



Research article

Healers and midwives accused of witchcraft (1563–1736) - What secondary analysis of the Scottish survey of witchcraft can contribute to the teaching of nursing and midwifery history

Nicola A. Ring^{a,*}, Nessa M. McHugh^a, Bethany B. Reed^b, Rachel Davidson-Welch^a,
Leslie S. Dodd^c

^a Edinburgh Napier University, School of Health and Social Care, Sighthill Campus, Edinburgh EH11 4BN, Scotland, UK

^b Morton Fraser Lawyers, Quatermile Two, 2 Lister Square, Edinburgh EH3 9GL, Scotland, UK

^c University of Stirling, School of Arts and Humanities, Stirling FK9 4LA, Scotland, UK

ARTICLE INFO

Keywords:

Nursing
Midwifery
History
Folk-healers
Witches
Rituals
Holistic care
Religious nurses

ABSTRACT

Background: Nearly 4000 people were accused of witchcraft in Scotland between 1563 and 1736. Some of these were healers, midwives, and nurses.

Objective: To investigate Scotland's folk-healers and midwives accused of witchcraft and review their work from a nursing and midwifery perspective.

Design: Secondary analysis of the Survey of Scottish Witchcraft.

Methods: Those on the Survey with witchcraft accusations relating to folk-healing or midwifery were identified and their biographies were created from Survey data (2021). Individual biographical data were descriptively analysed. Healing/midwifery practice information was tabulated and thematically analysed.

Results: 142 individuals were identified (85 % women), 51 % were found guilty, 90 % were executed. Most (98 %) were folk-healers with 10 accused for midwifery reasons. Mainly their work was accused of causing harm. Three themes emerged: their use of rituals; unorthodox religious practices and treatments. Rituals included actions carried out a certain number of times. Religious practices frequently referenced Catholicism. Many of their treatments for ingestion, application or bathing used items still recognised for their health properties. Approximately, 10 % of the 142, mainly in the 1500s/early 1600s, utilised expensive items and complex treatments which had more in common with 'elite' knowledge rather than simple folklore.

Conclusions: Across all 142 people, many aspects of their work are identifiable within more contemporary nursing and midwifery practice including their use of rituals, treatments, and holism. Mostly the accused were folk-practitioners, but a few (1500s/early 1600s) appear to have been healers working akin to physicians. Following the Protestant reformation (1560) their work, unlike that of physicians, was marginalised, considered unorthodox and harmful because they were women and/or their work reflected Catholicism. European hospital nursing originates in the monastic houses, but little is known about these early religious nurses. This study is novel in suggesting that whoever taught these accused witch/healers may have been connected to the monastic hospitals pre-Reformation.

1. Introduction

Internationally, nursing and midwifery history teaching within the undergraduate curriculum has been described as lost, largely disappeared, receded into obscurity, and eliminated (Davis, 1995; Kelly and Watson, 2015; Grympa, 2017; Matthias, 2023). Nursing history is

often not valued (Donohue, 1991), perceived as boring, and of minimal relevance (Lait, 2000; Lewenson, 2004; Holme, 2015; Grympa, 2017) especially as newly qualified nurses and midwives are not required to know about their professional history (NMC, 2018). Yet, the benefits of nurses and midwives learning from history are recognised in, for example, helping them to understand the development of their

* Corresponding author at: Edinburgh Napier University, School of Health and Social Care, Sighthill Campus, Edinburgh EH11 4BN, Scotland, UK.

E-mail addresses: n.ring@napier.ac.uk (N.A. Ring), N.McHugh@napier.ac.uk (N.M. McHugh), Bethany.Reed@morton-fraser.com (B.B. Reed), R.Davidson-Welch@napier.ac.uk (R. Davidson-Welch), leslie.dodd@stir.ac.uk (L.S. Dodd).

<https://doi.org/10.1016/j.nedt.2023.106026>

Received 14 August 2023; Received in revised form 23 October 2023; Accepted 2 November 2023

Available online 7 November 2023

0260-6917/© 2023 Edinburgh Napier University. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

professional identity, culture, image, and work (Davis, 1995; Lewenson, 2004; Smith et al., 2015; Kelly and Watson, 2015; Yilmaz and Özbek Güven, 2021) as well as promoting critical thinking (McAllister et al., 2010; McAllister, 2013), creating opportunities to learn about sensitive topics (Matthias, 2023), and wider social issues including women's history (Lait, 2000). This novel paper helps today's nursing and midwifery students see beyond 19th century historical icons to understand how healthcare in earlier centuries connects to more contemporary practice. This study also highlights how early modern societal change, including religious Reformation, contributed to the marginalisation of women's healthcare knowledge.

1.1. Background

The Scottish Witchcraft Act was in place from 1563 until 1736 (Records of the Parliament of Scotland, 1563). During that time witchcraft was a criminal offence and nearly 4000 people were accused of witchcraft (Goodare et al., 2003). Scotland's accused witches are internationally important, and numbers far exceed those in the higher profile American Salem witch trials (Latner, 2008). Circumstances that led to individuals being accused of witchcraft were complex. For some their witchcraft accusations related to their folk-healing and/or midwifery practices. Accused witches in early modern Scotland were tried in both ecclesiastical and secular courts. Many accused witches confessed their guilt often implicating others in their confessions. This was understandable as witchcraft investigations often involved physical torture, sleep deprivation and intrusive searching of the accused's body to locate a Devil's mark (often by people paid to find witches). For the many found guilty, thought to be about two-thirds, the penalty was being strangled and burnt at a stake (Goodare et al., 2003).

Within the midwifery profession, the 'witches' work of long-gone practitioners is recognised (Reed, 2021) but this is not the case in nursing. Too often nursing history over-emphasises 19th century reforms by elite white people, like Florence Nightingale, giving little attention to other individuals, including those from minority groups, and earlier eras. That so many were accused of witchcraft for their work caring for the sick is an under-acknowledged aspect of nursing's early past. Over time, the work of folk-healers and midwives accused of witchcraft has been denigrated with disparaging reference to their 'old wives' tales' and the real-life stories of these individuals lost. Scotland's accused witches have been extensively researched by international researchers in disciplines including history, religion, tourism, and women's studies (e.g., MacDonald, 2014; Franks, 2017; Lorne, 2019). Where healers and midwives accused of witchcraft have been researched, findings have been interpreted in the context of the history of medicine or public health (e.g., Miller, 1999) and not within the history of nursing and midwifery. One reason for the lack of nursing and midwifery research in this area was a belief that there were no records which could be used to investigate these individuals. However, the *Witches of Scotland* Legal Campaign (2020) to obtain posthumous justice for those unfairly convicted under the Witchcraft Act highlighted the existence of witchcraft trial sources which could be used. This paper reports the first nursing and midwifery study of Scotland's folk-healers and midwives accused of witchcraft across the duration of the Witchcraft Act (1563–1736).

2. Methods

2.1. Study aim

To provide insight into early British nursing and midwifery history by investigating folk-healers and midwives accused under the Witchcraft Act in Scotland between 1563 and 1736, telling their stories and reviewing their healing and midwifery from a nursing and midwifery perspective.

2.2. Design

This study involved secondary analysis of the online Survey of Scottish Witchcraft (Goodare et al., 2003). The Survey of Scottish Witchcraft contains information on 3212 named people accused of witchcraft in Scotland between 1563 and 1736 and gives details of their accusations and trials. It was created from archival sources including contemporaneous trial records and ascribes witchcraft accusations to 16 characterisations. The Survey of Scottish Witchcraft was searched to identify those with witchcraft characterisations of folk-healing or midwifery (nursing was not a characterisation). Information about each identified person was systematically extracted from the Survey of Scottish Witchcraft into a biography template – one for each accused person. Individual biographies contained personal details including witchcraft accusation(s), trial start/end dates, trial outcome and reported human folk-healing and midwifery practices. Creating these biographies helped 'bring stories to life' (Bourbonnais and Michaud, 2018, p4), for example, by indicating who had more than one witchcraft accusation/Survey of Scottish Witchcraft listing. As name spellings often changed and many women had the same/similar names, biographical data extracted from the Survey of Scottish Witchcraft were cross-referenced to the *Source-book of Scottish Witchcraft* (Larner et al., 1977). The first author led on data extraction but all extracted data and completed biographies were second checked for accuracy. Biographies were held on a password protected shared university server. All data are in the public domain, but University ethical approval was obtained.

2.3. Analysis

The team read and re-read the biographies to familiarise themselves with the identified individuals. Demographic details were entered into a project database (Microsoft Excel), alphabetically and by trial end date, and descriptively analysed. These findings were then compared to overall Survey of Scottish Witchcraft data. Qualitative data reporting folk-healing and midwifery practices were thematically analysed and details such as items/products used in treatments were analysed in tables. Analysis was an iterative process involving constant data checking and, where necessary, translation of Old Scots language. To minimise interpretive bias, preliminary findings were shared in team meetings (nursing, midwifery, law) and discussed with a Project Steering Group (nursing, social science, and law).

3. Findings

We identified 142 individuals with folk-healing and/or midwifery characterisations, approximately 4.5 % of all those named on the Survey of Scottish Witchcraft (see Table 1 for examples). We found other folk-healers and midwives listed on the Survey of Scottish Witchcraft, but they did not have these characterisations as their witchcraft accusations did not refer to this work. For example, Bessie Roy (1590), occupation nurse, and beggar 'once midwife' Marion Purdie (1684) (Larner et al., 1977, p247).

3.1. Demographic details

Eighty-three percent were women ($n = 118$) with 24 men (17 %). Their trial end dates were 1572 to 1708 (28 were accused pre-1600, 75 between 1600 and 1649, 39 from 1650 to 1708). Only 23 % had any age provided, ranging from 23 to 84 years. Amongst the five oldest, three were men aged over 60 years (see Table 1). Marital status was infrequently recorded (26 %) but some women were noted as cohabiting. Whether women had children was rarely mentioned, even for widows. Some individuals were accused alongside other family members. Social status was rarely known but seven were reported as very poor/vagabonds. Others were noted as requesting alms and fifteen were said to be middling status. The accused mostly came from central and eastern

Table 1

Examples of individuals with folk-healing or midwifery characterisations listed on the Scottish Survey of Witchcraft.

<i>Bessie Dunlop</i> ^a (1576), from Lyne, Ayrshire. Folk-healer and midwife. Was paid for her work. Married. Husband was a tenant farmer/crofter. Her age is unknown but her trial records indicate she had a baby pre-1547. She was advised on healing by Thomas Reid. He is not listed in the Scottish Survey of Witchcraft as he is described in Bessie's witchcraft trial records as a ghost because he died in battle (1547). Bessie was found guilty and executed.
<i>Alesoun Pierson</i> (1588), from Northeast Fife. Folk-healer. Treated the Archbishop of St Andrews. Learnt her healing from her cousin. He is described on the Scottish Survey of Witchcraft as a 'great scholar and doctor of medicine'. She was previously accused of witchcraft in 1583. Middle aged. Guilty and executed.
<i>Agnes Sampson</i> or <i>Simson</i> (1591), from Dalkeith, Mid-Lothian, 7 miles from Edinburgh. One of Scotland's best-known witches being part of the North Berwick Witch Trials. Her witchcraft accusations include treason. Folk-healer and midwife. Called a Wise Wife. Her un-named daughter was also accused. Learned healing from her father. Following widowhood, she was living in poverty. Was paid and treated high status and poor people. Guilty and executed.
<i>Alesoun Balfour</i> (1594) from the Orkney Islands, off Northern Scotland. Folk-healer. Accused as a witch hired to poison the Earl of Orkney. Little is known about her despite her case being exceptional - her family was tortured in front of her to force a confession. In 1596, the man who hired her (the Earl's brother) was tried and acquitted of poisoning the Earl and it was legally recognised her confession was obtained under torture and it was dismissed. Guilty and executed.
<i>Bessie Aiken</i> (1597), from Edinburgh, possibly Leith. Folk-healer. Occupation midwife. Part of a group of four women who collaborated as healers. Found guilty (November 1597). Not executed due to pregnancy. Held in prison where she had her baby. Released (August 1598) and banished.
<i>Christian Lewinstoun</i> or <i>Levingstoun</i> (1597), from Leith, Edinburgh. Folk-healer. Described as a wisewoman. Part of a group of four women who collaborated as healers. She also found lost goods. Guilty and executed.
<i>Christian Saidler</i> or <i>Sadler</i> (1597), from Blackhous, Lothian. Folk-healer. Part of a group of four women who healed together. Used mercury to treat leprosy. Learned healing from her father. Guilty and executed.
<i>Jonet Stewart</i> (1597), from Canongate, Edinburgh where Holyrood Abbey and a royal residence were located. Folk-healer. Part of a group of four women who worked as healers. Learned her healing from an Italian, John Damiet. She taught Bessie Aiken. Guilty and executed.
<i>Bartie Patersoun</i> (1607), from Newbattle, Mid-Lothian, 8 miles from Edinburgh. Folk-healer. Aged 61 years, a tasker (piecemaker or corn thresher) and poor. He used written notes in Old Scots and Latin with diagrams, symbols and SATOR squares. Had a sick child (no details) whom he tried to heal. Newbattle pre-1560 had a monastery. Guilty and executed.
<i>Thomas Greave</i> (1623), from Kinross. Folk-healer. For one cure which involved an elaborate ritual he received £20 as payment, approximately £3000 today. Guilty and executed.
<i>Bessie Wright</i> (1628), from Scone, Perth where there had been an Abbey and a royal residence. Folk-healer and midwife. Age unknown but she had an adult son and a daughter-in-law. Bessie was reprimanded in 1626 and told to stop using her medicinal cures in Perth. Her 1628 accusations were partly infringement of this. Described as middling status but her bail bond was set at £1000 (circa, £200,000 today). Used her grandfather's 1000-year-old book in her healing - this had previously been taken from her. Her son read extracts from the book to her. Fate unknown.
<i>Alexander Drummond</i> (1629), from Auchterarder, Perthshire. Aged around 75 with a 50-year folk-healing reputation. Was paid. Described of middling status. Had a son. Was said to have written notes. Reported to treat mental health conditions, cancers, skin infections and venereal diseases. Was in public dispute with the Protestant Church for his oracles. Guilty and executed. After his death there was a campaign to posthumously clear his name.
<i>Alison Nisbet</i> (1632), from Chirnside, Berwickshire on the Scotland/England Border. Folk-healer and Midwife. One accusation against her involved competition with another midwife for a client. Had a 13-year witch reputation. Married but in a relationship with another man (a minister's servant). Her mother fled to England after a commission was granted for her arrest. Guilty and executed.
<i>Bessie Graham and Thomas Paton</i> (1650), from Dumfries. Folk-healers. This married couple were a healing team; Bessie was the leader. He was accused of 'laying' (putting) sickness on people which she then lifted. They were paid for healing. She seemed to specialise in healing children. They were of middling status with horses, sheep, and a servant. They were involved in local disputes concerning business transactions. Both were guilty and executed. Thomas was the last man executed in the 142 studied.

^a Personal details about individuals are sparse. Date refers to the individual's witchcraft trial end. In this era, married women used their family surname. Sources: [Larner et al. \(1977\)](#); [Pitcairn \(1833\)](#); [Goodare et al. \(2003\)](#).

Scotland and the Northern Orkney Islands. Reflecting the era, the accused's race and ethnicity was not mentioned.

3.2. Witchcraft accusations, trial investigations and outcomes

In addition to folk-healing and/or midwifery related witchcraft accusations these 142 had other accusations against them (see [Table 2](#)). Mostly (54 %) they were accused of causing harm to others (maleficium). These accusations were usually broad such as a patient died. Thirty-eight percent had an accusation relating to unorthodox religious practices with 35 % accused of witchcraft for demonic reasons ([Table 2](#)). Beliefs involving fairies or elves and neighbourhood disputes were reported in over 20 % of witchcraft accusations. Some had longstanding witchcraft reputations - 50 years in Alexander Drummond's case (1629).

Some records gave insight into how the accused were treated including several who were tortured before confessing their guilt (this information is distressing). For example, Agnes Sampson (1591) was tortured and confessed when a witches' mark was found on her privates. Alesoun Balfour (1594) confessed when her husband and young children were tortured in front of her - she was executed, her family's fate unknown. In 40 % of cases the trial outcome was unknown, sometimes because the accused was fugitive but, often execution was suspected. Some trials (8 %) had other outcomes including acquittal but 51 % of the accused were found guilty with 90 % ($n = 65$) executed or received other

punishment such as branding.

3.3. Folk-healing and midwifery practices

Most (98 %) had witchcraft accusations for folk-healing. Ten had a midwifery characterisation with three of these also working as folk-healers. Whilst only 10 had a midwifery characterisation, more than 10 were providing midwifery services. For example, Bessie Aiken (1597) only had a folk-healing characterisation but her occupation is listed elsewhere ([Larner et al., 1977](#)) as midwife. Some of the accused provided other services including helping with infertility, prophesying, finding lost goods, and providing protective magic. Thirty-eight also worked with animals. Some men worked as midwives. Several worked together including husband-and-wife healing team Bessie Graham and Thomas Paton (trial dates 1650). Christian Saidler, Christian Lewinstoun, Bessie Aiken and Jonet Stewart healed together. These four women were all tried together in Edinburgh (1597) and found guilty, but Bessie Aiken escaped execution and was released in 1598 after having a baby in prison. Some women reportedly learned their healing or midwifery practices from other women, but five 16th century women learned from men including Agnes Sampson (1591) and Christian Saidler (1597) who were taught by their fathers. Bartie Patersoun (1607), Bessie Wright (1628) and Alexander Drummond (1629) used written notes/sources. Bessie Wright said her knowledge came from a 1000-year-old book that belonged to her grandfather. Patersoun's

Table 2
Characterisation of witchcraft accusations against the 142 individuals studied.

Folk-healing	98 % (n = 139)
Maleficium (causing harm)	54 % (n = 77)
Not enough information to enable characterisation	41 % (n = 58)
Unorthodox religious practice (URP)	38 % (n = 54)
Demonic e.g. met with the Devil, had a demonic pact	34 % (n = 48)
Implicated by another witch	25 % (n = 36)
White magic	25 % (n = 35)
Fairies i.e., their case involved fairies	23 % (n = 32)
Neighbourhood disputes	21 % (n = 30)
Midwifery	7 % (n = 10)
Refused charity	4 % (n = 6)
Consulting another witch	3 % (n = 4)
Other characterisations included: treason, demonic possession, political motive.	1 % or less for each

Notes: Characterisations is a 'fixed list of important cultural elements and social relationships found in witchcraft documents' (Goodare et al., 2003). Individuals often had multiple witchcraft characterisations e.g. folk-healing, midwifery, maleficium and implicated by another witch.

written notes contained Latin words, drawings, and symbols.

Little information was provided about the accused's patients; often records simply said they helped a sick person or eased someone's pain. Eighteen were reported as being paid (in money or kind) for their services and some had wealthy patients including Thomas Greave (1623). Agnes Sampsone (1591) had elite male patients; Christian Saidler (1597) cared for lepers. Details of individual human healing and/or midwifery practices were sometimes missing but 73 % had some details provided and these practices could be categorised as rituals, religious practices, and treatments. Ritual practices commonly included movement such as the patient or healer walking around a tree. Actions were frequently completed three, nine or 12 times. Rituals sometimes involved stones or fire. Circlets made of green thread, yarn, or woodbine (honeysuckle) were often used including for women in childbirth. Sick people's shirts were frequently mentioned as being washed in running

Table 3
Some examples of ritual and religious practices used in their work.

<i>Isobel Strauthquhin</i> (1597) took dead people's bones and rinsed them in water. The water was then used to cure a sick person and the bones were thrown in a river.
<i>Agnes Sampsone</i> (1591) said a version of the Lord's Prayer and Ave Maria.
<i>Bartie Patersoune</i> (1607) told a patient to go onto his knees three nights in a row, three times a night to ask Jesus for this health. Used loch [lake] water and made references to the Father, Son and Holy Ghost.
<i>Catherine Caray</i> (1616) used a thread and gave it in the name of the Father, Son and Holy Ghost and said 'bone to bone, sinew to sinew, and flesh to flesh and blood to blood' to cure man or beast. Took earth and stone from where a man was slain to cure an ulcer. Used stones to diagnose and cure spirit illness.
<i>Barbara Scord</i> (1616) used a thread to cure sleeplessness – a man was to wear it around his head for nine nights and then burn it. She did crosses and conjurations over the thread.
<i>Steven Malcome</i> (1628) used south running water. Would charm sarks [shirts] with water and words. Carried a sick child over a dyke [wall] to cure it. Told a father to take his child outside at 11 or 12 o'clock, lay his hands on the child and shake his drawn sword over it. Identified where a woman had got sick, told her to go there and seek her health in God's name.
<i>James Knarstoun</i> (1633) used three hot stones (one for the ebb, hill and church yard) and placed them in a door lintel, said words as a cure. Used water taken from St. Mary's well at midnight.
<i>Margaret Sandieson</i> (1635) sprinkled water on someone's head three times for a cure. Touched a woman's head with three small stones three times for a cure.
<i>Gilbert Robison</i> (1644) used nail trimmings which were to be placed between the bark and rind [inner bark] of a tree. Used nail pairings to transfer sickness.
<i>Margaret Ogg</i> (1650) prayed to God and Our Lady, three times, to help labour pains.
<i>Jonet Miller</i> (1658) performed a cure where someone had to sit between three fires and a ritual with smoke and fire to get a man out of the witch's grip. Advised a man to use south running water and fox tree leaves. Advised to keep the bible close for a cure for distemper.
<i>Issobell Bennet</i> (1659) to cure blasted [bewitched] people, she washed them with water from the hollow ground after an ebb in the sea with some meal and straw placed in four corners of the bed and she used a horseshoe, hook, and piece of raw flesh. She said Father, Son and Holy Ghost, three times. To cure maw turn [nausea] she walked people around an oak pole three times and said some words to God and St. Brisbane.
<i>Bessie Stevenson</i> (1659) washed sick people's clothes in St. Ninians Well to 'end them or mend them'. Laid two fox tree leaves under their head and middle. Cured maw turning by leading people around an oak tree three times and repeating [unknown] words.

water. Human products were often used, usually nail clippings but occasionally a dead person's bones. Religious practices frequently involved the healer or midwife referring in their work to the Lord's Prayer, the Holy Trinity, Our Lady and/or the Saints. Religious practices also included healers using holy wells and making the sign of the cross. Examples of rituals and religious practices are shown in Table 3.

Less often the witchcraft trials referred to treatments, either advised by the folk-healer or administered by them. Treatment records were often vague, for example, only mentioning that a healer gave a patient a drink containing herbs, but no details are provided of the type of herbs, how the drink was prepared or why it was needed. However, there were some clear examples of treatments being used for ingestion (drinks, food supplements), application (salve, poultice, or dressing) or bathing (see Table 4). Treatments often involved health foods/drinks. The best treatment examples, involving the most items or more complex preparation, were mainly found pre-1600, such as what seemed to be a leg dressing in 1579.

Plants were frequently cited as used in treatments. Mostly these were freely and locally available such as nettles. Poisonous plants, including meiklewort (belladonna), were occasionally used in treatments. (When foxglove use was reported, it appeared to be within rituals). Animals were commonly used in treatments, often in foods, and were specifically referred to by their colour (red, black, or green) and as being young e.g., kittens. Animal products, including blood, were usually ingested as food, or applied to the skin. Alcohol was often used within drinks, mixed with items such as eggs. Some treatments contained items grown further away or imported such as liquorice, saffron, almonds or sugar. At the time these products were exotic and expensive.

4. Discussion

Individually, little is known about these 142 accused but, collectively their records highlight factors that contributed to their witchcraft accusations. Individuals were often not conforming to social norms, such

Table 4
Products used within treatments.

Alcohol and alcohol related products

What used, how (if known) and by whom (by trial end date):

- Ale with ginger, liquorice, clover, and aniseed in a drink (Bessie Dunlop, 1576)
- Claret mixed into a drink with ewe's milk (Alesoun Pierson, 1588)
- Aqua vitae rubbed onto a patient (Agnes Sampson, 1591)
- White wine with camomile and broom (Christian Lewinstoun and Christian Saidler, 1597)
- Sweet wort (used in brewing) with butter in a drink (Christian Saidler, 1597)
- Vinegar and white wine used to soak eggs (Agnes Sampson, 1597)
- Aqua vitae, black wool and garlic used to cure a cold and colic (Janet Cock, 1661)
- Ale mixed with egg to make a drink (Catharin Mactargett, 1688).

Animals/animal products

What used, how (if known) and by whom (by trial end date):

- Snails, clay and black cloak wool to cure a bad leg (Jonet Carswell, 1579)
- Milk boiled with herbs and claret wine to make a drink (Alesoun Pierson, 1588)
- Egg soaked in vinegar or white wine (Agnes Sampson, 1591)
- Butter mixed with herbs and saffron to make a drink (Isobel Cockie, 1597)
- Butter with sweet wort to make a drink (Christian Saidler, 1597)
- Red cockerel blood baked into a bannock [flat cake] (Christian Saidler, 1597)
- Butter as a salve (Bessie Aiken, 1597)
- Kittens and green (4-month) goose roasted to make salve as skin rub (Bessie Aiken, 1597)
- Butter used with water to heal the gut (Andrew McJohn, 1603)
- Moules of a black cow^a advised for use by a sick man (Thomas Paton 1650)
- Egg mixed with ale (Catharin Mactargett, 1688).

Minerals and metals

What used, how (if known) and by whom (by trial end date):

- Mercury used to treat leprosy (Christian Saidler, 1597)
- Salt water used for a cure (Bessie Aiken, 1597)

Plants, seeds, and nuts

What used, how (if known) and by whom (by trial end date):

- Aniseed, cloves, ginger, and liquorice with white sugar and ale (Bessie Dunlop, 1576)
- Flax root cooked to make a salve or dried to make a powder (Bessie Dunlop, 1576)
- Unnamed herbs mixed into a tea (Alesoun Pierson, 1588),
- Saffron mixed with butter and unnamed herbs for a drink (Isobel Cockie, 1597)
- Camomile with broom in white wine (Christian Lewinstoun and Christian Saidler, 1597)
- Sorrell used with livery kale to open closed heart pipes (Helene Frasser, 1597)
- Wheat mixed with blood to make a bannock (Christian Saidler, 1597)
- Woodbine combined with heated resin for a bath (Christian Saidler, 1597).
- Red nettles to cure loin pain (Bessie Aiken, 1597)
- Almonds ground with egg whites applied to women's faces (Bartie Paterson, 1607)
- Hyssop, plantain, rippel grass, waffron leaf and fennel (Bessie Wright, 1628)
- Meiklewort (deadly nightshade) to make an oil to cure (James Knarstoun, 1633)
- Garlic used with black wool and aqua vitae for a cold and colic (Janet Cock, 1661)
- Onions boiled with a sheep's draught to make a drink (Catherine Mactargett, 1688)
- Tobacco to be smoked in a church to cure sickness (Elizabeth Ratter, 1708).

^a Meaning unclear. Moules translates to chilblains. Moul translates to earth or corpse dust and soil, possibly cow dung – all these were used in healing at the time.

as women with illegitimate children. Although few reportedly received payments (money or in-kind) for healing/midwifery work, many would have as this was a means of earning especially for women but, confronting those who owed them payment, increased the risk of a neighbourhood dispute contributing to a witchcraft accusation. Folk-healers and midwives were vulnerable to accusations of maleficium. Without modern healthcare, adverse outcomes would have been inevitable for many of those who were sick or giving birth regardless of the healer or midwife's action(s).

Those we studied were frequently accused of 'failed healing' when nothing could be done to prevent a patient's death or disability. Yet, when they successfully helped someone, they could still be accused of maleficium as it was said they had transferred illness or pains onto someone else. Folk-healers and midwives were also at risk of being perceived as engaging in demonic activity. Thirty-five percent of those studied had a demonic element within their witchcraft accusations, compared with 18 % of those named on the SSW overall. This figure is unsurprising given that conditions which cause hallucinations and/or uncontrolled movements, such as infection related confusion or seizures,

could be perceived as being caused by the folk-healer or midwife's demonic activity. Additionally, folk-healers and midwives who successfully helped others had their success attributed not to their expertise but from having devilish help or supernatural assistance.

Folk-healers and midwives were susceptible to witchcraft accusations when their work evidenced non-conformist beliefs. Several, for example, were accused of diagnosing or healing sickness caused by elves and some trials had references to changelings, babies taken by fairies. Pagan or Celtic beliefs were also noted, such as stones representing the tide in one ritual. Fifty-four (38 %) had an unorthodox religious practice (URP) witchcraft characterisation, accounting for 64 % of those named on the Survey of Scottish Witchcraft with this characterisation. During this era, witchcraft was a religious and political crime in Scotland (Goodare, 2002, p.52). In 1560, Scotland underwent religious reform moving from being a Catholic country to a Calvinist Protestant one. Amongst those individuals studied, pre-Reformation religious beliefs and practices featured strongly in their healing/midwifery work, many of which can be traced to earlier medieval healing (Burrige, 2022). However, elements such as praying to Saints whilst acceptable and orthodox practice in a Catholic country, became unacceptable and unorthodox in a Protestant one. For example, placing circlets around women's abdomens in childbirth became problematic as protective girdles in childbirth were associated with Catholicism (Donnison, 1988). Post-Reformation childbirth pains were also seen as God-given so, removing them, as Agnes Sampson (1591) did, was considered ungodly (Pitcairn, 1833). By the 1800s knowledge of domestic medicine by British Protestant clergyman was accepted (Graham, 1840) and spiritual wellbeing was central to 19th century UK nursing reforms. Supporting patients with their spiritual needs remains an essential element of holistic healthcare (Roper et al., 1996; Ramezani et al., 2014; Timmins et al., 2022) but, for those studied, publicly demonstrating pre-Reformation religious practices within their healing/midwifery work, signified non-conformity to the new post-Reformation Protestant orthodoxy, contributing to their witchcraft accusations.

4.1. The witch healer/midwife stereotype

The stereotype healer/midwife accused of witchcraft is an old, uneducated woman who used simple folk charms and rituals learnt from other women. Most of those studied met this stereotype but, about 10 % did not. This included old men, a pregnant woman, women who learned healing from men, those who knew about exotic expensive items, and those with written notes/sources. This sub-group used items that appear in the *Materia Medica* of traditional medicines often within compound treatments, mixing two or more substances (De Vos, 2010), rather than the simple one substance treatments traditionally associated with witch/healers. The health benefits of many of the plants, herbs and spices they used are still recognised today for their healing properties and some items such as fennel and ginger remain in use. This group used items which physicians also used into the 17th and 18th centuries (Culpepper, 1653; Cowen, 1957; Chamberlain, 1981). Others have reported that healers/midwives accused of witchcraft and physicians shared practices, for example, Chamberlain (1981). Our research is novel by naming some of these practitioners and by highlighting that a few had healing/midwifery practices which show evidence of being linked to, or derived from, learned medical thought. These individuals may not have been formally educated but whoever taught, or advised, them about healing had access to the type of knowledge, which at the time, was held by elite powerful groups. For example, Thom Reid's advice to Bessie Dunlop (1576) of a drink of warm spices to treat a patient's cold blood seems to reflect Galenic medical theory and the need to balance the humours (Nutton, 2005). Christian Saidler (1597) is the only Survey of Scottish Witchcraft listed person using mercury. Mercury was used from medieval times until the 1900s to treat skin conditions including leprosy (Williams, 1923; Cox, 2018; Gilchrist, 2020). She learned healing from her father, which suggests he may have known about the use of mercury

in treatments by Paracelsus the Swiss physician and alchemist (died-1531) (Banchetti-Robino, 2011). Englishwoman Lady Grace Mildmay (1552–1620) also used mercury in healing, and her physicking skills were publicly recognised on her natural death (Cox, 2018). By contrast, Saidler was executed as a guilty witch and her work forgotten. Religion and class may have contributed to their different fates. Mildmay was a wealthy Protestant Puritan. Whilst Saidler's religion and social status are unknown and she was not accused of URP, two of those she healed with were.

A dominant narrative that folk-healers and midwives accused of witchcraft were all uneducated, female practitioners has obscured the existence of this small sub-group of women and men whose work incorporated best or advanced healthcare practice for the time. Although evidence of their healing and midwifery work within the Survey of Scottish Witchcraft lacks detail, these individuals were healers not folk-healers, with their practice linked to education rather than folklore, and they seem to disappear from witchcraft trials records by the early 1600s. This loss is not simply due to them being executed as witches. It is indicative of wider societal change across Europe from the medieval period to restrict and prohibit the public practice of non-university educated healers including women (Green, 1989; Whaley, 2011). In this period, male physicians were professionalising, restricting the legitimate practice of physicking to mean their work. Whilst physicians on the west side of Scotland established a college in 1599 (Geyer-Kordesch and MacDonald, 1999), those on the East were still complaining in 1617 of the need for a college because of the 'evils' of 'irregular practitioners' (RCP, 1925, p.31). Although we found no examples of physicians accusing anyone of witchcraft, indirectly they benefitted from the execution of these witch/healer practitioners as their deaths removed competition for the few patients who could afford their high fees and expensive treatments. In England there is a record of male and female irregular medical practitioners (1550–1640) who the London College of Physicians sought to prevent from practising (Pelling and White, 2004). Scotland does not have similar records systematically documenting irregular medical practitioners in this period. Nevertheless, by enabling identification of the healer sub-group, especially those in Edinburgh and the surrounding districts, the Survey of Scottish Witchcraft gives insight into some of those people whom Scotland's physicians would have classed as irregular and illegitimate practitioners.

4.2. Reflecting on their practices from a nursing and midwifery perspective

Those studied practiced before nursing and midwifery were professionalised. Their work was not confined by regulated boundaries, but was fluid (Green, 1989, p.439) in responding to local needs. Many of the accused provided healing and midwifery services, some also acted as vets. In this era, women workers lacked strong occupational identities (Carter, 2023) and, our findings highlight that some men did too. We found few explicit references to nurses or nursing. It seems nursing work was not perceived as witchcraft. Perhaps because nursing was provided by families within the home whereas those accused of witchcraft practised outside their homes. Whilst the terms 'nurse' or 'nursing' were rarely mentioned, we found many examples of the accused's work that resonates with more recent nursing and midwifery practice. This included their holism promoting physical and spiritual wellbeing, their use of poultices, salves/unguents, specialist food/drink and a dressing. Items they used, including animal products and alcohol, were commonly used in 20th century nursing dietary supplements (Morton and Taylor, 1942), such as in calf-foot jelly (Gray, 1930:42) and eggs were used in gastrostomy feeding (Houghton, 1946). Butter and water were used to 'heal the gut' (Table 4), potentially as an enema. Enemas were used from the 1300s for digestive orders (Montford, 2017) and nurses used water and lipids in enemas into the mid-1900s (Houghton, 1946). Some of the research team also recall in the 1980s using eggs for neonatal nappy rash

and administering prescribed alcohol to in-patients.

Treatment efficacy depended on the ingredients used and associated rituals (Miller, 2002). The use of rituals also connects the accused witches to more contemporary nursing practice. Rituals in nursing work have long been recognised (Walsh and Ford, 1989) and despite the introduction of evidence-based practice, some remain in recent times (Greenway, 2014). Washing, mostly of shirts but sometimes people, commonly featured in rituals. Whilst the reason for this was likely a belief that washing transferred sickness into running water to be taken away, these actions have contemporary nursing relevance. Wet shirts on patients would cool fevers in the absence of fans and anti-pyretics. Actions such as burning, in one case a sick person's belongings, would fumigate rooms or prevent the spread of plague. Other interventions considered as rituals would have created a placebo effect (Miller and Miller, 2015) or acted as guided imagery, promoting mindfulness, reducing pain and anxiety. However, any practical use underlying such actions was dismissed at the time of the trials and since. This combined with incomplete reporting of healing/midwifery practices during the witchcraft trials creates a picture whereby such actions were done solely for superstitious ritual reasons.

Religion emerged as a strong theme in this study. Florence Nightingale learned from religious nurses but the connection between nursing and religion goes further back (Tooley, 1900; Baly, 1997). European hospital nursing history originates in the medieval Catholic religious orders (Tooley, 1900; Abel Smith, 1960; Baly, 1994) with nursing provided by monks and nuns. British Protestant Reformation in the 1500s 'devastated' this system of care (Strocchia, 2014) as Catholic monastic orders and hospitals ceased to exist. Some English Catholic hospitals were secularised and continued to operate post-Reformation (Griffin, 1998; Methuen and Spicer, 2022). The names of some religious healers in Europe in the 16th century are known (Whaley, 2011) but nothing is known about such people in Scotland pre- or post-Reformation although there were Scottish monastic hospitals including in nunneries (Parbury, 1985). Whilst we found no evidence of religious nurses (lay or professed) working post-Reformation, our findings suggest potential links to earlier monastic houses and religious hospitals by those who taught the few who did not meet the witch/healer stereotype. The treatments and practices used by this sub-group appear informed by knowledge of alchemy, astrology, medical theory, medical herbalism and/or botany, knowledge which pre-Reformation was only held by elite groups including the religious orders (Campbell et al., 2018; Montford, 2017). Sixty-one-year-old Bartie Patersoune's healing (1607) involved Catholic religious practices, written drawings, symbols and SATOR squares indicative of learned magical practice linked to astrology. Pre-Reformation international healers using such practices included Paracelsus and Cardano (Webster, 1993; Maclean, 2007; Banchetti-Robino, 2011). Patersoune's healing links can be traced to an earlier period when the boundaries between spiritual and magical practices were more permeable in the religious orders (Gilchrist, 2020), and it may be no coincidence that he lived near a former Abbey. Christian Saidler (1597) cared for stigmatised lepers. The monastic orders had a history of treating lepers and leper hospitals were religious establishments (Ritchie, 2007; Methuen and Spicer, 2022). She, worked in and around Edinburgh, Scotland's capital, and lived in Blackhouse. Although this location is unknown today, it could suggest a connection to the former Edinburgh Dominican (Blackfriars) Friary through her father. Alternatively, she, or one of the women she worked with, could have been connected to the former Edinburgh Dominican nunnery, as some nuns still lived on that site in the decade before her witchcraft trial (ELAFNS, 1952). Other potential links to the religious orders include Bessie Wright's (1628) grandfather's healing book. Monastic healers had early medical texts (Montford, 2017; Gilchrist, 2020). Bessie lived in an area where the Catholic monastic houses had been destroyed in riots (1559) (Rhodes, 2021). The accused witch/healers we found, as opposed to the folk-healers, may have been unconnected with the former religious houses and early monastic hospitals themselves but, their witchcraft

records suggest that whoever taught them may have had such connections.

5. Study limitations and strengths

The study was conducted remotely (January – August 2021) using secondary analysis of the Survey of Scottish Witchcraft online dataset as Covid-19 restrictions prevented physical access to primary sources. Our study focused on those with Survey of Scottish Witchcraft characterisations of folk-healing or midwifery. Others providing such services but without these characterisations were not studied. The Survey of Scottish Witchcraft's focus is witchcraft trials, not healing or midwifery practices, and reports out of context extracts from original trial documents. These records were written from the perspective of male witchcraft investigators who held a particular worldview regarding what constituted orthodox religious beliefs, healing practices, and gender norms. This was the first study of Scotland's healers and midwives accused of witchcraft from a nursing and midwifery perspective and, as witchcraft was a criminal offence, in conjunction with law which is novel. Team expertise lies in the histories of nursing, midwifery, and law rather than the history of witchcraft. The Survey of Scottish Witchcraft whilst a secondary dataset enabled easy identification of those accused of witchcraft with folk-healing or midwifery characterisations across the Witchcraft Act's duration (1563–1736) and across Scotland. This enabled a more complete picture to emerge than previously as before this database existed researchers had to restrict their investigations to specific locations and/or time periods. To create stories, data collection needs to generate rich results (Bourbonnais and Michaud, 2018). Although individual data lacked depth, overall, the Survey of Scottish Witchcraft provided a wealth of information on 142 people and allowed identification of a sub-group of healers/midwives requiring primary investigation.

6. Conclusions

This innovative historical research did not study a nursing or midwifery icon, prestigious hospital, or organisation but a group of women and men accused of witchcraft between 1563 and 1736 for their (folk)-healing or midwifery work. The 142 studied do not represent all those providing healing and midwifery services caught up in Scotland's witchcraft trials, but study findings can make a unique contribution to nursing and midwifery history teaching. Although we found few explicit references to nurses, across all those studied aspects of their 16-17th century work were identifiable within more contemporary nursing and midwifery practice at least until the mid-late 20th century. This included activities such as the easing of pain, administering of healing preparations and their use of rituals and certain products. However, for the accused healers these activities are recorded in their witchcraft trials as causing harm to others. Those studied provided holistic care with their work including aspects of what today sit within separate professions including nursing, midwifery, medicine, and pharmacy. Mostly those studied conformed to the healer/midwife witch stereotype of uneducated folk practitioners but, there was a small sub-group of practitioners whose healing appears to be derived from, or linked to, education. This sub-group worked in similar ways to physicians yet, unlike them their work was perceived as unorthodox and witchcraft. Being executed as a witch only partially explains why this sub-group disappear from the witchcraft trials in the early 1600s. This loss also reflects moves across Europe to restrict the legitimate practice of physicking to the work of male university educated doctors and to prohibit 'irregular medical practitioners' from publicly practising. Witchcraft accusations and physician professionalisation resulted in this healer sub-group being marginalised and their work derided because they were women and/or the wrong religion post-Protestant Reformation (1560). The impact of this long-ago gendering and marginalisation shaped the context for British nursing and midwifery reform, as by the 19th century both were seen as women's work, with nursing and midwifery practice and

knowledge regarded as subordinate to that of medicine practised by men. As female-dominated nursing and midwifery professionalised, they in turn marginalised minority groups and, the consequences of which still impact today as these professions strive to be more inclusive by, for example, recruiting more men and recognising the contribution (past and present) of those from different ethnic groups.

European hospital nursing originates in the medieval monastic houses but, little is known about the monks and nuns who provided early nursing care. Whilst we found no evidence of any Catholic religious nurses, witchcraft trial records for the healer sub-group working in the 1500s/early 1600s provide strong evidence of Catholic healing practices and the type of 'elite' knowledge found in the monastic houses pre-Protestant Reformation. This suggests that whoever taught this sub-group may have been connected to the former religious hospitals pre-1560. Scotland's accused witches are of international importance and have been extensively studied by other disciplines and, whilst others have found that accused witch/healers used Catholic healing practices, we are the first to recognise the significance of this finding because of the potential link to early monastic hospital nursing. This study therefore provides new insight into an unresearched area of international nursing history by highlighting how some religious nurses may have practiced before and after Protestant Reformation. Finally, this research challenges the perception that nursing and midwifery history is boring. Unexpectedly, this study has resonated hugely with the public, enabling the researchers to connect with community groups, artists, podcast, and filmmakers as well as students in our own disciplines. This interest suggests including such research within nursing and midwifery history teaching would have significant appeal for nursing and midwifery students.

Author statement

The authors have no conflicts of interest to declare and the manuscript has not been published and is not being considered for publication elsewhere. All authors participated in the research, all contributed to the revision of this manuscript and approved its content ahead of submission.

Contribution

NR., NM, R-DW contributed to the study design. All authors contributed to data collection, analysis and manuscript preparation.

Funding

The project was funded (2021) by an RCN Foundation Award in support of the International Year of the Nurse and Midwife 2020.

Declaration of competing interest

There is no conflict of interests.

Data availability

This study was a secondary analysis of an existing data set. All data were in the public domain being accessible on the freely available *Survey of Scottish Witchcraft* (Goodare, J., Martin, L., Miller, J., Yeoman, L. 2003. <http://www.shca.ed.ac.uk/witches/>)

Acknowledgements

The researchers wish to acknowledge Dr. Jen Murray, Debbie McGirr, Claire Mitchell K.C. (Project Steering Group), Heather Upfield of Kilwinning Heritage and give very special thanks to Professor Julian Goodare, University of Edinburgh, and the creators of the *Survey of Scottish Witchcraft* (Goodare J., Martin L., Miller J., Yeoman L. 2003)

available at: <http://www.shca.ed.ac.uk/witches/>) as without their innovative database this project would not have been possible.

Ethical approval statement

Ethical approval was obtained from Edinburgh Napier University, School of Health and Social Care.

References

- Abel Smith, B., 1960. *A History of the Nursing Profession*. Heinemann, London.
- Baly, M., 1994. *Nursing and Social Change*, 3rd ed. Routledge, London.
- Baly, M., 1997. *As Miss Nightingale Said ... Florence Nightingale through Her Sayings – A Victorian Perspective*, 2nd ed. Bailliere-Tindall, London.
- Banchetti-Robino, M., 2011. Ontological tensions in sixteenth and seventeenth century chemistry: between mechanism and vitalism. *Found. Chem.* 13, 173–186.
- Bourbonnais, A., Michaud, C., 2018. Once upon a time: storytelling as a knowledge translation strategy for qualitative researchers. *Nurs. Inq.* 25, e12249 <https://doi.org/10.1111/nin.122249>.
- Burridge, C., 2022. Healing body and soul in early modern Europe. In: Methuen, C., Spicer, A. (Eds.), *The Church in Sickness and in Health*, *Studies in Church History*, vol. 58, pp. 46–67. <https://doi.org/10.1017/stc2022.23>.
- Campbell, A., Gianfrancesco, L., Tarrant, N., 2018. Alchemy and the mendicant orders of late medieval and early modern Europe. *Ambix* 65 (3), 201–209.
- Carter, P., 2023. Work, gender, and witchcraft in early modern England. *Gen. Hist.* 1-18 <https://doi.org/10.1111/1468-0424.12717>.
- Chamberlain, M., 1981. *Old Wives Tales: The History of Remedies, Charms, and Spells*. The History Press, Stroud.
- Cowen, D., 1957. The Edinburgh pharmacopoeia. *Med. Hist.* 1 (2), 123–139. <https://doi.org/10.1017/soo25727300021049>.
- Cox, H., 2018. 'A most precious and excellent balm': the theory and practice of medicine in the papers of Lady Grace Mildmay 1552-1620. *Midl. Hist.* 43 (1), 22–42.
- Culpepper, N., 1653. *The Complete Herbal*. Thomas Kelly, London. www.gutenberg.org (accessed August 2021).
- Davis, S., 1995. A mandate for nursing history in nursing curricula. *J. Nurs. Educ.* 34 (9), 427–430.
- De Vos, P., 2010. European materia medica in historical texts: longevity of a tradition and implications for future use. *J. Ethnopharmacol.* 132, 28–47.
- Donnison, J., 1988. *Midwives and Medical Men: A History of the Struggle for the Control of Childbirth*, 2nd edition. Historical Publications, New Barnet.
- Donohue, P., 1991. Why nursing history? *J. Prof. Nurs.* 7 (2), 7.
- East Lothian Antiquarian and Field Naturalists' Society (ELAFNS), 1952. *Transactions of the Society*, Vol. V. D. and J. Croal, Haddington.
- Franks, B., 2017. *The Scottish Witchcraft Trials: From Heresy to Tourism*. Masters thesis. Sam Houston State University, USA.
- Geyer-Kordesch, J., MacDonald, F., 1999. *Physician and Surgeons in Glasgow: The History of the Royal College of Physicians and Surgeons in Glasgow, 1599–1858*. Hambleton Press, London.
- Gilchrist, R., 2020. *Sacred Heritage: Monastic Archaeology, Identities, Beliefs*. Cambridge University Press, Cambridge 2021. <https://doi.org/10.1017/9781108678087.004> (accessed June).
- Goodare, J., 2002. The Scottish witchcraft panic of 1597. In: Goodare, J. (Ed.), *The Scottish Witch-Hunt in Context* Manchester University Press. Manchester.
- Goodare, J., Martin, L., Miller, J., Yeoman, L., 2003. The survey of Scottish witchcraft. <http://www.shca.ed.ac.uk/witches/>.
- Graham, T., 1840. *Modern Domestic Medicine: A Popular Treatise. A Comprehensive Medical Guide for the Use of Clergymen, Heads of Households and Invalids*, 8th ed. Simpkin and Marshall, London.
- Gray, W., 1930. *The Nurse's Dictionary*, 13th ed. Faber and Faber, London.
- Green, M., 1989. Women's medical practice and healthcare in medieval Europe. *Signs* 14 (2), 434–473.
- Greenway, K., 2014. Rituals in nursing: intramuscular injection. *J. Clin. Nurs.* 23, 3583–3588. <https://doi.org/10.1111/jocn.12627>.
- Griffin, J., 1998. London's medieval hospitals and the reformation. *J. R. Coll. Phys. Lond.* 32 (1), 72–76.
- Grympa, S., 2017. Historically-informed nursing: the untapped potential of history in nursing education. *Qual. Adv. Nurs. Educ.* 3 (1) <https://doi.org/10.171483/2368-6669.1099>.
- Holme, A., 2015. Why history matters to nursing. *Nurse Educ. Today* 35, 635–637.
- Houghton, M., 1946. *Aids to Practical Nursing*, 4th ed. Bailliere Tindall, London.
- Kelly, J., Watson, R., 2015. An integrative review of the literature on the teaching of the history of nursing in pre-registration adult nursing education in the UK. *Nurse Educ. Today* 35, 360–365.
- Lait, M., 2000. The place of nursing history in an undergraduate curriculum. *Nurse Educ. Today* 20, 395–400.
- Larner, C., Hyde Lee, C., McLachlan, H., 1977. *A Source-Book of Scottish Witchcraft*. University of Glasgow, Glasgow.
- Latner, R., 2008. The long and the short of Salem witchcraft: chronology and collective violence in 1692. *J. Soc. Hist.* 42 (1), 137–156.
- Lewenson, S., 2004. Integrating nursing history into the curriculum. *J. Prof. Nurs.* 20 (6), 374–380.
- Lorne, Z., 2019. *The Construction and Regulation of Gendered Crime in Scottish Witchcraft Cases, 1560–1661*. Masters thesis. University of Lethbridge, Canada.
- MacDonald, S., 2014. *The Witches of Fife: Witch-Hunting in a Scottish Shire 1560–1710*, 2nd ed. Edinburgh, John Donald.
- Maclean, I., 2007. Girolamo Cardano: the last years of a polymath. *Renaiss. Stud.* 21 (5), 587–607.
- Matthias, A., 2023. The power of the post: a roadmap for integrating nursing history into the curriculum. *J. Prof. Nurs.* 46, 231–237.
- McAllister, M., 2013. History holds the key to resilient nurses and midwives. *The TQN J* 32 (6), 12.
- McAllister, M., Greenhill, J., Madsen, W., Godden, J., 2010. Generating ideas for the teaching of nursing's history in Australia. *Collegian* 17, 13–22.
- Methuen, C., Spicer, A., 2022. The church in sickness and in health. *Studies in Church History* 58, 1–7. <https://doi.org/10.1017/stc2022.23>.
- Miller, J., 1999. *Cantrips and Carlins: Magic, Medicine, and Society in the Presbyteries of Haddington and Stirling, 1603–1688*. PhD Thesis. University of Stirling.
- Miller, J., 2002. Devices and directions: Folk-healing aspects of witchcraft practice in 17th century Scotland. In: Goodare, J. (Ed.), *The Scottish Witch-Hunt in Context* Manchester University Press. Manchester.
- Miller, J., Miller, R., 2015. Understanding placebo effects: implications for nursing practice. *Nurs. Outlook* 43, 601–606.
- Montford, A., 2017. *Health, Sickness, Medicine and the Friars in the Thirteenth and Fourteenth Centuries*. Routledge, Abingdon.
- Morton, H., Taylor, F., 1942. *The Nurses Dictionary*. Faber and Faber, London.
- Nursing and Midwifery Council, (NMC), 2018. *Code of Professional Standards for Practice and Behaviour for Nurses, Midwives and Nursing Associates*, NMC, London.
- Nutton, V., 2005. The fatal embrace: Galen and the history of ancient medicine. *Sci. Context.* 18 (1), 111–121.
- Parbury, K., 1985. *Women of Grace: A Biographical Dictionary and Gazetteer*. Oriol Press Limited, Northumbria.
- Pelling, M., White, F., 2004. *Physicians and Irregular Medical Practitioners in London 1550–1640 Database*. British History Online, London. <http://www.british-history.ac.uk/no-series/london-physicians/1550-1640> (accessed March 2023).
- Pitcairn, R., 1833. *Ancient Criminal Trials in Scotland*, Volumes 1–3. Bannatyne Club, Edinburgh.
- Ramezani, M., Ahmadi, F., Mohammadi, E., Kazemnejad, A., 2014. Spiritual care in nursing: a concept analysis. *Int. Nurs. Rev.* 61, 211–219.
- Records of the Parliament of Scotland, 1563. *Witchcraft Act 1563*. <https://www.rps.ac.uk/trans/a1563/6/9> (accessed March 2023).
- Reed, R., 2021. *Reclaiming Childbirth as a Rite of Passage*. Word Witch Press, Yadina.
- Rhodes, B., 2021. Fury and madness: the statue smashing of 1559. *History Scotland* 21 (4), 37–39.
- Ritchie, M., 2007. *A History of Nursing through Philately*. Teragram, Limekilns.
- Roper, N., Logan, W., Tierney, A., 1996. *The Elements of Nursing*, 3rd ed. Churchill Livingstone, Edinburgh.
- Royal College of Physicians of Edinburgh (RCP), 1925. *Historical Sketch and Laws of the Royal College of Physicians of Edinburgh; from its Institution to 1925*. Morrison and Gibb, Edinburgh.
- Smith, K., Brown, A., Crookes, P., 2015. History as reflective practice: a model for integrating historical studies into nurse education. *Collegian* 22, 341–347.
- Strocchia, S., 2014. Women and healthcare in early modern Europe. *Renaiss. Stud.* 28 (4), 496–514.
- Timmins, F., Connolly, M., Palmisano, S., Burgos, D., Mariano Juárez, L., Gusman, A., Soriano, V., Jewdokimow, M., Sadloň, W., López Serrano, A., Conde Caballero, D., Campagna, S., García-Peñuela, 2022. Providing spiritual care to in-hospital patients during COVID-19: a preliminary European fact-finding. *J. Relig. Health* 61, 2212–2232.
- Tooley, S., 1900. *Nursing Past and Present*. IN Cassell's Science and Art of Nursing: A Guide to the Various Branches of Nursing, Theoretical and Practical. Waverly, London.
- Walsh, M., Ford, P., 1989. *Nursing Rituals: Research and Rational Actions*. Butterworth-Heinemann, Oxford.
- Webster, C., 1993. *Paracelsus, and 500 years of encouraging scientific inquiry*. *Br. Med. J.* 306, 597–598.
- Whaley, L., 2011. *Women and the Practice of Medical Care in Early Modern Europe, 1400–1800*. Palgrave Macmillan, Hampshire.
- Williams, L., 1923. *Minor Maladies and their Treatment*. Bailliere Tindall, London.
- Yilmaz, S., Özbek Güven, G., 2021. An important development for nursing ethics: establishment of nursing history and ethics department and developments in Turkey. *Ethics, Medicine, and Public Health* 17. <https://doi.org/10.1016/j.jemep.2021.100662>.