Midwifery 68 (2019) 9–14

Contents lists available at ScienceDirect

Midwifery

journal homepage: www.elsevier.com/locate/midw

Knowledge and use of sterile water injections amongst midwives in the United Kingdom: A cross-sectional study

Nigel Lee[a,b,*], Julie Jomeen[d], Lena B. Mårtensson[e], Vanessa Emery[f], Sue Kildea[a,b,c]

[a] School of Nursing, Midwifery and Social Work, University of Queensland, St Lucia, Queensland 4072, Australia
[b] Mater Research Institute-UQ, Aubigny Place, Raymond Terrace, South Brisbane, Queensland 4101, Australia
[c] Mater Mothers' Hospital, Mater Health Services, Raymond Terrace, South Brisbane 4101, Australia
[d] Faculty of Health Sciences, University of Hull, Cottingham Rd, Hull HU6 7RX, UK
[e] School of Health and Education, University of Skövde, P.O. Box 408, Skövde SE-54128, Sweden
[f] Bradford Teaching Hospitals NHS Foundation Trust, Bradford Royal Infirmary, Duckworth Lane, Bradford BD9 6RJ, UK

ARTICLE INFO

Article history:
Received 28 February 2018
Revised 7 September 2018
Accepted 2 October 2018

Keywords:
Sterile water injections
Labour
Pain relief
Midwifery practice

ABSTRACT

Background: The use of sterile water injections (SWI) for the relief of pain in labour is popular amongst midwives in countries such as Sweden and Australia. Anecdotal reports suggest the procedure is used less commonly in the United Kingdom (UK) and that a number of barriers to introducing the practice may exist.
Objective: The objective of this study was to explore the awareness and use of SWI amongst midwives in the UK.
Design: A cross-sectional study using an internet-based questionnaire.
Participants: Midwives with Nursing and Midwifery Council Registration and currently practicing.
Setting: The questionnaire was distributed via the Royal College of Midwives Facebook page and Twitter account. Invitations to participate were also sent to Heads of Midwifery to distribute to staff.
Findings: Three hundred and ninety-eight midwives completed the survey. Eighty-two percent of midwives did not use SWI in practice although 69% would consider learning the procedure. There was considerable variation in techniques amongst midwives that did provide SWI. The lack of available practice guidelines and the advice from the National Institute for Health and Care Excellence to not use SWI were cited as the main barriers.
Key conclusions: SWI use is uncommon in the UK although midwives are interested in incorporating the procedure into practice.
Implications for practice: National guidance on SWI and the lack of information and training is restricting the use of the procedure in practice, despite SWI being widely used in other countries and being effective in the treatment of pain in labour.

© 2018 Elsevier Ltd. All rights reserved.

Background

Up to 75% of women may experience back pain during labour with 30–45% reporting the pain as both continuous and severe (Melzack and Schaffeberg, 1987; Tzeng and Su, 2008). In a qualitative study of labouring women's experiences of back pain, participants described the sensation as crushing and stated the level of intensity limited their mobility and altered their plans for pain relief (Lee et al., 2015). Back pain is more common in nulliparous women and associated with the latent phase of first stage labour (prior to four centimetres of cervical dilation) (Lee et al., 2013). The intensity of the pain may increase as the labour progresses and early intervention is recommended (Tzeng and Su, 2008).

Managing back pain in labour and the administration of SWI

The literature identifies three non-pharmacological strategies that may be used specifically for the treatment of back pain in labour: acupuncture, transcutaneous nerve stimulation (TENS) and sterile water injections (SWI) (Labrecque et al., 1999; Martensson et al., 2008). Of the three, SWI has been demonstrated to be more effective than either acupuncture (Martensson and Wallin, 1999), TENS or more general non-pharmacological approaches such as massage or water immersion (Labrecque et al., 1999). SWI involves the injection of between 0.1 and 0.5 millilitres (ml) of sterile water

* Corresponding author at: Midwifery Research Unit, Mater Research Institute-UQ, Aubigny Place, Raymond Terrace, South Brisbane, Queensland 4101, Australia.
E-mail address: nigel.lee@mater.uq.edu.au (N. Lee).

https://doi.org/10.1016/j.midw.2018.10.001
0266-6138/© 2018 Elsevier Ltd. All rights reserved.

into the intradermal or subcutaneous layers of the skin surrounding the lumber region (Michaelis rhomboid) of the lower back (Mårtensson et al., 2017). The injections results in a brief but intensely painful sensation followed rapidly by the onset of analgesia which can last for up to two hours; it may be repeated as many times as required (Martensson and Wallin, 2008b). It is theorised that the brief episode of noxious stimulus triggers the body's own pain modulating systems such as the gate control theory, where intense stimulations of competing nerve fibres result in a diminished perception of pain from the slower visceral fibres associated with back pain (Melzack and Wall, 1965). The release of endorphins similar to those demonstrated in Diffuse Noxious Inhibitory Controls may also contribute to the analgesia experienced (Le Bars et al., 1992).

Whilst previous systematic reviews and meta-analysis have highlighted the potential of SWI to provide a safe, effective and low technology analgesic option that is suitable for all maternity care settings and models of care (Hutton et al., 2009; Martensson and Wallin, 2008b), the 2012 Cochrane review identified potential issues with the existing evidence and recommends further research to report more clinically relevant outcomes (Derry et al., 2012). SWI is frequently used in Scandinavian countries such as Sweden (Martensson and Wallin, 2006) and is becoming increasingly popular amongst midwives in Australia (Lee et al., 2012). However, there is no data regarding the utilisation of SWI by midwives in the United Kingdom (UK), the extent of awareness of the procedure, availability, clinical application or techniques used. The first author has provided assistance to a number of maternity units in the UK in the form of information, training materials and support for clinical governance processes. Some of these maternity units have reported difficulties in introducing SWI due to the very limited availability of information within NHS Maternity Units and resistance from clinical leaders unfamiliar with the procedure. A contributing factor may also be the lack of support for SWI in the National Institute for Health and Care Excellence (NICE): Intrapartum Care guidelines (2014). However, there is no specific data available on the challenges and barriers encountered by practitioners within the UK wanting to introduce SWI.

Methods

Study aim and design

The aim of this study was to describe the knowledge and practice of SWI by UK midwives. The study employed a cross-sectional design via an electronic, internet based survey, adapted from similar surveys conducted in Australia (Lee et al., 2012), Sweden (Martensson and Wallin, 2006) and the USA (Martensson et al., 2008a). The survey was organised into three distinct parts. The first section contained 10 questions collecting demographic data such as age, original midwifery qualification, main area of clinical practice and geographic location. This part was to be completed by all respondents. Then respondents were directed to one of two sections of the survey depending on their response (yes or no) to a question regarding their current use of SWI in practice. Those answering 'No' then completed 11 questions regarding their level of knowledge of SWI, whether they would consider its use in practice, preferences for training and information, what barriers they may or had encountered regarding the introduction of SWI to their workplace and their current management strategies for back pain in labour. Those respondents that indicate current use of SWI were directed to 15 questions regarding use in practice, effectiveness, variations in injection techniques and information supplied to women. Both the latter two sections contained free text areas in some questions for participants to respond with their own experiences and opinions.

Survey distribution and participants

We were aiming to reach practicing midwives in the UK (England, Wales, Scotland and Northern Ireland) with current Nursing and Midwifery Council Registration. As the largest professional representative organisation for midwifery in the UK the researchers negotiated with the Royal College of Midwives (RCM) to distribute an electronic link for the survey to the membership. The usual approach by the RCM was to offer research surveys to a random sample of 1000 midwives on the RCM membership email list, however this was not available due to a change in RCM policy governing distribution of external surveys, so an invitation to participate in the survey including the survey internet address was published in the Letters page of the RCM Midwifery Magazine. This approach resulted in only six completed surveys. An invitation to participate and an electronic link to the survey was then posted on the RCM Facebook page (approximately 41,000 followers) and distributed via the RCM Twitter account approx. 29,700 followers). The tweet included a request to retweet (RT) to assist in distribution. Two reminder tweets were sent during the following seven days. At the same time an email containing a link to the survey and an invitation to participate was sent to a number of maternity units ($n = 156$) via the Heads of Midwifery network with a request to distribute to midwifery staff. We have no way of knowing how many people received this invitation or viewed the Facebook and twitter posts.

Ethical and governance issues

The introductory page of the survey detailed the purpose of the study, the inclusion criteria, and the voluntary nature of participation. However, there was no process for confirming if respondents met the inclusion criteria. There was no formal consent process required; it was considered that if potential respondents followed the link from the introduction to the commencement of the survey this implied an acceptance of the invitation to participate. Ethics approval for the survey was provided by the University of Hull; Faculty of Health and Social Care Research Ethics Committee (Ref. 192) and the University of Queensland Human Research Ethics Committee (2015001182). As this low-risk study was a collaboration between researchers at the University of Hull, University of Queensland and Mater Research Institute a three party collaborative research contract with agreement on study indemnity was required, this process took over 12 months to complete.

Sample size and data analysis

At the time the survey was undertaken the number of midwives registered with the NMC was estimated to be 43,168 including those with both Midwifery and Nursing and/or Specialist Community Public Health Nurses registration. For a representative sample with 95% confidence level and 5% margin of error a total of 381 surveys would be required. Data were analysed using Stata statistical software (Stata Statistical Software: Release 14, StataCorp LP, College Station, TX, 2015). Descriptive statistics were calculated for all variables including percentages, mean, standard deviation, median and range as appropriate. Where missing data occurred due to participants not responding to all questions in the survey, percentages for the actual number of respondents are given. A simple content analysis categorised responses to the open-ended questions.

Findings

Three hundred and ninety-eight midwives undertook the survey. A further 23 supplied only demographic data, not responding to the question regarding SWI use, their data were not included in

Download English Version:

https://daneshyari.com/en/article/11009027

Download Persian Version:

https://daneshyari.com/article/11009027

Daneshyari.com