CREATING STORIES FOR LEARNING ABOUT THE NEONATAL CARE EXPERIENCE THROUGH THE EYES OF STUDENT NURSES:
AN INTERPRETIVE, NARRATIVE STUDY

ABSTRACT

Background; Storytelling is an increasingly well recognised and valued platform to learn about the human experience within healthcare. Little is known however about how stories can enhance understanding in neonatal care, a specialised field offering rich opportunities for learning. This study focuses on the creation of stories based on the experiences of student nurses to inform teaching and learning strategies in the neonatal field.

Objectives; The study aimed to create stories from the narratives of student nurses working within the neonatal field and identify what key themes for learning emerged in order to develop a storytelling resource to share experiences with their peers.

Design; An interpretive, constructivist approach was used to collect, analyse and create stories from student nurse’s experiences, in line with narrative inquiry.

Participants; Six pre-registration children’s nursing students were selected by purposive sampling.

Settings; Interviews were undertaken within six weeks following placement completion in an agreed location.

Methods; Narratives were obtained by semi-structured interviews. Narrative analysis and core story creation was undertaken to construct stories and key learning themes emerged which provided the pedagogical basis for subsequent digital resource development.

Findings; Key themes emerged relating to the insight and observances of student nurses and the neonatal journey they had experienced, including the nature of neonatal care, experiences of the neonate and parents, the environment and their own learning transition. Preliminary
peer evaluation of the storytelling resource revealed storytelling as an interesting and novel approach to teaching & learning, learning from ones’ peers, preparation for practice and a valuable insight into a new specialist area.

**Conclusions:** The study has value to teaching and learning by enabling an appreciation of how narrative can be used to portray the experiences of learners. Findings also support an approach to analysing narrative to create stories for learning and inform subsequent digital resource development.

**KEY WORDS**

Stories for learning
Core story creation
Student nurse narratives
Peer learning

**INTRODUCTION**

This study focuses on the creation of stories from the narratives obtained by interviews with children’s nursing students, as a means of learning about and understanding the neonatal care experience. Storytelling is an important strategy in the provision of healthcare, whatever speciality (Hardy and Haigh, 2011). Its importance has been realised in recent decades and is now an increasingly well recognised and valued platform to learn about the human experience. Due to the fact that the healthcare environment is increasingly using technology to collect depersonalised information and data within healthcare systems, storytelling has
personal appeal (Davidhizar and Lonser, 2003; Stacey and Hardy, 2011). It offers us a unique way to share information that is more personally meaningful than statistics and to consider the patient as a central concept (Fix et al, 2012). In this environment that can potentially detach health professionals from their patients, stories offer a compassionate approach that respond to emotional need rather than data driven targets, computerised checklists or form filling, however essential these may be. The need for such a compassionate and ‘person-centred’, humanistic approach to care delivery is seen as essential in today’s healthcare climate at national level and the neonatal speciality is no exception.

**BACKGROUND**

Within the literature, work has mainly emerged from the medical profession and the adult nursing field that has explored learners’ perspectives on the use of storytelling for teaching and learning (Hughes and Huby, 2002; Paddam et al, 2010; Wright et al, 2014). Within the author’s professional discipline, the field of children’s nursing had produced more limited research into the value of narrative (DasGupta, 2007; Green et al, 2015). This is even less prevalent within the specialty of neonatal care, the author’s area of specific interest and the focus of the current study. The neonatal speciality offers a wide range of learning opportunities relating to the physical and psycho-emotional care of vulnerable, sick and small babies and their families which are often challenging and complex. It follows then, that here is much to learn from those who have experienced being part of such a specialised environment such as parents, health professionals and learners themselves. In relation to the latter group, student nurses who work within specialised areas such as neonatal care for their practice placements are exposed to very new and challenging learning demands. However, their experiences have not been explored so little is known about them but more importantly
in the context of nurse education, how they can be used to enhance teaching and learning for those new to working in this field. This study focuses therefore on the creation of stories from the narratives of student nurses and how they have informed subsequent resource development as a strategy to enhance understanding and learning about the neonatal field.

Storytelling in a research context is part of narrative inquiry; research that captures personal and human dimensions of experience over time, and takes account of the relationship between individual experience and context (Clandinin and Connelly 2000; Lorem, 2008). The integral connection between stories and narrative can be viewed within the theoretical perspective of constructivism; that is how we ‘construct’ our own meaning and understanding of the world by building on previous knowledge and experience through narrative. Bruner (1996) speaks of narrative ‘structuring’ whereby we produce knowledge of something by showing how it interacts with other parts in contributing to a whole. He also argues that story making is central to creating an understanding of the world.

Polkinghorne also argues that narrative knowledge is maintained in emplotted stories (Polkinghorne, 1995). Definition of ‘story’ in the context of the present study stems from this theoretical perspective of narrative; a story is a real or imagined account, or plot, of events that is constructed from experience and context and is interpreted to generate knowledge; in other words, a plot makes narrative understandable and clarifies connections between events.

In the present study, narrative is the starting point, in other words, the raw, unstructured whole account that is acquired from whoever has lived through and offered their version of experience. The story that then is created is a reconfiguration of the narrative, an account that relays significant events and constructed to relay meaning and chronology, with a beginning,
middle and ending in the context of a plot. The latter is also discussed by Emden (1998), who uses Polkinghorne’s term ‘emplotment’. In relation to the neonatal care context, the story in the form of a plot is akin to how we often view the neonatal ‘journey’, from the start of life (prenatal events), birth (first vital transition) and through the varying dependency levels of neonatal care until the transition to the home environment and beyond. These transitions are a vital part of the neonate’s emplotted journey.

A limited amount of research has used plot creation as a way to organise and make sense of narrative. Haidet et al (2006) undertook sixteen qualitative, in-depth interviews with primary care patients and using their illness narratives, developed a narrative framework for each one including characters, where they were positioned, a start and end point with the events positioned in between, in the form of a plot. Findings revealed a level of complexity to patients’ healthcare participation and this was explained by thematic story elements that the authors felt were ‘in dynamic interplay’, revealed from the storied narratives. Therapeutic emplotment has also been documented as being a narrative construction of lived time such as that used in field of psychiatric medicine where the creation of story-like structures have emerged through therapist-patient interactions (Mattingly, 1994; Tropea et al, 2012). In neonatal care, a descriptive study by Korhonen and Kangasniemi (2013) analysed nurses’ narratives with Polkinghorne’s model of narrative analysis and emplotment principle. They described the relationship between nurses and parents as a plot starting with formation, through the process caring for the baby over time leading to when this relationship ended.

Kelly and Howie (2007) continued this ‘storied’ outcome focus in a study undertaken that explored the use of nurses stories to examine the effect of therapy on professional practice in psychiatric nurses. They described an eight staged narrative analysis approach of emplotment.
taking principles from Polkinghorne’s model. This comprised: connecting with someone’s life story, scrutinising the life events, chronologically ordering events, core story creation, verification, plot examination and theme identification, examination of plot structure ending with the resultant emplotted whole narrative. The final product was a narrative construct that gave meaning and understanding to the data. They concluded nurses’ stories can be an effective means of exploring, comprehending and conveying nursing practice principles.

Finally, to re-iterate an earlier point, there is a gap in both the literature and practice development in terms of how stories are used to enhance learning and in the development of storytelling resources tailored to the needs of a speciality such as neonatal care. This present study therefore takes up these key points, striving to explore how this can be achieved and how storytelling can contribute to teaching and learning in this area. Furthermore, as little is known about how experiences and narratives of student nurses who have worked in such a specific area of care for the first time can be used to inform others, it is their stories of interest here.

**OBJECTIVES**

Leading on from the above context, the research question posed is: What can be learnt about the neonatal care experience from creating stories constructed from student nurses’ narratives?

The study aimed;

- To develop stories from the narratives gained from student nurses working within the neonatal field using one form of narrative analysis.
• To identify what key themes for learning emerged from the stories with view to them being used to share perspectives and enhance learning in others about the care experience within this speciality by the eventual development of a digital storytelling resource.

**DESIGN**

This study adopted an interpretive paradigm; that is where the purpose is to assign meaning and explain phenomena in order to arrive at shared meanings with others. This is fitting with the theoretical perspective of constructivism outlined earlier where meaning making is central and an emphasis is placed on co-creation and sharing of knowledge.

**PARTICIPANTS**

Six student nurses undertaking the children’s pre-registration programme who had completed a placement in a neonatal unit within 4-6 weeks were selected and interviewed. The group comprised five female and one male participant which is congruent with the usual gender balance in children’s nursing. There were two first years, three second years and one first year student allowing stories to be collected across the whole breadth of training levels. However, all were completely new to neonatal care and had not been on a previous placement in this area.

The sample was purposefully small due to the subsequent digital resource development and the need to avoid overload of content for both it’s creation and the eventual usability by the
learner. Six selected stories was deemed to be sufficient for such a purpose since this was also a new idea for resource development.

**Selection:** Participants were selected by purposive sampling, a form of non-probability sampling where specific predefined criteria were identified; in this case, student nurses attending a neonatal placement during their pre-registration children’s nursing programme over June-August inclusive 2015. They were approached within 2 weeks of completing their placement to ask if they would be interested in participating and an information sheet was given allowing them time to read this and consider their involvement. This was followed up within an agreed time and a date set, if agreement went ahead, for signing a consent form followed by interview.

**Ethical considerations:** Approval was sought and obtained from the author’s Higher Education Institute (HEI) Ethics Committee without conditions. Consideration was given to confidentiality and storage of interview data, potential emotional effects of relating experiences in a challenging area along with offering support strategies to address this, the relationship between participant and the researcher (author) and the need for informed consent. The latter was obtained from the participants for both the interviews and subsequent use of their transcripts for story creation and resource development. The study was undertaken as an early stage of a Doctorate in Education so supervision was given throughout.
SETTINGS

Interviews were carried out in a private, neutrally agreed venue negotiated between the researcher and participant. This was set apart from the neonatal unit itself. Resource development took place within the researcher’s School within their own HEI.

METHODS

The methods used comprised the following stages:

- 1a: Semi-structured interviews
- 1b: Transcription.
- 2a: Analysis stage 1: Core story creation.
- 2b: Verification of the stories.
- 3: Analysis stage 2: Thematic analysis

Each of these components shall be now discussed in turn.

Stage 1a: Interviews.

Individual interviews with each of the participants were conducted to collect narratives which were voice recorded; these were semi-structured starting with an open ‘single question aimed inducing narrative’ (SQUIN) as put forward by Wengraf (2009). A SQUIN is intentionally broad aiming to provide a means of eliciting data allowing participants to begin and construct their narrative on their own. The SQUIN was designed to enable the students to talk through their whole experience on the neonatal unit. However, questions were also prepared for further information and to elicit more rich data. It is acknowledged that interviewees may
need further questioning if they do not know what further to say, necessitating further probing (Corbally and O’Neill, 2014).

1b: Transcription.

This was undertaken manually and yielded six raw transcripts of written narrative. Riessman (2008) suggests that transcription is not always necessary: however, the decision was made to transcribe from audio to written formats to make an ‘end-product’ that was tangible and to make the story creation more manageable.

2a: Analysis stage 1.

Narrative analysis is one type of qualitative analysis that explores the data specifically looking for stories (Lichtman, 2012). In line with this, the first stage of analysis involved creating stories from the transcribed narratives. The study used ‘core story creation’ using the principles of emplotment based on the work of Emden (1998) discussed earlier which has more recently been used in the aforementioned study by Kelly and Howie (2007) (see Figure 1).

Rationale for the use of this strategy centres around its’ links with the constructivist theoretical approach. This method of analysis is also influenced by Bruner and his narrative ‘structuring’ described earlier, as well as Polkinghorne who places the concept of narrative structuring in research terms. In relation to this type of inquiry, the data collected consisted of actions, events and happenings. The subsequent data analysis involved their synthesis and configuration to produce or construct stories as one of the outcomes of the research process. The latter is akin to what Bruner terms ‘story making’ as referred to in an earlier section.
As seen in Box 1, Emden and Kelly and Howie’s approach to core story creation involves *reconfiguration* of the raw narrative. One may question this as to its validity and ask whether this may change the meaning. In addition, it can be asked why is it necessary to change the raw narrative as after all, that is what the participant has said. However, further rationale for using core story creation is summarised thoroughly and applicably by Kim (2015) who states that this method is reconstructing the ‘told from the telling’ or, *reordering* a storyline to be temporally ordered. Participants often do tell their stories in an order that makes sense to the researcher and is not ordered chronologically or conceptually. This can make them inconsistent, they may digress or focus on a topic that is not relevant. Therefore, to reconstruct the order from the ‘telling’ makes the story more coherent. The reconstructed storyline then becomes the ‘narrative for further analysis’ (Mishler, 1995), which is the second stage of the analysis in this present study.

**2b: Verification:** Verification of the stories for credibility and realism with the student nurses themselves was undertaken so that the genuine representations of what they had said could be validated against their own observances of the same episode. They were offered the opportunity to alter, add or remove anything from their stories. All participants verified the both transcripts and created stories and no changes were necessitated. This process was based on principles outlined by Spalding and Phillips (2007) to address the trustworthiness of the data and subsequent interpretation.

**3: Analysis stage 2:** Thematic analysis of narrative was undertaken using Braun and Clarke’s (2006) framework (See Figure 2). Thematic analysis is suited for the current study as this is concerned with the *content* of a story, the ‘what’ rather than ‘how’ it is told. Mishler (1995) and Kim (2015) provided rationale for performing thematic analysis *after* the story creation,
in that the created story becomes the unit of further analysis. Rationale for the use of Braun and Clarke’s model for thematic analysis arose from it’s clarity and staged approach which also enabled main themes and sub-themes to emerge with a view to contributing to learning. While other frameworks do exist, this one served as a workable and feasible approach to identification of a range of common themes.

**FINDINGS**

Narrative analysis of the created stories revealed key, common themes offering rich data that had the potential to be shared with peers as a way to learn about this specialty. A detailed summary of the analysis outcomes with the key and sub-themes can be seen in Figure 3.

**DISCUSSION**

In relation to the findings in Figure 3, the discussion turns to what can be learnt from the stories of student nurses in neonatal care for future practice in teaching and learning. This section will also address what can be learnt about the process of story creation and the application to future practice.

**Learning from student nurses’ experiences:**

Concentrating on the neonatal care experience through the eyes of learners, specifically novice level student nurses, enables others to learn from those who see and witness this specialised area for the first ever time in their training. Seeing and experiencing something new can reveal observances that may not be noticed by those experienced staff who can become over-familiar with the area.  

*Sentence removed from here as highlighted in Response to reviewers document.*
Certainly, studies that have focused on narratives and/or stories from student nurses have found there is much to be learnt from them, which in turn can inform future teaching and learning practice by educating others (Chesser-Smyth, 2005; DiVito-Thomas, 2005; Schwartz and Abbott; 2007; Bradbury-Jones et al, 2011; Melincavage; 2011; Jonsen et al, 2013).

What can be learnt from the student nurses in this study? The reflections of these participant learners in a new field of care showed an unexpected high level of perceptiveness into the experiences of both neonates and parents as well as of themselves in a learning capacity. This should be acknowledged at the outset in relation to the researcher having a presumption that novice nurses, due to their level of training, would not perhaps be able to draw out such insightful observations and emotional awareness and that they clearly displayed. Research has also suggested that novice nurses are not ready for complex critical thinking; for example, OrlandBarak and Wilhelem (2005) analysed twenty-four stories of clinical practice written by student nurses’ about their perspectives towards learning to become a nurse. Findings suggested that student nurses focus on actions rather than on interactions; in other words a focus on skill acquisition rather than a rich content of learning. This finding however was not upheld in this case as the students clearly showed a perceived high level of empathic understanding and an eagerness and commitment to support parents consistently throughout their stay, a theme that strongly came through on analysis.

The themes that emerged from the analysis of the stories really captured key elements of the neonatal speciality as a learning environment for students. What the students saw and how they verbalised parents’ and neonates’ experiences may serve to inform others who are learning about this field or those who may wish to prepare for a placement on the neonatal unit. The themes for learning that were consistently present in the narratives are indeed
relevant and specific to this field bringing out the unique elements of what neonatal care involves. This would not be however about skills learning but more about the differences to expect between this field and other areas, the nature of the actual neonate, the experiences of parents and transitions through the levels of care including both the physical and emotional journey of parents and learners and importantly, the humanistic side of neonatal care.

This indeed is one of the aims for subsequent work, that is, to use stories to inform others about the experience of neonatal care. Literature cited previously has shown the value of using personal narratives to teach health professionals about the more humanistic side of care environments. In addition, stories illustrate the need to be critical in practice and it has been shown that students favour teaching using a more personal case study approach (DiVito-Thomas, 2005) as this encourages critical thinking and reflective practice. While the stories created in this study are not patient case studies, they are however personal learning encounters of individual students who have faced neonatal care which illustrates the neonatal experience by a storied approach rather than in traditional fragmented way of teaching this speciality using, for example, according to conditions, physiological systems or equipment used in this area. Certainly, in some education institutions, storytelling using patients has been integrated into the training for student nurses (Schwartz and Abbott (2007) but this is not widely reported, certainly not involving student nurse stories nor how stories are used in conjunction with a tailored resource in field of children’s or neonatal nursing.

Learning from the process of core story creation.

The findings also give rationale to the value of creating stories. In order to develop a resource to use by others and one that makes coherent sense, it is necessary to reconstruct the raw spoken narrative into a manageable form, as has been illustrating in this study. Riessman
(2008) in her book on narrative analysis supports the need to ‘clean up spoken language to construct an unambiguous plot line’ (p61), to make the textual stories shorter with clear beginnings, middle and ends. This would also be necessary when transferring stories to a digital platform as long, unwieldy lengths of text do not suit such methods of teaching. Instead, key points through the experience of neonatal care would need to be extracted and presented, hence the importance of thematic analysis which has identified key concepts for learning. The challenge was to achieve this without losing the significant notion of ‘journey’; the parallel between telling a story and the student’s, neonate’s and / or family’s journey through the neonatal care experience is an element to capture and needs to be preserved in any future resource development to avoid losing this unique concept.

**Strengths and limitations of the study.**

It is necessary to discuss the methods used here in view of the feasibility for future and continuing work. Overall, what certainly worked well was the willingness of the student nurses to talk about their placement experiences and how they were able to capture not only the neonatal specific aspects of care but those relating to parents. In addition, the process of emplotment and story creation described, enabled the raw narratives collected from interviews to be managed effectively in that the finished product was clearer, shorter and more logical in how it read and flowed. Transcription, although time consuming having done this manually, was a way to really become familiar with the narrative and themes right at the outset which helped prepare for the thematic analysis that followed.

Some challenges were also identified which can be considered in line with limitations of this study. Firstly, starting with the interview process, the SQUIN did not appear to elicit sufficient information in the first instance in order to achieve a full ‘whole’ account story.
According to Wengraf (2009), a SQUIN used in the first part of an interview should be able to elicit a full ‘history’ and the interviewer should just support the informant as they attempt to answer it without any further questions, at least initially. However, more questioning was required in order to really elicit desired information around appreciation of the neonatal experience and the information obtained from the SQUIN would not have sufficed. Wengraf then recommends following up after an initial stage with questions about some of the topics raised. This was done; however, other questions were also asked that had been prepared prior to interview. It may therefore have been preferable to be more fluid in questioning and, rather than prepare the subsequent questions, to ask them according to what the interviewees say initially to really allow the narrative to be guided by them rather than predetermined themes.

**Application to future practice**

This study has produced a collection of stories from student nurses which convey key learning messages about the experience of neonatal care. In order for them to be of future value to other learners, they have now been developed into a digital storytelling resource using the six stories, each one highlighting a key learning theme revealed from the analysis, tailored to neonatal care. The stories developed in this study are therefore now being used to teach others about the neonatal care experience from the perspectives of those who have been within it. The resource is illustrated in Figure 4 which the reader can access via the following weblink: [http://www.health.herts.ac.uk/elearning/petty/neonate/nav/](http://www.health.herts.ac.uk/elearning/petty/neonate/nav/)

It is beyond the scope of this paper to describe in detail the process of resource development and this will be the subject of a future paper. However, the six stories in a digital storytelling format have been presented to a group of current children’s nursing students to undertake a preliminary evaluation of their value as a learning strategy. Overall, emerging feedback is promising with students expressing benefits in relation to storytelling as an interesting and
novel approach to learning, the benefits of learning from their peers and the value of stories to prepare for practice and gain insight into a new specialist area. Example extracts of student feedback that has emerged from this preliminary evaluation are as follows:

- ‘It is helpful to listen to the views of other student nurse peers as we can relate to their experiences and listen to their reflections on practice’.
- ‘It is very useful especially for those students who have not worked with neonates before and it is valuable to learn from other’s experience’.
- ‘It gives you an insight into what to expect from practice and the different experiences you may encounter’.

Ongoing, future dissemination and evaluation of the abovementioned digital resource will now take place to other student cohorts in relation to the contribution of storytelling to enhancing teaching and learning in the challenging and specialist area of neonatal care. In addition, methodological principles of core story creation and emplotment as a means of narrative analysis can be now taken forward to future work on the creation of stories informed by other significant participants such as parents who also have the lived experience of being in a neonatal unit for a significant time period with their often sick and vulnerable baby at the start of life.

**CONCLUSION**

Finally, much has been revealed about the insight and observances of student nurses by listening to stories created from their narratives. These students have entered a new field that offers different and specialised opportunities for learning. Others can learn from the journey that they have taken through this new learning experience.
The anticipated contribution of this study to learning and teaching practice relates to how storytelling could be an alternative and innovative approach for understanding the neonatal care experience through the eyes of learners. Storytelling has not been used as a teaching strategy with the current nursing students in this area of children’s nursing. In addition, stories written from student nurses narratives which are then offered to other student nurse groups is congruent with the concept of peer learning.

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REFERENCES


