

24 Defining Moments in Medical History – Nurses’ Narratives of their Everyday Experiences of a Key 20th Century Historical Event – the First Use of Antibiotics

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Abstract

This article provides illustrations of how West Yorkshire nurses described their experiences of new technologies during their working lives in the 1940s. This paper focuses on nurses’ experiences of using the first antibiotics. The narratives are from life story oral history interviews which provided a rich collection of nurses’ memories. Ten extracts from four of the transcripts are used to provide an insight into how these drugs were used and how the nurses viewed their impact. Methodological and theoretical issues of using oral history and life story approaches in nursing are explored. Concluding issues relate to how nurses as health care professionals perceived their ‘everyday life’ experiences in ‘ordinary’ settings and how they interpreted their past experiences of major historical health care moments.

Introduction

This article provides illustrations of how West Yorkshire nurses described their experiences of new technologies during their working lives in the 1940s. The narratives are from a PhD study entitled the History of Nursing in Halifax and Huddersfield 1870-1960. Twenty-one life story oral history interviews of retired nurses aged 65-97 years (mean = 76.5) provided a rich collection of memories. Ten short transcript extracts from four of the interviews are presented to illustrate how the nurses told their ‘antibiotic stories’.

During initial data analysis six medical advances and technological changes emerged. These included care for patients in iron lung machines and pioneering surgical techniques such as abdominal-rectal, prostate, gastric and

plastic surgery. However, this article focuses on the nurses' experiences of the first antibiotics. In particular there is discussion of why antibiotic stories were not prominent in the oral histories.

Setting the Scene

The early 1940s were characterised by great confidence in medical science and its ability to challenge disease. The advent of sulphonamides, penicillin and the wide-spectrum antibiotics between 1930 and 1950 gave Western medicine what were described as magic bullets, ie. synthetic and naturally occurring drugs which could destroy infectious organisms without harming the living host. (Webster, 2001)

This description is supported by Hare (1970). Several other authors discuss the role of Fleming in the discovery of Penicillin and Florey and Chain in its use (Bankoff, 1961; Singer and Underwood, 1962; Wells, 1980; Swann, 1985; Buxton, 2001).

Life Story Interviews

Fielding (1995) identifies the use of semi-structured interviews to help interviewees tell their own stories. Atkinson (1998, p.41) states 'the less structure a life story interview has, the more effective it will be in achieving the goal of getting the person's own story in the way, form, and style that the individual wants to tell it in'. It was important to allow the nurses freedom to talk about the things they remembered best or that they believed important, thereby emphasizing the individuality of the stories told. This unstructured approach helps to explain why some nurses did not mention antibiotics.

Memory

Memory was an important concept due to the age of the respondents. The works of Cornwall and Gearing (1989), Bytheway (1993) and Ritchie (1995) were useful in planning and conducting the interviews. Field (1989, p.44) identifies 'Nothing is more fully agreed than the certainty that memory fails. Memory fails, leaving blanks, and memory fails by filling blanks mistakenly'. This emphasises the complexity of memory and its potential impact on the stories told. The analysis and interpretation considered not just what was said but also what was not said. The majority of nurses did not tell 'antibiotic stories' which may have been due to memory loss or their perception that this aspect of their experience was not significant enough to mention. Green (2004,

p.35) provides interesting discussion of the importance of considering 'collective and individual memory and how individual recollections fit (often unconscious) cultural scripts or mental templates'.

History from Below: The 'Ordinary' Nurse's View

Samuel and Thompson (1990) indicate the importance of non-elitist research, 'giving voice to underprivileged minorities'. None of the nurses in this study were recognized nationally. However, this does not diminish their individual career achievements or their impact on nursing locally. Collecting the occupational career stories of 'ordinary' nurses in provincial local hospitals within a 'life story' approach was an important, appropriate and valid use of oral history (Roberts, 2002).

The use of narrative confirms Roberts (2004a) and Roberts (2004b) suggestion that narrative analysis is increasing in areas of human and health sciences. Frid et al. (2000) suggest that using narrative in nursing research is new. However, examples are increasing such as Dyson (2003) and Frost and Cliff (2004). Previous use of oral history studies in nursing and health are evidenced by Maggs, 1983; Durdin, 1984; Leap and Hunter, 1993; Gates, 1993; Starkey, 1994; Church and Johnson, 1995; Maggs, 1996; Stahl and King, 1996; Russell, 1997; Starkey et al., 1997; Biedermann, 2001 and RCN, 2004. Roberts (2004c) explores the links between narrative and historical studies like this one, and discusses how the use of these individual nurses' stories can help in local history-making. So these provincial 'stories from below' can complement national elite medical and nursing stories documented elsewhere (Blythe, 2004; Christie et al., 2004).

Antibiotic Stories

The following extracts were specially selected for the purposes of this article and are taken from a much larger data set which was not specifically exploring experiences of antibiotics. They represent findings from initial analysis and for all these reasons they are therefore incomplete. Denzin (1989, pp.27-49) defines stories as 'fictional, narrative accounts of how something happened'. He continues that a story has a beginning, middle and an end, therefore, life stories examine a life, or a segment of a life. These extracts provide a glimpse of the latter.

The first three extracts are from Edna, a 78 year old who started nurse training at Halifax General Hospital in 1943. Her first two extracts relate to experiences during World War Two when she was seconded to Pinderfields

War Hospital, Wakefield as a junior student nurse to care for German military prisoners of war.

I: Where, where they given antibiotics?

R: No.

I: No?

R: They were not allowed.

I: Umm.

R: Because there was one poor fellow and he had a head wound and a bit of his brain was sticking out and he could have done with some antibiotics and they wouldn't give him any.

I: Umm.

R: I think he eventually died, him. But he would have died anyway wouldn't he?

Edna appears to give a relatively cold matter of fact description which may demonstrate a professional detachment. This lack of emotion may be a way of reducing the effects of this presumably traumatic experience (Riessman, 1993). Also, the use of 'they' may indicate the restrictive authority, discipline and military hierarchy she found herself under. The way she says, 'they wouldn't give him any', may represent a clash between this authority and her caring role as a nurse. Her final question seems to be an attempt to perhaps justify the story or seek approval. It must be remembered that here is a young woman working as an inexperienced unqualified student nurse in an unexpected and unfamiliar environment. Edna describes the experimental use of antibiotics in the war which is supported by Anon (1943). She continues:

R: You did the dressings, if they had any dressings to do, or they got medicine, but they wouldn't let them have the penicillin cause you were only allowed so much for each ... ward ...

I: Umm.

R: ... and it was only for the British soldiers ...

Here Edna provides an example of routine ordinary everyday nursing care – wound dressings, but highlights the underlying rationing of antibiotics before mass production occurred. 'They wouldn't let them have the penicillin' provides another example of the 'them and us' aspect of authority. The use of penicillin only for British soldiers is stated in a matter of fact manner with no hint of controversy. This practice is confirmed by Anon (1944). Fry (1998, p.48) identifies evidence of rationing and shortages of supplies due to the war well, confirming that antibiotics were 'scarce, crude and expensive'. This is an area which the author on reflection realised could have been explored more at interview.

In Edna's next extract she describes the practical day-to-day use of penicillin when working as a student in Halifax in the early 1940s.

R: And there was no fridges ... so everything you kept in a, they had a pantry on each ward, ... err, at the top of the stairs by the lift, there was what they called a sluice room, and ... there was a pantry on there, and it was very cold in there, and err, you kept everything like that in the pantry. Even when they brought penicillin out at first, it was in powder form in a little ... err, bottle, and you had to mix it with sterile water, just so much, and then pull it up into a syringe, ... it was yellow powder, and you'd even to keep that in there cause it had to be kept cold, ... and ... umm ...

Edna's detailed description of the ordinary practical use of penicillin provides an interesting point as she continues to use the word 'they' three times. She provides a unique insight into an otherwise unheard ordinary everyday story of the nurses role in the routine storage and administration of penicillin.

The next extract is from Betty, a 97 year old who started nurse training at the Royal Halifax Infirmary in 1924. She describes her first experiences of antibiotics while working as a Matron in a plastic surgery unit in England during World War Two.

I: And do you remember antibiotics been brought in at the time, ...
R: Oh yes, I do remember ...
I: ... just before you retired, you remember that do you?
R: ... because, well plastic surgery was one of the things, ... the, the spec, special kinds, ... they were so, err, damaging to, to the result, if they got infected.

Here Betty confirms the impact and importance of antibiotics in helping control and treat infections in plastic surgery. She continues by giving a description of an antibiotic injection.

R: They were very painful when you injected, ...
I: Umm, umm.
R: ... the stuff, I'm trying to think what the, what the thing was that was so painful, ... it was acid wasn't it, a sort of acid ...
I: Right.
R: ... drug I think ...
I: Ah, ha.
R: ... but it was very successful ...

Betty provides evidence of the effect of the injection on patients and indicates how useful it was as a treatment.

The next four extracts are from Rosemary, an 80 year old who worked in Halifax and Huddersfield hospitals. Here she describes her first experiences of antibiotics.

R: Oh yes, well I mean to begin with the first thing I ever saw in fever training way back in 1940 I suppose was M & B 693 and somebody had two tablets in a glass which she was carrying so carefully along the corridor, and everybody was ... what's going to happen? Because we had a lot of young men with cerebro-spinal meningitis because they had been in barracks there and it spread, and these young men all we'd been able to do was hold them, very carefully, with three or four nurses on top of them to bend their backs in order to get a lumbar puncture needle in, so as to let some of the fluid out which was causing their obstreperous behaviour – and that had to be done every so often in order to keep them in bed or so on ...

She portrays a fairly dramatic scene of a person holding the M & B 693 tablets and the suspense of the effect of them. Also, the old practice of caring for the patients is introduced to the story. Rosemary continues by explaining how this practice changed following the use of M & B 693.

R: ... and when we saw these M & B 693 going down and then we discovered that in less than a day the patients were quiet, their cerebral state was alright because it, you know ... we did a lumbar puncture to start with of course, but it wasn't necessary to go on doing it. We thought M & B 693 was the 'Bees Knees' as it were in those days.

I: What was it? Was there another name for it?

R: Well, it was the first sulphonamide that came out, and then Sulphathiozole and others came out but ... and then Sulphadiazine and a lot of others but it was the first sulphonamide and it was just called M & B 693 – it was their sixth hundredth and thirty-ninth try of course, this is what happened did I say 760 was Sulphathiozole? I can't remember all the numbers ...

Here Rosemary describes the dramatic effect of antibiotics and the subsequent change of nursing practice. She calls it the 'Bees Knees' as a way of emphasising its impact which was seen in December 1943 when Winston Churchill was treated with it for pneumonia (Wells, 1980, p.9). Rosemary confidently provides some factual information, but also recognises her difficulty remembering the different numbers. Rosemary continues:

R: Oh yes. We couldn't believe that we were no longer having to sit on these chaps to have anything done with them. Every day you were sitting on somebody, you know, some of them twice a day in order to keep them, to get right, but now ... it was just marvellous.

Rosemary confirms that the old practice had gone with dramatic effect. Her opening words 'couldn't believe' and her concluding comment 'it was just marvellous', are good indicators of the influence she felt antibiotics had. Her final account explains how the use of antibiotics gradually increased.

R: ... we found then that M & B dealt with a lot of these things so much easier, and of course Penicillin wasn't really out ... err, well it was available, but it wasn't available in every hospital by any means, err, ... and it ... as far as I remember it was used for small children with meningitis and that kind of thing, err, in the ... let me think, in, towards the end of the ... end of the 40s I should think, beginning of ... 1950s, that sort of time, before it really became ... widely ... available, err, it had been something for special, ... err, you know, special cases to be given, to begin with, umm, and then of course, well ...

Rosemary illustrates how antibiotics were used only for special cases like children and infectious diseases and confirms its continued limited availability. Wells (1980, p.10) states that Sulphonamides were the first effective treatment for Cerebro-spinal meningitis. Ministry of Health (1945) and Anon (1945a) supported the use of penicillin but three years later sulphonamides were suggested to be more effective than penicillin for this disease (Anon, 1948).

The final extract is from Molly, a 72 year old who started nurse training in 1947 at Halifax General Hospital. She tells a story about an incident with a Matron relating to penicillin in 1948.

R: ... I don't think she ever slept she used to be middle of the night three o'clock in the morning she'd wander on the ward sort of thing, ... and I remember I was in my second year on a male GU ward and she came and, ... said we'll get me, no, no she said, you can do the round with me nurse, and we went round and we got to this man and I'd done injections the day before and we gave penicillin three hourly in those days, ... and I said, Mr So and So's on penicillin, and she said, no nurse it was discontinued at six o'clock this morning. Wasn't a thing that she didn't know, ... and didn't remember, you know, err, she really was fantastic, she ...

A key theme in Molly's extract is the suggestion that the availability of antibiotics was increasing in the late 1940s. Evidence suggests the Ministry of Health increased supplies of penicillin to civilian hospitals, both voluntary and municipal, free of charge in 1945 (Anon, 1945b). However, by June 1946 this free supply ceased (Anon, 1946).

Molly's admiration for the Matron highlights an important issue that in the 1940s all of the nurses, except Betty, were either student nurses training or junior qualified staff. Therefore, their limited involvement, awareness and knowledge of the medical advances had to be considered. Further analysis needs to be done and Wiklund et al. (2002) provide useful discussions of how narratives can be interpreted in nursing.

Discussion

On reflection the author recognised two important issues. Firstly, the use of antibiotics was not routinely talked about indicating it was either not relevant or something they had forgotten. Secondly, despite conducting pre-interview meetings with some of the sample, when each interview commenced the content and direction of the interviewees 'stories' was mainly unknown. Atkinson (1998) identifies that researchers are 'never really in control of the story actually told'. The author recognised that this created some limitations during the interviews related to inadequate preparation and lack of knowledge. This was easily rectified post-interview but was problematic during the interview process for two reasons – firstly the author was limited in relation to the sort of questions to ask to get interviewees to expand their stories; secondly, this restricted the help and support for interviewees. It was frustrating to listen to the recordings post interview with the relevant knowledge and recognising the interviewer's inability to prompt the interviewees appropriately when they were struggling to recollect factual information. However, it is recognised that interviewers cannot be knowledgeable about all potential issues that may be discussed in semi-structured interviews. This area needs to be considered in planning and when contemplating whether to conduct pre-interview meetings.

To consider the historical validity and reliability of these 'antibiotic stories' triangulation was performed, which involved reviewing the respondent's stories, identifying similarities and differences, and comparing these with 'real' factual information. It is recognised that validity and reliability are contentious issues but here they are used to provide some credibility to the nurse's stories. The nurses provided relatively accurate details about the introduction of antibiotics. The use of M & B tablets is confirmed as M & B stood for May and Baker the production firm (Bankoff, 1961). Singer and Underwood (1962) confirm that sulphonamides were not used for humans until the 1940s. Wells (1980) suggests antibiotics were not used on patients until 1941. Further work on this triangulation is needed but the nurse's stories seem to be reliable and valid. This contrasts with other studies that found nurse's recollections often contradicted historical facts (Gates, 1993).

Other aspects of these stories include the nurse's role developing from a passive caring role into a technological active approach.

Everyday life for young probationer nurses in the middle of the 20th century was very much based upon a regimented routine and a strict hierarchy of roles and responsibilities. Berger (1997, p.161-163) defines everyday life as the 'here and now, the real world'. In the context of the life story beginning, middle and end, he suggests everyday life is the middle. This everyday life is made up of the routine tasks and behaviours we repeatedly perform during our daily activities of living, and the more exciting or upsetting occurrences we experience. Berger (1997) argues that narrative is the fictional representation of everyday life with the routine repetitive habits and behaviours removed and a

more focused account of the more interesting or important elements of everyday life. The nurses were allowed to select which stories they wished to tell and which they did not wish to tell. All of them have selected out of their everyday life experiences the parts they felt were important to them or that answered the researcher's questions. Interestingly, only ten out of 21 retired nurses mentioned using antibiotics, in which they described various issues related to their use. It is interesting that most of the 'antibiotic stories' are not narrated as significant life story events and as Roberts (2004c, p.90) suggests 'stories of the self must be seen as being produced in relation to different and changing social audiences'. In this case the narrators did not emphasise the importance of antibiotics presumably seeing it as an 'every day' occurrence at the time and narrating it as that even though they may now appreciate its historical significance. This is an example of what Roberts (2004b, p.178); Roberts (2004c, p.96) describes as a 'past-present' classification in his 'Biographical, Time Perspectives and History-Making model'.

Conclusion

This paper has provided selective examples of narratives of retired nurse's recollections of their first experiences with antibiotics some 60 years ago. These can be seen as unique individual memories of how nurses as health care professionals perceived their 'everyday working life' experiences as a nurse in 'ordinary', or as in war time, not so ordinary, settings. The use of a life story oral history approach and memory has been discussed. The prominence or lack of it, nurses placed upon their involvement with antibiotics has been explored. The importance of exploring local occupational oral histories within a life story approach and narratives has been discussed in relation to both professional nursing and local history contexts. These 'stories within life stories' provide evidence of the richness of data that can be obtained via the life story approach.

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References

- Anon (1943) Penicillin Saves Wounded Soldiers, *The British Journal of Nursing*, September, 104.
- Anon (1944) Penicillin, *The British Journal of Nursing*, July, 74.
- Anon (1945a) Penicillin. Systemic Administration, *The British Journal of Nursing*, May, 55.
- Anon (1945b) Increasing Supplies of Penicillin for Civilian Patients, *The British Journal of Nursing*, May, 56.
- Anon (1946) Distribution of Penicillin, *The British Journal of Nursing*, July, 81.
- Anon (1948) Infectious Diseases, *The British Journal of Nursing*, August, 95.
- Atkinson, R. (1998) *The Life Story Interview*, Qualitative Research Methods series 44, London, Sage.
- Bankoff, G. (1961) *Milestones in Medicine*, London, Museum Press Ltd.
- Berger, A.A. (ed) (1997) *Narratives in Popular Culture, Media and Everyday Life*, Sage Publications, Thousand Oaks, London.
- Biedermann, N. (2001) The voices of days gone by: advocating the use of oral history in nursing, *Nursing Inquiry*, 8, 1, 61-2.
- Blythe, M. (2004) The Medical Sciences Video Archive of the Royal College of Physicians and Oxford Brookes University, [Online] Available at: <http://www.brookes.ac.uk/schools/bms/medical/index.html> (Accessed 24th June 2004).
- Buxton, R. (2001) Superbugs – the problem of antimicrobial resistance, Mill Hill essays, The National Institute for Medical Research, [Online] Available at: <http://www.nimr.mrc.ac.uk/MillHillEssays/2001/superbugs.htm> (Accessed 29th June 2004).
- Bytheway, B. (1993) Ageing and Biography: The Letters of Bernard and Mary Berenson, *Sociology*, 27, 1, Feb, 154-165.
- Christie, D., Reynolds, L. and Tansey, E.M. (2004) Wellcome Witnesses to Twentieth Century Medicine, [Online] Available at: <http://www.ucl.ac.uk/histmed/witnesses.html> (Accessed 24th June 2004).
- Church, O.M. and Johnson, M.L. (1995) Worth remembering: the process and products of oral history, *History of Nursing Journal*, 1, 1, 19-31.
- Cornwall, J. and Gearing, B. (1989) Biographical interviews with older people, *Oral History*, 17, 1, Spring, 36-43.
- Denzin, N.K. (1989) *Interpretive Biography*, London, Sage.

- Durbin, D.K. (1984) The place of oral history in nursing history, *Australian Journal of Advanced Nursing*, 2, 1, 4-8.
- Dyson, S. (2003) Life histories: Interpreting the Subjective Reality of African Students Studying Nursing in the UK, in C. Horrocks, N. Kelly, B. Roberts and D. Robinson (eds) *Narrative, Memory and Health*, Huddersfield, University of Huddersfield Press, pp.97-104.
- Field, K. (1989) What one cannot remember mistakenly, *Oral History*, Spring, 17, 1, 44-53.
- Fielding, N. (1995) Varieties of research interviews, *Nurse Researcher*, 1, 3, March, 4-13.
- Frid, I., Ohlen, J. and Bergbom, I. (2000) On the use of narratives in nursing research, *Journal of Advanced Nursing*, 32, 3, 695-703.
- Frost, S. and Cliff, D. (2004) Achievement and Identity: Exploring the Career Narratives of Academic Nurses, in D. Robinson, C. Horrocks, N. Kelly and B. Roberts (eds) *Narrative, Memory and Identity: Theoretical and Methodological Issues*, Huddersfield, University of Huddersfield Press, pp.201-210.
- Fry, D. (1998) Early Antibiotic Therapy. Penicillin and Pedantic patients 1950, *International History of Nursing Journal*, Summer, 3, 4, 47-48.
- Gates, E. (1993) Yesterday once more, *Nursing Times*, 89, 44-45, 47.
- Green, A. (2004) Individual Remembering and Collective Memory. Theoretical perspectives and contemporary debates, *Oral History*, Autumn, 32, 2, 35-44.
- Hare, R. (1970) *The birth of penicillin, and the disarming of microbes*, London, Allen & Unwin, The Wellcome Library for the History and Understanding of Medicine.
- Leap, N. and Hunter B. (1993) *The Midwife's Tale. An oral history from handywoman to professional midwife*, London, Scarlet Press.
- Maggs, C. (1983) Oral history and nursing history, *Nursing Times*, 79, 55-57.
- Maggs, C. (1996) A history of nursing: a history of caring, *Journal of Advanced Nursing*, 23, 630-35.
- Ministry of Health (1945) Penicillin. Indication for its use and methods of administration, *The British Journal of Nursing*, April, 39.
- RCN (2004) Royal College of Nursing Archives. Oral History Collection, Edinburgh, [Online] Available at: <http://www.qmuc.ac.uk/hn/history/> (Accessed 6th September 2004)
- Riessman, C.K. (1993) *Narrative Analysis*, Qualitative Research Methods, Vol.30, London, Sage Publications.
- Ritchie, D.A. (1995) *Doing Oral History*, Oxford, Twayne Publishers.
- Roberts, B. (2002) *Biographical Research*, Buckingham, Open University Press.

- Roberts, B. (2004a) Narrative Analysis, in S. Becker and A. Bryman (eds) *Understanding Research for Social Policy and Practice*, Bristol, Policy Press.
- Roberts, B. (2004b) Health Narrative, Time Perspectives and Self Image, *Social Theory and Health*, 2, 170-183.
- Roberts, B. (2004c) Biography, Time and Local History-Making, *Rethinking History*, 8, 1, March, 89-102.
- Russell, D. (1997) An oral history project in mental health nursing, *Journal of Advanced Nursing*, 26, 489-495.
- Samuel, R. and Thompson, P. (1990) 'Introduction', in R. Samuel and P. Thompson (eds) *The Myths We Live By*, London, Routledge.
- Singer, C. and Underwood, E.A. (1962) *A Short History of Medicine*, 2nd ed, London, Oxford University Press.
- Stahl, N.A. and King, J.R. (1996) *Preserving the Heritage of a Profession through Oral History Projects*, Annual Conference of the United Kingdom Reading Association, July 4-5, 1996, Newcastle, England, United Kingdom.
- Starkey, P. (ed) (1994) *Nursing memories. From probationers to professionals*, Birkenhead, National Museums and Galleries on Merseyside.
- Starkey, P., Colman, A. and Morle, K. (1997) Uncommon entrance? The recruitment of probationers to Merseyside hospitals 1919-1938, *International History of Nursing Journal*, 2, 3, Spring, 5-16.
- Swann, J.P. (1985) The discovery and early development of penicillin, *Medical Heritage*, 1, 5, Sept-Oct, 375-386.
- Webster, C. (2001) *Caring for Health: History and Diversity*, pg.192, Buckingham, Open University Press.
- Wells, N. (1980) *Medicines: 50 Years of Progress 1930-1980*, London, Office of Health Economics.
- Wiklund, L. Lindholm, L. and Lindstrom, U.A. (2002) Hermeneutics and narrative: a way to deal with data, *Nursing Inquiry*, 9, 2, 114-125.

