A review of psychosocial predictors of outcome in labour and childbirth

INTRODUCTION
This review is an overview of important psychological factors which influence outcomes of pregnancy and childbirth. The authors summarise recent and important research which is intended to provide an overview for midwives. It is our contention that despite significant medical advances (e.g. pain relief), psychological factors play a major part in a woman's experiences at this time. Importantly for midwives these factors are all potentially modifiable so through increased knowledge, advances in service can be made. New Zealand is well suited for integrating these practices due to the system of midwifery lead maternity care. Some factors in this review, such as the benefits of continuous support, will be well known and others may be new. Therefore practitioners can support ideas and practices already held and possibly integrate new approaches.

ABSTRACT:
In the following review we synthesise research on psychosocial factors that influence the outcome of labour and childbirth. The review covers psychological factors that have been shown to be important for the actual childbirth experience, namely pain, fear, control, anxiety, confidence and self-efficacy. The review also examines predictors of positive outcomes following birth including social support, expectations, preparation, and continuous support. This body of research informs debate on healthcare system reforms in the future and provides direction for areas of research in the intersection of midwifery practice and psychological theory.

KEY WORDS:
Birth, labour, social support, expectancies, preparation.
FEAR OF THINGS GOING WRONG – HANDING OVER CONTROL

Along with the greater medical knowledge of birth has come an increasing focus on what may go wrong during the pregnancy and birth. Bradley (1996) argued that increasing medicalisation takes away from the family that intimate joy of welcoming a new member, and places added pressures on those who monitor the process of giving birth. The following experience of a New Zealand midwife typifies these concerns: “In 2000 ... I spent hours talking normal birth to women and suddenly I was faced with a 74% normal delivery rate in my practice” (Vincent, 2008). She argued that a co-dependency is created, with pregnant and birthing women becoming overly dependent on their Lead Maternity Carer. This assertion is supported by Miller (2003), who expressed a concern about women readily and willingly handing over control of their birthing processes to the professionals caring for them when they did not understand how to cope during labour and birth. Miller (2003) argued that this reliance on expert knowledge and opinion can lead to a culture of dependency on the maternity care provider, which results in birthing women experiencing a loss of control over the birth process.

Feeling in control during labour and birth was defined by Hodnett and Simmons-Tropea (1987) as a sense of mastery over both the internal manifestations of the birthing process as well as related environmental factors. This is achieved through confidence in one's ability to make choices that are actively responsive in managing one's birthing process. This includes feeling able to handle contractions and direct personal behaviours appropriately along with making reasoned choices regarding medical interventions (Green, 1999).

Women's experiences of childbirth were examined using a phenomenological approach in an in-depth interview study in the United Kingdom (UK) (Gibbins & Thomson, 2001). Eight women were asked about their birthing experience and how this compared to their initial expectations. Being in control of their labour and birth processes was the major theme identified. Being in control meant different things to different women. For some it involved being a part of the decision making process together with the healthcare personnel, while for others it was wider ranging, involving control over the labour process itself, and control over their own emotions and behaviour (ibid.).

Confidence in her ability to cope seems to be a major factor in how a woman approaches, manages, and feels satisfaction with labour and birth (Goodman, Mackey, & Tavakoli, 2004). A woman who experiences a sense of personal control throughout the birthing experience, in particular the ability to manage contraction pain, will be more likely to express a higher level of satisfaction. Indeed, Campero, Garcia, Diaz, Ortiz, Reynoso, and Langer (1998) claim that control is the “key component in a satisfactory labor process” (p. 397). Thus handing over personal control of her birthing process may have unwanted psychosocial consequences for the mother, her infant and the family as a whole (Bradley, 1996; Lorhian, 2008).

FEAR AND ANXIETY

Women have expectations of what the birthing experience will be like, and these expectations affect how they anticipate and approach the birth of their children (Gibbins & Thomson, 2001). Vincent (2008) described how, in her experience as a midwife, many New Zealand women feel fearful and unable to cope with both the prospect and the actuality of giving birth. Using the Pregnancy Related Anxiety Questionnaire among over 200 Dutch women Huizink, Mulder, de Medina, Visser, and Buitelaar (2004) found support for the argument that pregnancy anxiety is an entity that is distinct from general anxiety. They found that it is stimulated by a fear of not knowing what to expect, or what to do about what eventuates. This theory is supported by the findings of a study of 74 Swedish women during labour by Alehagen, Wijma, and Wijma (2001). Using the Delivery Fear Scale (DFS) Alehagen et al. (2001) found that fear, particularly through the early stages of labour, was more predominant in first-time mothers who have yet to experience giving birth. Alehagen et al. (2001) observed that facing a feared situation caused the release of stress hormones which could affect how the labour progressed, and this could result in longer labours that caused the woman to become exhausted. Gunning (2008) concurred that increased stress hormonal levels in the mother’s bloodstream could reduce the supply of blood available to the baby; she concluded that studies have shown severe stress during childbirth is toxic to both the baby and the mother, although she introduced the possibility that moderate levels of worries may be helpful by stimulating active preparation to labour.

PAIN AND PAIN MANAGEMENT

Childbirth is likely to be one of the most painful things a woman will ever experience (Lally, Murtagh, Macpbal & Thomson, 2008). Pain is one of the important factors that puts a woman at risk of having a negative birth experience, although it is not nearly as significant as the effect of support (Waldenstrom et al., 2004). While there are many options for pain relief during labour and delivery there are also psychological factors which moderate the need for pain relief. One of the most well supported findings is that continuous one-to-one support will reduce a woman's need for analgesia (Hodnett et al., 2005). There is a wealth of data suggesting that a woman's relationship with her midwife will moderate her experience of pain (see Lundgren & Dahlberg, 2002). While complete blocking of pain is possible, using epidural analgesia, there are some distinct disadvantages (O’Sullivan, 2009) making it a second-line treatment. Huizink et al. (2004) suggested that fear worsens the perception of the pain experienced during labour and birth and that this increased sensitivity to pain increases the fear, thus creating a spiralling increase in the pain experienced. Previous birth experiences can also increase both pain and fear (NilssonNylund & Lundgren, 2009). In a study examining epidural analgesia it was found that fear and pain levels were highly correlated (Aleghan et al., 2005), leading to the assumption that reduction in either will decrease the other. It has also been found that women often enter labour with unrealistic expectations of levels of pain. Thus being unprepared for degree of pain when it comes leads to loss of control, engagement, and lower satisfaction with the birth experience (Lally et al., 2008). Such findings give support to Vincent’s (2008) claim that, in her experience as a New Zealand midwife, lack of labour management skills can result in an increased perception of the pain during labour.

CONFIDENCE AND SELF-EFFICACY

According to Bandura (1977) social and self-regulatory skills, and self-belief in personal ability are the necessary components of controlled behaviour. This sense of control is referred to as self-efficacy, encompassing the sense that the individual can control her or his motivation, have control over her or his environment and, as a result, have control over her or his behaviour and associated outcomes. When self-efficacy is low instruction alone will not motivate people to take control of their behaviours in particular situations. Bandura (1977) also emphasised the necessity of developing relevant behavioural skills acquired sufficiently early as to enable the individual to internalise them so that she or he is capable of self-motivation to exert personal control in any given event.

Being able to translate an understanding of a particular situation into the appropriate
application of relevant skills is necessary if one is to exert control over one’s behaviour in a demanding situation such as childbirth. Another factor, that Bandura (1977) advocated as essential to maintaining a sense of personal control in situations where the individual feels vulnerable, is being able to connect with or strengthen social support when required. Manning and Wright (1983) examined how 52 American women’s thoughts about labour and birth affected their actual experience of the event. They found that a questionnaire measure of self-efficacy was a better predictor of pain management without medication than any other variable tested. In their review of literature on childbirth preparation and pain, anxiety and stress reduction, Beck and Siegel (1980) concluded that confidence that comes from effective preparation has positive effects on how women cope during labour and birth. When a woman is confident that she can cope with the process of giving birth, her ability to reduce her perception of the pain of contractions is strengthened (Manning & Wright, 1983) and her birth satisfaction is enhanced.

OUTCOME EXPECTATIONS

In a recent review Lally et al. (2008) reported that women often enter childbirth with unrealistic expectations. When outcome matches a woman’s expectations of how her labour and birth will progress, her satisfaction with her birth experience is enhanced (Manning & Wright, 1983). Self-efficacy and outcome expectancy were closely correlated in Manning and Wright’s study and they argue that these perceptions are difficult to differentiate. Both were factors that contributed to a sense of mastery important for birth satisfaction. In their national survey of the birth experiences of over 2,500 Swedish women, Waldenstrom et al. (2004) found that 6.8% of their participants had endured a traumatic negative birth experience. They claim that many more women endure birthing processes that are less than satisfactory. They found that unexpected medical interventions such as induction, augmentation, emergency caesarean delivery and the necessity of placing the newly born infant in intensive care were all risk factors that saw women perceive their birthing processes as negative birth experiences. Indeed, 34% of 122 Swedish women who had undergone an emergency caesarean section described a traumatic experience in a survey of their birth stories (Tham, Christensson, & Ryding, 2007). Taken together these studies suggest that education about childbirth options and possibilities might enhance women’s experience by providing more broad expectancies.

DEPRESSION

Negative birthing experiences, particularly unexpected caesarean sections, may inhibit the healing process and may be a factor contributing to postpartum depression (DiMatteo et al., 1996; Garel et al., 1990). Ip and Martin (2008) found that the level of confidence a woman felt as she entered her labour was predictive of postpartum depression among 120 Hong Kong Chinese mothers. Postpartum depression inhibits or even halts the development of a sense of being a capable and effective mother (Cutrona & Troutman, 1986). In a meta-synthesis of studies on postpartum depression, Beck (2002) noted that up to 13% of women who give birth will experience postpartum depression at some stage during their child’s first year. An already challenging role transition for the new mother is greatly exacerbated by postpartum depression, and there are serious psychosocial consequences for a mother and her child (Field, 1998).

PREPARATION AND TRAINING FOR CHILDBIRTH

Because the possible consequences of negative birth experiences can be severe for mothers, children and families as a whole, it is imperative that interventions, that will improve how women anticipate and experience birth, are developed to supplement the existing antenatal education facilities currently available and to support midwives in their core role. The goal of the New Zealand developed programme The Pink Kit (Common Knowledge Trust, 2004) is to help the pregnant woman understand what is happening to her body and, as a result of using the programme, to teach herself birthing skills relevant to her own body shape and needs. With this specific training it is believed she will be more likely to have the knowledge to work with her baby’s efforts to be born.

Vincent (2008) described how the skill level of the birthing women in New Zealand is generally low, resulting in increased pressure on the healthcare personnel during the birthing process. She described how she, and many of her fellow midwives, would like to see the skills of women giving birth improved to the point where they choose to take control of their own processes, relying on professional assistance only when medical difficulties are experienced.

The authors of The Pink Kit (Common Knowledge Trust, 2004) argue that the labour is generally shorter and complications are fewer when the woman is skilled and able to deliver vaginally. A review by Klaus (1998) supports this, given that the attachment process may be assisted by the release of the hormone oxytocin into the systems of both mother and child, which is stimulated for both during breastfeeding and skin-to-skin contact. Klaus (1998) also noted that allowing the infant to remain with the mother reduces the indications of distress displayed by the infant. Mothers able to interact positively with their infants immediately after birth have been found to be more positive about their infants and to feel more confident in handling their infants at six weeks postpartum. Bradley (1996) argued that using natural birth processes when giving birth makes the experience joyful for both parents and a day of celebration for all concerned. In contrast, recent studies have suggested that a pregnant woman’s levels of social support and other relationship variables are more important for her birth experience than childbirth education (e.g., Hodnett, 2002; Waldenstrom et al., 2004).

SOCIAL SUPPORT

Waldenstrom et al. (2004) reported that some of the most important risk factors for negative birth experiences were social factors. These factors may be seen as beyond the control of care providers and include relationship issues with partner and family.

Using self-report data from over 2,000 Canadian women at a mean gestation of 24 weeks, Glazier, Elgar, Goel, and Holzapfel (2004), found that good social support had positive consequences for both the birthing process and later. British women have said that positive support from both midwives and partners (which included caring, information giving and recognition that the woman could be actively involved in decision making) assisted them in maintaining a sense of personal control throughout their birthing processes (Gibbins & Thomson, 2001). This was supported by Halldorsdottir and Karlsdottir (1996) who found that Icelandic women expressed a strong need for understanding and caring from those who were a part of their birth experience. This social support enabled them to feel a sense of security they considered important for a positive birth experience.

CONTINUOUS SUPPORT

Having someone available to offer continuous emotional, informational and physical support from the onset of labour until after the delivery, and knowing that this support will continue
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REFERENCES