addressing homelessness, poverty (Julian et al., 1995), domestic violence and child neglect programmes (Hill and Thies, 2010), community based programmes (United Way of America, 2003); adult literacy (Unrau, 2001); juvenile justice (Gavazzi et al., 2000); and loneliness interventions for older people (de Vlaming et al., 2010). Logic models have also been used to develop evaluation frameworks for health care programmes relating to perinatal addictions (Julian et al., 1995); community-based mental health services for children (Yampolskaya et al., 2004); youth mental health (Afifi et al., 2011); nurse-managed community health programmes (Dykeman et al., 2003), and general practice Pap nurse programmes (Hallinan, 2010). A logic model approach was used by McNeill et al. (2010) in Northern Ireland, in their review of the public health role of the midwife. They used the approach to identify public health interventions that could be conducted or co-ordinated by midwives and the outcomes of these interventions, and to guide their search of the literature to be included in their systematic review.

The importance of a balanced set of outcomes for evaluation

Kaplan and Norton (1992) introduced the concept of the 'balanced scorecard' in the 1990s, to guide the selection of evaluation outcomes and in response to concern at that time that evaluations tended to focus primarily on financial outcomes, often ignoring other important outcomes. The balanced scorecard promotes a focus on four dimensions: financial, customer, effective processes and organisational learning and growth. Translated to midwifery-led antenatal care, it suggests outcomes should be included relating to women's experiences of antenatal care, as well as clinical and economic outcomes. The organisational learning and growth dimension relates to an organisation's strategic competencies, strategic technologies, climate for action, and leadership and governance. Effective evaluation, using appropriate measures, is an important input to this learning and growth.

Methods

Ethical approval was obtained from hospital and university ethics committees and written informed consent was sought from participants. The project described was conducted over a six-month period in 2011. As suggested by Hayes et al. (2011) the

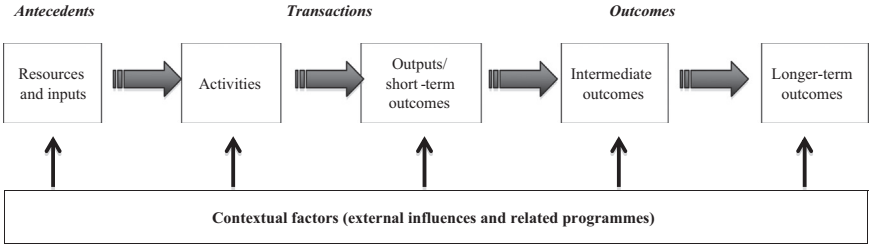

Fig. 1. The programme logic model.