

Newborn bloodspot screening test



**ASSIGN
BUSTER**

This reflection is on the use of the Newborn Bloodspot Screening Test (NBSST), which is undertaken when the newborn is between five and eight days old. I will discuss how the use of this screening test supports the assessment and well being of the newborn. The model of reflection implemented within my assignment will be the Gibb's reflective cycle (1988). I have selected this model due to the simplicity, as it guides you through the six stages of the reflective process by asking a series of questions, allowing the experience to be transformed into knowledge.

Throughout this assignment I will be maintaining confidentiality in accordance with the Nursing and Midwifery Council (NMC) Standards (2004). I will therefore use pseudonyms to ensure the identity of my mentor and clients, remain anonymous. For the purpose of this assignment my mentor will be known as 'Michelle', the newborn will be known as 'Theo' and his mother as 'Hannah'.

Using the Gibb's reflective cycle (1988), the first stage is to describe the event. The event upon which I am reflecting is the NBSST which I performed under the supervision of my mentor Michelle, when Theo was five days old at his home. This was undertaken with the consent of his mother Hannah who was present and observed the test being carried out.

The second stage of the Gibb's cycle (1988), is to explore the feelings regarding the event. The view proposed by Bulman (2004, p. 141) is that when we least expect it feelings can often affect our learning. Therefore to mention a range of feelings encountered, and the situation in which they occurred, can be useful to the learning experience.

I felt in such a privileged position to be undertaking the screening test on Theo as a student midwife under the supervision of my mentor. The NMC Standards (2004), state that, every woman has the right to refuse a student to be involved in their care. Therefore Hannah had the right to refuse consent for me to perform the test, however as I had been involved in her antenatal care and built a rapport with her she was confident for me to proceed. I felt that I had gained both Hannah and Michelle's trust this gave me increased confidence in my ability and practice.

My mentor held Theo securely in an upright position while I warmed the heel by gently rubbing it, as recommended by Michelle. After washing my hands I cleaned the area on the heel I was going to use to perform the test. Then using the automated lancet I made a small incision in the skin, Theo let out a high pitched cry and Hannah became a little distressed. Following the instructions on the test strip I wiped away the first drop of blood to avoid contamination and subsequently dropped four good samples of blood onto the filter paper of the test strip. As soon as I had finished the test I placed a plaster on the heel and gave Theo immediately to Hannah for a comfort feed. I then filled out the information that was required on the test strip and documented the procedure in the maternity record and the Baby notes. I then notified Hannah she would receive the results in approximately six weeks time and this would be by her health visitor or general practitioner, if there was any cause for concern she would be notified sooner rather than later. The testing strip was then posted the same day as per the instructions.

Although the procedure went well I did however feel slightly anxious when performing the test, as I was concerned about the number of times I would

need to puncture the skin and how distressed Theo would become throughout the procedure.

I felt comfortable after successfully obtaining enough blood samples for the test using the technique my mentor had provided me with and relieved that I had caused minimal distress to Theo and reassured as he was easily comforted following the distress of the test.

Evaluation is the next stage in the Gibb's (1988), reflective cycle. As suggested by Taylor (2006) evaluation is the element of the process in which the situation is reviewed in light of all the feelings gained. Upon evaluating the experience I believe I had successfully performed the technique, and in doing so had enabled me to collect satisfactory samples for the test. I had excellent communication with Hannah and the continuity of care from the antenatal to postnatal period had enabled her to trust me and my confidence had grown immensely. I had been out on community placement, before so my knowledge base had increased so I was therefore able to use this and the skills I had learnt from my mentor to inform my practice. The negative aspect of the experience was the concern for Theo regarding the pain he would feel when attempting the test, and the high pitched cry that he released upon puncturing the skin was quite distressing for me and his mother Hannah.

Following the evaluation of the experience, the Gibbs's reflective cycle (1988), states that analysis of the situation is undertaken exploring the experience in greater detail. The NBSST is undertaken on a national scale, the UK Newborn Screening Committee (NSC) (2005), test the samples for

metabolic disorders which can be treated, such as Phenylketonuria, Congenital Hypothyroidism, Sickle Cell Disorders, Cystic Fibrosis and Medium Chain Acyl-CoA Dehydrogenase Deficiency. The disorders screened for are subject to regional variations, however in my local placement area, all of these conditions are currently tested for as recommended by the NSC (2005).

The purpose for conducting this screening test, is to detect the disorder at a stage early enough to introduce effective treatment to prevent the disease or condition from affecting the newborn's development (Johnston, Flood & Spinks 2003).

The NBSST is not a compulsory test, the National Institute for Clinical Excellence (NICE) (2006), state that for the well being of the newborn, the test must be offered to all parents when their newborn is five to eight days old. They also suggest that the parents should be encouraged to be present when the test is undertaken. This was performed on Theo the fifth day after delivery and Hannah was present for the procedure.

The UK Newborn Screening Programme Centre (UKNSPC) Guidelines for Newborn Blood Spot Sampling (2008) (Appendix 3), state that women should be provided with the relevant screening leaflet in the third trimester and no later than 24 hours prior to conducting the test. This has been developed to enable parents to make informed decisions about the screening and well being of their newborn. However a study undertaken by Cavanagh, Coppinger & Franck (2005), found that all midwives involved in the study gave information to parents prior to the test, although there were large

variations in the timing and frequency in both the antenatal and postnatal period.

The UKNSPC (2008) also state that the test should ideally be performed on day five and verbal consent from the parents is required and must be documented in the maternity record and the baby notes. The NMC (2004) also states that midwives must provide the woman and her family with the information to allow them to make informed choices about the care of their newborn in a form that they can understand, and maintain accurate record keeping. McCullough & Chervenak (2008), state that informed consent requires the physician to firstly disclose information to the client and must then obtain the client's acceptance or refusal. They must disclose 'material' information, this being what the client needs to know regarding the procedure and what a person of average sophistication should not be expected to know (McCullough & Chervenak 2008).

This was carried out with Hannah on the visit prior to performing the test, I had asked Hannah to read the leaflet she had been given on discharge from the hospital prior to giving her permission for the test. On the day of the test before I proceeded on Theo I asked Hannah if she had read and understood the leaflet and if she had any questions, she confirmed this and had no questions, Hannah then gave verbal consent for me to continue. Upon completion of the procedure I fully documented the information in Hannah's maternity record and Theo's baby notes.

Cavanagh, Coppinger & Franck (2005), stated in their study that prior to performing the test, the warming of the newborn's foot was undertaken in

most instances. However Janes et al. (2002), found in a controlled trial that there showed no differences in the time taken to collect blood, the number of repeat procedures required or the behavioural responses of the newborn, between warmed or un-warmed heels. The study performed by Cavanagh, Coppinger & Franck (2005), showed that the positioning of the newborn for the test also varied, despite strong evidence to suggest that the newborn should be in a secure position and cuddled when undertaking the test. The UKNSPC (2008) state in their multi professional guideline an automated lancet should be used on the heel and that the heel should be warm and in most cases additional pre-warming should not be required. They also state that the newborn should be cuddled in a secure position for the taking of the sample. Upon performing the test on Theo I rubbed the heel to warm it as recommended by my mentor and Theo was held by my mentor whilst the test was carried out. The NMC (2004), state that other health professionals should be involved in the care of the woman or baby, when a situation deviates from the midwives normal responsibilities. I therefore advised Hannah that she would be notified of the results in approximately six weeks time by her health visitor, and if there were any concerns then both the health visitor and General Practitioner would be notified and she would be informed as soon as possible.

Shepherd, Glenesk, Niven & Mackenzie (2005) suggests that the procedure of the screening test is easy to complete however the pain experienced by the newborn and the anxiety of the parents is of concern. When performing the test on Theo I was successful in obtaining a satisfactory sample with only

one incision however it was evident that this had caused pain due to the immediate cry upon commencement.

In conclusion the neonatal screening test is an important element of the care and well being of the newborn, if these conditions are identified, early treatment can improve health and prevent severe disability or even death (NSC 2005). The new guidelines published by the UKNSPC (2008) reflect the findings from studies I have researched and are based on the recommendations concluding the studies.

My action plan for the future is use to evidence based practice when performing the NBSST taking into account the factors highlighted in this assignment with regards to warming of the heel and positioning of the newborn. I am confident in my skills with regards to the incision using the lancet and my communication with the parents.