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Race, class, caste, disability, sterilisation and hysterectomy

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ABSTRACT

This interdisciplinary historical paper focuses on the past and current state of diverse forms of surgical hysterectomy as a global phenomenon relating to population control and sterilisation. It is a paper grounded in historical inquiry but is unconventional relative to the norms of historical scholarship both in its wide geographical scope informed by the methodologies of global and intercultural history, in its critique of current clinical practices informed by recent feminist, race, biopolitical and disability studies, and by its engagement with scholarship in health sociology and medical anthropology which has focused on questions of gender and healthcare inequalities. The first part of the paper surveys existing medical, social-scientific and humanistic research on the racial, class, disability and caste inequalities which have emerged in the recent global proliferation of hysterectomy; the second part of the paper is about the diverse global rationales underlying radical gynaecological surgeries as a form of sterilisation throughout the long twentieth century. Radical gynaecological surgeries have been promoted for several different purposes throughout their history and, of course, are sometimes therapeutically necessary. However, they have often disproportionately impacted the most disadvantaged groups in several different global societies and have frequently been concentrated in populations that are already maligned on the basis of race, ethnicity, age, criminality, disability, gender deviation, lower class, caste or poverty. This heritage continues to inform current practices and contributes to ongoing global inequalities of healthcare.

This interdisciplinary historical paper focuses on the past and current state of diverse forms of surgical hysterectomy as a global phenomenon relating to population control and sterilisation. It is a paper grounded in historical inquiry but is unconventional relative to the norms of historical scholarship both in its wide geographical scope informed by the methodologies of global and intercultural medical history (Moore and Pithavadian 2021; Moore 2021) and in its critique of current clinical practices informed by recent feminist, race, transgender, biopolitical and disability studies, and by scholarship in health sociology and medical anthropology which has engaged with questions of gender and healthcare inequalities (Kennedy *et al.* 2020; Towghi and Vora 2014; Alcalde-Rubio *et al.* 2020; Walker and Rogers 2017). Throughout its modern history, hysterectomy has served the interests of surgical technical advancement, clinician profits, state sterilisation programmes, and

the minimisation of state health expenditure on the treatment of uterine and cervical cancer, rather than best serving the interests of diverse women's ageing health and well-being (Moore *et al.* 2021; Moore 2022; Frampton 2018). This is not to say that hysterectomy is always medically unnecessary. As one of many surgical procedures for the treatment of severe uterine pathologies, conducted with the informed consent of the patient and with adequate aftercare, it may be a legitimate therapy. But its ubiquity throughout the long twentieth century (1890–2022) has also coincided with mass sterilisation programmes around the world, which have disproportionately impacted black, indigenous, lower-class and lower-caste women, as well as women and girls with disabilities (Moore *et al.* 2021; Theobald 2019; Lawrence 2000; Amy and Rowlands 2018; Ladd-Taylor 2014); and a growing movement of patient-centred clinicians and researchers in current gynaecology has criticised the ongoing rampant overuse of hysterectomy for conditions that are treatable in other ways (Stewart, Missmer, and Rocca 2021). The current paper considers this critical perspective in light of the global inequalities of women's healthcare in relation to bodies classified differently according to class, caste, race and disability. It focuses on the relationship between hysterectomy and sterilisation programmes globally, to highlight how in several past and present contexts women of racial and ethnic minorities, women and girls with disabilities, and lower-caste/lower-class women have been disproportionately subjected to sterilisation using hysterectomy.

The first part of the paper surveys existing medical, social-scientific and humanistic research on the health inequalities which have emerged in the recent global proliferation of hysterectomy; the second part of the paper is about the global rationales underlying radical gynaecological surgeries as a form of sterilisation throughout the long twentieth century. Surgeries entailing removal of women's internal reproductive organs have constituted the vast majority of gynaecological surgeries throughout their history (Chen, Choudhry, and Tulandi 2019; Lepine *et al.* 1997; Robinson *et al.* 2017). Removal of the uterus was described as a minor topic of theoretical surgery since the time of Soranus of Ephesus (98–138 CE), and nineteenth-century European doctors justified their novel experiments with it on the grounds of it being an ancient and established practice, though hysterectomy was rarely performed either in ancient history or in early modern medicine (King 2017; Green 2008). Instead, such surgeries became widespread only in



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the second half of the nineteenth-century, along with the development of anaesthesia medications and antiseptic techniques (Marshall 1955). They were thus contemporaneous with another phenomenon which has been well described by historians and social scientists: The growth of eugenic ideas and population-control measures in the global formation of modern national and colonial regimes (Stern 2005; Bashford 2014; Bashford and Levine 2010; Broberg and Roll-Hansen 2005; Ashford 2019). The current paper poses questions about the place of gynaecological surgery at the intersection of medical ideas about race, class, caste, gender and disability in relation to larger biopolitical discourses of ‘population control’ and of managing state health expense in ageing populations. The analysis presented here indicates that radical gynaecological surgeries may have played a more important role than commonly understood in the global emergence of major gendered health inequalities, disproportionately impacting women of racial, ethnic, elder, disability, lower class and caste status, in ways that continue to shape current medical practices.

The paper builds on recent work in the global history of biomedicine focused on how it has been inscribed within colonial and imperial agendas to shape the populations of the global South, as well as those subpopulations within modern Western nation-states deemed less worthy of reproductive rights or bodily integrity because of being poor, uneducated, aged, living with disability, transgender, black, indigenous or part of specific ethnic minorities (Hopwood, Flemming, and Kassell 2018). It is indebted to feminist scholarship in the history of gender-specific medicine, which attends to how specific medical concepts referring to the inferiority and pathology of women have informed the emergence and maintenance of clinical and research procedures which have not served women’s health (Schiebinger 1993; Schiebinger 2001; Tuana 1993). It also takes inspiration from critical scholarship on the intersectionality of gender, class, disability and race which attends to the way distinct forms of discrimination can coalesce and reinforce one another (Bose 2012; Belkhir and Barnett 2001; McCall 2005). The paper is broadly informed by historical, philosophical and sociological studies of biopower—defined as those interventions made by modern states in the vital dimensions (births, deaths, reproduction and ageing) of their subjects or citizens; and of biopolitics—defined as the conceptual grounds made in favour of such interventions and the debates that they elicit (Folkers and Lemke 2014; Kelly 2015; Foucault 2012; Rabinow and Rose 2006). Because the practices described here have been evidenced in several interconnected world regions, the methodological approach taken is global, rather than single-culture focused (Jackson 2018; Ram and Jolly 1998). ‘Global’ here refers, first, to a scope encompassing several (though certainly not all) world regions, including Europe, the UK, the USA and the Indian subcontinent. Second, it refers to the intercultural entanglements of surgical technology with international population prerogatives that have made the development of women’s reproductive medicine subject to domains of modern biopolitics that are not bound within nation-states.

I. RACE, CLASS, CASTE AND RADICAL GYNAECOLOGICAL SURGERIES

There is very scant satisfactory historical scholarship on the most common gynaecological surgery—hysterectomy—with most existing attempts to historicise it being conducted by gynaecologists themselves, rather than by scholars trained in methods of either critical or historical inquiry (Köninger and Kimmig 2011;

Sutton 2007; Sutton 2018; Bauer et al. 2018; García and Miguel 2019; Mettler *et al.* 2013; Damewood 1992; Dursun, Gultekin, and Ayhan 2011; Sparić et al. 2011). Such surveys proposed by medical clinicians have generally sought to demonstrate the ancient origins of the practice of removing the uterus and pay homage to the early innovators of surgical technique. Such histories, claiming to be comprehensive, have focused merely on the celebration of technical developments advanced by male surgeons in Western countries (Sutton 2007; Sutton 2018; Chamberlain 2007; Speert 1958; Speert 1980; Graham 1951; Kerr, Johnstone, and Phillips 1954; Damewood 1992; Sparić et al. 2011; Baskett 2003). They have suffered from an insufficient awareness of the incommensurability of past and present medical contexts and practices, and from an almost exclusive concentration on English-language sources. Such narratives have obscured the gender and racial biopolitics infusing historical and current practices through an overemphasis on masculine technical mastery, linear progress and ancient inheritance. On the other hand, several rigorous scholarly works by professional historians of modern British, Canadian and American medicine have indicated a very different perspective to that provided by those works written by gynaecologists themselves focusing on the positive advances in surgical technique or the benevolent therapeutic motives of historical predecessors. This scholarship has instead highlighted the imbrication of gynaecological surgeries and reproductive technologies within racialised biopolitics of the modern era, providing an instructive orientation for our own investigations (Olszynsko-Gryn 2014; Moscucci 1993; Frampton 2018). Several American historians have detailed the class and racial hierarchies that informed the work of the mid-nineteenth-century gynaecologist James Marion Sims whose experimentation with novel surgical technique was pursued on black slave and poor Irish immigrant women, without adequate anaesthetic and with a high rate of death (McGregor 1998, 44–65; Cooper Owens 2017, 15–40; Morantz-Sanchez 1999, 93–96; Ojanuga 1993). Diedre Cooper Owens’ work has highlighted how racial inequalities present in gynaecological care in the USA are continuous with the nineteenth-century exploitation of black women as experimental subjects in the early history of the medical specialism (Cooper Owens 2017).

The current race inequality questions in relation to hysterectomy are far-reaching indeed. In the USA today, black women are still more likely than any other US women to receive hysterectomy for fibroid removal, while racial-minority women of all kinds are less likely than white women to receive minimally invasive gynaecological surgical procedures of all kinds (Beavis, Gravitt, and Rositch 2017; Dillaway 2016). Aboriginal women in rural areas of Western Australia are more likely than non-indigenous women to be given hysterectomy for the treatment of mild gynaecological disorders (Ranjit et al. 2017; Spilsbury et al. 2006). In India, hysterectomy is far more commonly performed on rural women compared with urban women; most common in regions with the lowest literacy levels; and is far more often performed on poor women than upper-caste, wealthier and more educated women (Mamidi and Pulla 2013; Sarojini *et al.* 2015; Geetha *et al.* 2019; Desai *et al.* 2019). In Germany, hysterectomy has been found to be concentrated among the lowest socioeconomic bands (Prütz *et al.* 2013). Swiss researchers in the 1990s identified that hysterectomy was higher among the general population than among either women doctors themselves or as doctors’ and lawyers’ wives, and was highest among the least educated women, particularly if they had private health insurance (providing additional financial incentive for clinicians to perform unnecessary surgeries) (Domenighetti and

Casabianca 1997; Domenighetti et al. 1996). One American gynaecologist responded in the *British Medical Journal* of 1997 to growing evidence of class and race inequalities in the practice of hysterectomy by suggesting that ‘performing hysterectomy in low-income women may be easier than educating them’ (Bunker 1997, 603). The most common cause of hysterectomy throughout the twentieth century in the West has been uterine fibroid leiomyoma (benign tumours), and fibroids have been identified as the most common reason for the prescription of hysterectomy in India, Ghana, Tanzania, Finland, Denmark and many other places (Desai et al. 2019; Sarkodie et al. 2016; Takyi 2013; Umezurike, Feyi-Waboso, and Adisa 2008; Michael et al. 2020; Gimbel et al. 2001; Luoto et al. 1992). But fibroids can be treated in other ways, such as with myomectomy (in which only the tumour itself is removed, not the uterus), and fibroids are more common in women of black African descent (more than 50% prevalence), compared with all other populations (Dillaway 2016; Marshall et al. 1997). It seems likely then that race, class and commercial exploitation of socially disadvantaged groups has played an important role in the modern history of hysterectomy in ways scholars in the human sciences are only just beginning to understand.

Hysterectomy has been increasingly challenged since the late 1980s, as a routine procedure for removal of fibroids or for menstrual pain or bleeding disorders, both by medical clinicians favouring more conservational procedures, but also by a large number of sociologists and feminist critics of the medicalisation of women’s health (Strausz 1993; Elson 2003; Elson 2004; Block 2019; Kolip 2000; West 2002; Hufnagel 1988; Coffey Nora and Schweikert 2008). It has become a decreasingly popular surgery in the West since the 1990s (Gimbel et al. 2001; Chen, Choudhry, and Tulandi 2019; Farris et al. 2019; Théobald 2008), but has been used increasingly in Africa, India and central Asia from the 1990s onwards (Mamidi and Pulla 2013; E.J Gibney, C. Mock, and L.E. Visser, 1991; Desai et al. 2019). In recent times, gynaecology researchers have described 90% of hysterectomies as conducted for ‘benign conditions’, referring to non-cancerous fibroid leiomyomas and abnormal bleeding, and many have now criticised their overuse, recommending more complex decision trees to determine which surgeries may be most appropriate on a case-by-case basis (Neis et al. 2016; Corona et al. 2015; Suraneni and Maharana 2017). The recent trend towards minimally invasive gynaecological surgeries is a product of technological advancements, no doubt—such as laparoscopic (keyhole) myomectomy for fibroid removal (the most common condition for which hysterectomy is prescribed)—but in affluent countries it also correlates with both the emergence of the antihysterectomy feminist sociological discourse and with the entry of increasing numbers of women into the discipline of gynaecology from the 1980s onwards. There are racial equality questions relevant for antihysterectomy campaigners as well though. Simply telling women not to have any surgeries, as has been the dominant message of much popular writing on the topic in the USA (Strausz 1993; West 2002; Hufnagel 1988), implicitly privileges white women’s bodies since a higher percentage of black women will develop problematic fibroids than other populations, with some evidence suggesting that these more commonly recur after myomectomy and less often slowdown in growth or shrink after menopause, as they have often been observed to do in white women’s bodies (Learman et al. 2011).

Increased gender diversity among gynaecological clinicians themselves in the late twentieth-century West, has been an important pressure on the medical discipline to develop more patient-centred practices. Moreover, contexts where gynaecologists are

predominantly men have been associated with practices that are less in the interests of patient well-being, such a resort to unmitigated use of hysterectomy to treat a wide variety of benign conditions, and use of methods that result in longer recovery time for patients (Domenighetti et al. 1985; David et al. 2012). Recent data from the American Medical Association indicate that gynaecology is now by far the most feminised field of any medical specialty in the USA (Vassar 2015). From the turn of the twentieth century, a small number of women had entered the profession in several contexts, including the Croatian gynaecologist/obstetrician Eva Haljecka (1869–1947), the French (mother and daughter) gynaecologists Héline Gaboriau (c.1868–1935) and Isabella Gaboriau (c.1896–1972), Jerusha Jhirad (1891–1984), founder of the Bombay Obstetric and Gynaecological Society, and Kanti Giri (born c.1932), a Nepalese gynaecologist trained at Johns Hopkins University and a major advocate of laparoscopic tubal ligation sterilisation in Nepal during the 1970s (Berić 1983; C.N Purandare, Madhuri A. Patel, and Geetha Balsarkar, 2012; Gaboriau 1923; Gaboriau 1919; Olszynsko-Gryn 2014; Ramanna 2019). As the surgery historians Margarite Dupree and Anne Crowther have shown, gynaecology/obstetrics was pivotal in overcoming English resistances to women as surgeons in the late nineteenth century based on the claim that women’s modesty meant a female clinician would be better able to treat them (Dupree and Crowther 2007, 156). Feminisation of the discipline has played a role in the changing practices of gynaecological surgery worldwide. A 2012 German study showed that women gynaecologists were more likely than men to prescribe vaginal hysterectomy (which is more technically demanding but entails shorter recovery time for patients) over the abdominal route (David et al. 2012). Women gynaecologists in the Italian parts of Switzerland in the 1980s were found to perform roughly half the number of hysterectomies of their male colleagues (Domenighetti et al. 1985). Social scientific studies on the practice of hysterectomy in present-day rural India have indicated that most of the male doctors prescribing this radical surgery for gynaecological disorders that are treatable in other ways, do so only by external abdominal sonography of the patients, without cervical smear or internal speculum examination as per the international standard of care, due to cultural values of propriety and pollution which inhibit men from seeing or touching a woman’s genitalia (Prayas, 2013; S Kameswari and P. Vinjamuri, 2010). In India, women doctors are rare outside of the major urban centres and despite constituting more than half of medical school graduates, are nowhere near the majority of gynaecologists, unlike in many Western countries (Bhadra 2011; Rao et al. 2011; Bhan et al. 2020). While there is a lack of direct evidence to show that the decline of the most radical gynaecological procedures everywhere in the West follows closely the increase of women’s participation in the medical specialism, the two trends have been temporally concurrent in many different contexts throughout the period from 1980 to 2020.

Despite a plethora of critiques of, and resistances to, routine radical organ removal, placing women’s lives unnecessarily at high risk in experimental procedures in the pursuit of the advancement of technique and private profit has been a recurring feature of the proliferation of radical gynaecological surgeries throughout their history since the late nineteenth century. Ornella Moscucci’s pivotal work on both the history of nineteenth-century English gynaecology and on the history of cancer treatment has shown that early English surgical removals of women’s reproductive organs played a central role in the development of surgical techniques of general abdominal surgery, attracting experimental enthusiasm as a domain for

the advancement of technical methods that could be applied to other areas of medicine (Moscucci and Clarke 2007; Moscucci 1993). Mitchinson's monograph on the history of Canadian doctors treating women in the nineteenth century showed that hysterectomies were widely practised on women in psychiatric institutions between 1850–1900, despite a 50% mortality rate associated with the surgery in that context (Mitchinson 1991, 255). Frampton's monograph on the English history of ovariectomy showed that the high mortality rate associated with hysterectomies in the last decades of the nineteenth century deterred many London doctors from offering them at all, resulting in an increase in the alternative ovarian removal with its attendant 30% mortality rate (Frampton 2018, 144–145). Research on the French history of menopause has shown that the Paris surgeons first innovating widespread hysterectomies in the late nineteenth century did so most commonly in women in their 40s with benign fibroid tumours (Moore 2022, chapter 10). Some, such as the surgeon Jules Péan (1830–1898), described ambiguous communication with patients which may have implied to these women that the surgeries were necessary to save their lives, even though hysterectomy itself bore a 67% mortality risk in the 1880s (Péan, Jules & Léopold Urdy 1873; Moscucci 1993, 67); on the other hand, fibroid tumours themselves had rarely been observed to kill anyone (hence their classification as 'benign' and were most often discovered postmortem among elderly patients (Moore 2022, chapter 10).

In North American accounts of the second half of the twentieth century, and even recently, gynaecologists have described a perceived need to practise hysterectomy technique and train student doctors in the technique as one of the pressures towards surgeons prescribing higher-risk hysterectomy over lower-risk, less invasive treatments (Strausz 1993; Rudnicki, Trappen, and Kersten 2019; Ladd-Taylor 2014). Rebecca Kluchin notes that complication rates for hysterectomy were known in mid-twentieth-century American medicine to be many times higher than for tubal ligation, but that hysterectomies were nonetheless sometimes still used for sterilisation purely to prevent boredom among surgeons tasked with the eugenic programmes from the 1950s to the 1970s (Kluchin 2009, 107). Even those teleological narratives recounting the history of gynaecological surgery as the triumph of men's science over women's folk medicine and which refer to a progressive refining of modern surgical technique, have nonetheless often also acknowledged that the safer and more technical methods have often not been widely favoured in practice (O'Dowd and Philipp 1994, vii; Litynski 1999). Several recent gynaecology researchers have pointed to a significant deskilling of surgeons in the late twentieth century, in the relative decline of the more technically demanding vaginal hysterectomy with its shorter recovery time for patients, and an increase of the technically simpler, open-cut abdominal-entry methods which leave visible scars, are more painful, require longer convalescence, and are more likely to impact women's core-muscular function, pelvic integrity and bladder control postsurgery (McCloud, Cao, and Spiryda 2015; Panza, Heft, and Zimmerman 2018).

The very development of hysterectomy as the first-line treatment for fibroid removal throughout the twentieth century suggests that deficiencies of technical finesse have been a recurring feature of the history of gynaecological surgery, and that something other than linear pursuit of technical mastery has been a driver of the proliferation of the surgical practice. Successful myomectomies (where the fibroid is removed and the uterus repaired) were first performed and reported in the medical literature of the mid-late nineteenth century and were practised by

many French and German surgeons around 1900 (Auvard 1892; Rose 1887; Brachet 1870, 447–448; Penrose 1901; Régnier 1894, 224–252; McGosh 1902, 455; Bonier 1904; Guillaume 1910). However, myomectomy became displaced as the first-line treatment for fibroids for much of the twentieth-century by hysterectomy, until its recent revival in the face of feminist critiques of hysterectomy and patient demand for organ conservation (Farris et al. 2019).

Financial incentives and the relative simplicity of radical organ-removal surgeries have clearly also played a role. Sally Frampton has shown that in late nineteenth-century London, patients were charged the same amount of money for hysterectomy relative to more complex and conservational procedures, leaving doctors favouring hysterectomy able to generate more income for the same work hours (Frampton 2018, 144). A similar observation about financial incentives for doctors to prescribe hysterectomy has been observed in both recent Andhra Pradesh and in recent Switzerland (Domenighetti and Casabianca 1997; Desai, Sinha, and Mahal 2011; Bhasin, Shukla, and Desai 2020). In both past and present, the substantial contemporary international movements favouring minimally invasive gynaecological treatment have not translated into transforming practices. Hysterectomy appears to have been favoured by gynaecological surgeons in several global contexts because it was/is the simpler and more lucrative surgery to perform, rather than because it was/is in the best interests of women's health.

Hysterectomy has become a point of cultural contention since the late twentieth century precisely because it suggests an entanglement of surgical experimentalism and commercial exploitation, with racial, class and gender prejudices (Dillaway 2016). It is on account of the troubled past and present of the practice known as hysterectomy that some gynaecological researchers now reject the term as inherently misogynist in its evocation of hysteria, proposing its replacement with the newer terms such as 'uterectomy' and 'uterotomy' (Maria, Majerníková, and Rijkers 2018). It may seem intuitive to search for the origins of widespread hysterectomy practices in the nineteenth-century idea of women's hysteria, assuming that the two forms of medicalisation of women were always deeply intertwined. Wendy Mitchinson's work has shown that women psychiatric patients in Canada of the 1890s were often given hysterectomies in the view that this would cure their mental pathologies (Mitchinson 1991). However, European psychiatrists of the same era viewed such practices as dangerous and ill-advised (Monin 1890, 45–46). While ideas about the womb causing mental pathology has sometimes appeared in medical justifications of hysterectomy, most often this was because specific gynaecological conditions, such as cancerous tumours or endometriosis, were thought to entail psychopathological symptoms as well, rather than because the uterus per se was thought to cause madness (Scialom 1902, 53). As both Mark Micale and Sabine Arnaud have shown, hysteria in Europe, from its origins in the eighteenth century, and increasingly throughout the nineteenth century was primarily understood a nervous disease, rather than as a uterine disorder, and was rarely ever treated with hysterectomy (Micale 2008; Arnaud 2015). Hysteria was not viewed as relating literally to uterine function in the late-nineteenth-century French and German contexts where it was most extensively elaborated as a form of nervous disorder or psychopathology treated similarly to other psychiatric and neurological illnesses, and found in men as well (Scull 2011; Julien 2014; Micklem 1996). Hysterectomies in the late nineteenth century, as in the recent West, have been most often performed on women in their 40s and have therefore more closely been associated with menopause than with either hysteria

or sterilisation (Moore 2022). While hysteria and ‘the critical age’ in women were sometimes related in eighteenth-century and early nineteenth-century medicine, by the late-nineteenth century when hysterectomy was becoming common, most menopause scholars argued that this was a time of life when women were less, not more, prone to hysteria (Moore 2018; Briquet 1859, 236–238). Hysteria then is not the dark side of gynaecology throughout its history of performing hysterectomies. On the other hand, hysterectomy and ovariectomy have coincided with the pattern of unnecessary organ-removal surgeries administered, either consciously or unconsciously, in a selective fashion that has disproportionately impacted racial and ethnic minorities, women and girls with disabilities, and lower-caste/lower-class women.

II. HYSTERECTOMY’S ENTANGLEMENTS WITH STERILISATION

Importantly, hysterectomy—the most common gynaecological surgery—produces complete and irreversible sterilisation, something barely touched on in histories either of gynaecology, or of population control. Many historians of reproductive medicine have primarily treated such surgeries in conjunction with the older history of obstetrics from which they emerged and with which they remain partly associated (McGregor 1998; Scully 1980; O’Dowd and Philipp 1994, 44–65; King 2017; Sage-Pranchère 2017). Here, an alternative perspective is considered according to which radical gynaecological surgeries such as hysterectomy and ovariectomy are a predominantly modern biomedical phenomenon which, in contrast to obstetrics, have often pursued antinatalist aims which have helped to spread their use globally through biopolitical population-control measures. Because hysterectomy is used as a treatment for heavy or painful menstruation, endometriosis, uterine fibroids, to prevent maternal mortality from postpartum blood loss, and as a cancer treatment or prophylaxis, such procedures may help to mask sterilisation for eugenic or population-control purposes by referring to these other clinical aims. Consequently, the importance of hysterectomy in the history of population control and modern global biopower has likely been underestimated in existing historical analyses which have tended to identify sterilisation primarily through tubal ligation (Stern 2005; Olszynsko-Gryn 2014; Dowbiggin 2008; Trombley 1988). Nonetheless, several historians have cited specific cases of hysterectomy found in the source corpus of known mass sterilisation programmes in the USA, Central America and Canada in the 1970s–1980s, which disproportionately impacted Native American, Latino, black women, as well as women and girls with disabilities (Lawrence 2000; López 49–69; Rutecki 2011; Ladd-Taylor 2014; Amy and Rowlands 2018; Theobald 2019, 90).

American gynaecologists between the 1950s and 1970s were the most explicit and emphatic about the value of hysterectomy as a method of surgical sterilisation, with some even seeing it as superior to the emerging laparoscopic tubal ligation methods. One of the earliest arguments made of this kind was in 1953 by Walter L Thomas who proposed that women keeping their internal reproductive organs as they aged would be more costly for the state than if they were all made to have total hysterectomies, because this would both provide permanent contraception, and also prevent them from ever getting uterine, ovarian or cervical cancers (Thomas 1953). Charles Montague too extolled the virtues of hysterectomy for sterilisation in 1959, deflecting other gynaecologists’ objections that it was like ‘cracking nuts with a sledgehammer’, by pointing out that ‘extirpation of the

uterus and cervix will prevent the most frequent genital cancer in women’ (Montague 1959, 28). In 1969, the American gynaecologist Ralph C Wright characterised the uterus of a woman who had already borne children as ‘a useless, bleeding, symptom-producing, potential cancer-bearing organ’ and argued that hysterectomy was ‘the only logical approach to surgical sterilisation’, since to sterilise a patient and allow her to keep ‘a potentially lethal organ is incompatible with modern gynaecological concepts’ (Wright 1969, 560–563). Over the 1960s and 1970s, numerous gynaecologists made arguments about the benefits of hysterectomy as a sterilisation method, on the grounds of being a cost-saving cancer prophylaxis (Dees 1961; Nichols 1969; Van Nagell and Roddick 1971; Laufe and Kreutner 1971; Atkinson and Chappell 1972). In 1972, Robert Deane and Arthur Ulene cited a figure of some 500 000 hysterectomies that had occurred in America in the previous year, adding that ‘a sizeable number of these are electively performed for sterilisation’ (Deane and Ulene 1977, 82).

Prior to the spread of laparoscopic procedures after the 1970s, tubal ligation/excision required abdominal incision and so was not less invasive than vaginal hysterectomy but was a more technical operation to perform. Consequently, both hysterectomy and tubal ligation have been used for sterilisation purposes. With the technological development of laparoscopic devices in the mid-twentieth century, tubal ligation finally became a more viable method for mass sterilisation and by the 1980s was described by American gynaecology researchers as the ‘gold standard’ for permanent female contraception (Greenberg 2008). But in several world regions, it was with hysterectomy too, that twentieth-century sterilisation programmes were initiated between 1912 and 1970. In the first decades of the twentieth century, before tubal ligation surgery was common, numerous modern states legalised non-consensual sterilisation, often using hysterectomy to achieve this in women. A bill authorising the surgical sterilisation of ‘feeble-minded persons’ was first introduced in the Michigan legislature of the USA in 1897 (Zenoff 1961, 151). In 1907, Indiana also legalised compulsory sterilisation. The US Supreme Court judgement of *Buck v Bell* in 1927 created a national legal precedent for the forced sterilisation of all kinds of people who were seen as undesirable to breed, to the delight of the American Eugenics Society which called for the sterilisation of 10% of the American population, specifically black and impoverished people. By 1961, an estimated 60 000 people had received sterilisation surgeries, including hysterectomies (Reilly 1991, 59–160). These procedures may have impacted indigenous populations as much as black and poor white populations. Theobald’s monograph *Reproduction on the Reservation* has challenged assumptions that the early US sterilisations did not impact Native Americans disproportionately, showing that in the 1930s, Native peoples were often reclassified as ‘coloured’, obscuring them in the archive as common recipients of sterilisation, including hysterectomy (Theobald 2019, 91–92).

Forced sterilisation was also legalised for women and girls with intellectual disabilities in the Swiss canton of Vaud 1928 and in Denmark in 1929, likewise using a variety of surgical methods, including hysterectomy (Amy and Rowlands 2018, 194–200). Importantly, the US, Swiss and Danish interventions all preceded the genocidal practices of the Nazi regime, posing the question how much inspiration they, as well as numerous other global eugenic movements, gave the German NSDAP (*Nationalsozialistische Deutsche Arbeiterpartei*, or Nazi party) for their own early eugenic initiatives (Adams 1989; Kühl 1994). The American Rockefeller Foundation supported German eugenic

research right up until 1933, including Joseph Mengele's prewar experiments with reproductive sterilisation surgeries, resulting in the forced sterilisation of 400 000 Germans following the 14 July 1933 *Gesetz zur Verhütung erbkranken Nachwuchses* (Law for the Prevention of Hereditary-Diseased Offspring), which targeted people with disabilities of many kinds, with mental or neurological illnesses, as well as Roma and Sinti people, and others who were designated 'asocial'. Hysterectomies occurred here too but more interest focused on tubal techniques that promised faster recovery, leaving sterilised women able to be exploited more quickly as labourers. In the concentration camps of both Auschwitz and Ravensbrück, both Mengele's and Carl Clauberg's gynaecological experiments have been documented, but hysterectomy did not especially feature—the experiments on women to see what kind of organ removals could be tolerated, and with what negative effect, had already occurred in France, Germany and the UK between 1880 and 1940 (Mitscherlich and Mielke 1949; J Sehn, 1958).

Since the 1980s, tubal ligation, and later vaginal hysteroscopic tubal procedures, have generally been favoured over hysterectomy as sterilisation methods, which probably explains why hysterectomy has not received much attention from most historians of population control. However, hysterectomy was still one of several sterilisation methods included in population measures in numerous countries of North America, Eastern Europe, the Indian subcontinent and the French Pacific after World War II (Vergès 2017; López 2008). The Czech communist regime used both tubal ligation, but also hysterectomy and hysterotomy (a high-risk surgery combining hysterectomy with abortion), as methods in the coerced sterilisation of Romani women between 1970 and 1991, either by inducing such women to become sterilised through monetary incentives, or with the use of false claims during labour that the women would die unless they consented to such emergency procedures (European Roma Rights Centre, 2016). Here gynaecologists were instrumental in the drafting of Directive No. 01/1972 of Ministry of Health which legalised the prescription of sterilisation purely on the basis of ethnicity, advancing explicit racial eugenic arguments for the targeting of Roma populations as a threat to the Czech nation (Gwendolyn and Szilvasi 2017). Hysterectomy was still also the method by which the Indian government during the 1970s traded land allotments for women's (and to a lesser extent men's) sterilisation to limit population growth of the poor (Tarlo 2003; Vergès 2017, 176–178). Shortly after this though, the development of laparoscopic tubal ligation transformed the Indian subcontinent sterilisation landscape, resulting in mass procedures, often performed with low hygienic and safety standards, culminating in the deaths of 13 women in a government sterilisation camp in Bilaspur, Chhattisgarh in November 2014 (Olszynsko-Gryn 2014).

Since the 1990s there has been a considerable human rights and international legal response to forced sterilisation which is recognised as a Crime against Humanity in Article 7 g of the Rome Statute of the International Criminal Court (Rome Statute 1998). Nonetheless, covert and ambiguous forms of it remain possible through the use of gynaecological surgeries with purported therapeutic aims, namely hysterectomy and ovariectomy. Sterilisation of people with intellectual disabilities in late-twentieth-century Australia, the UK, South Africa, Denmark and the USA has overwhelmingly focused on women and girls and has often favoured hysterectomy because it is both more certain than tubal ligation, and because it eliminates the perceived mess and discomfort of menstruation which people with disabilities are presumed not to manage (Stansfield et al. 2007; Freckelton

2007; Blackwood 1991; Small 1989; Devandas-Aguilar 2017; Linda and Goldblatt 2020). Between 1950 and 1973, at least 152 abdominal hysterectomies were performed in the USA for the surgical sterilisation of women and girls with intellectual disabilities, some as young as 10 years old (Wheeless and Wheelless 1975). The Johns Hopkins University gynaecologist involved in implementing these procedures, Clifford R Wheelless, was so pleased with the result that he declared hysterectomy the 'procedure of choice for surgical sterilisation of the female retardate', on the grounds that 'over 90% of those charged with the care of these patients were enthusiastic for the benefit achieved' (Wheeless and Wheelless 1975, 872).

Despite both US Federal laws since the 1970s prohibiting all forms of non-consensual sterilisation and specifically prohibiting the sterilisation of minors, as well as international laws since the 1990s (Borrero, Zite, and Creinin 2012), non-consensual hysterectomies have been performed in the USA right up until the time of the writing of this paper (BBC News US & Canada 2020; Knudsen 2006; Donegan 2020). While the incidence of non-consensual sterilisation has certainly declined since the early 2000s, such practices—still using hysterectomy, rather than tubal ligation—have not ceased. A still current practice of medical technological management of children with intellectual disabilities termed 'the Ashley treatment', entails the removal of the uterus, ovaries and breast buds of infant girls, placing them on high-dosage oestrogen therapy to limit growth and prevent the onset of puberty, in the view that it is in the best interest of women with disabilities to remain permanently infantilised as a means to protect them from the risk of unwanted sexual contact or pregnancy, as well as the inconvenience of menstruation (Harnacke 2016; Devadas-Aguilar 2017). In Australia up until recently, the Family Court authorised hysterectomies given to several adolescent girls with autism, severe epilepsy and intellectual disabilities, and while some cases have been rejected by the High Court, as late as 2010, the Brisbane Family Court authorised hysterectomy in an 11-year-old girl with Rett's syndrome (Roy, Roy, and Roy 2012). Meera Roy has also documented several cases in 2010 of hysterectomies given to young women with intellectual disabilities in the UK on the grounds of heavy and painful menstrual periods, which appear to be covert justifications for sterilisation, since the girls in question had previously been referred for this purpose but the applications were denied by the court (Roy 2010).

Tubal ligation and hysterectomy may also be more entwined than is commonly realised, since gynaecological and epidemiological research throughout the 1980s and 1990s found that having previously had tubal ligation increases a woman's later risk of hysterectomy—but why? (Huggins and Sondheimer 1984; Hillis et al. 1998; Kjer and Knudsen 1990). In fact, the first observations about this effect occurred in the USA in the 1950s, where it was one of the reasons why some researchers insisted on hysterectomy as a sterilisation procedure, since so many women who received tubal ligation would end up having hysterectomies anyway (Williams, Jones, and Merrill 1951). Studies conducted in the 1980s suggesting a 'post-tubal ligation syndrome' affecting some women due to disruptions of ovarian nerve and blood supply were criticised in their own time for failure to exclude pre-existing gynaecological conditions, comorbidities and contraceptive pill use in the study cohorts (Cohen 1987). The recurring correlation between tubal ligation and later hysterectomy has continued to baffle gynaecology researchers who dismiss consideration of potential iatrogenic problems caused directly by tubal procedures because several long-term studies have indicated there are no statistically

significant differences in the menstrual disorders of women who have received tubal ligation compared with those that have not (Shobeiri and Atashkhoui 2005; Moradan and Gorbani 2012). But a credible explanation for the persistent increased hysterectomy rate among this group of women is wanting. Meanwhile, other studies indicating postligation symptoms in many women, including increased menstrual bleeding, pelvic pain and menopausal symptoms have continued to appear (Ranganna and Shivalingiah 2014; MacKenzie *et al.* 2010; Longinotti *et al.* 2008; Peterson *et al.* 2000; Spadoto *et al.* 2014; Muntanga, Nikodem, and Daniels 2006), including the ethnographic reports described by Johanna Schoen which have identified widespread perception among patients of iatrogenic symptoms associated with their tubal ligation (Schoen 2008; Prayas, 2013, 29–42). Some researchers have acknowledged that the variability of results in different populations may be a product of different forms of tubal ligation surgeries used, with some being more problematic than others (Mall, Shirk, and Van Voorhis 2002; DeStefano *et al.* 1985). The correlation has been found too in the recent scholarship on India's hysterectomy epidemic. Andhra Pradesh has both India's highest rates of female sterilisation and the highest rates of hysterectomy, while national data indicate sterilised women are actually less likely to receive hysterectomy than non-sterilised women (Desai *et al.* 2019, 74; Prusty, Choithani, and Gupta 2018). Here it seems hysterectomy is not clearly being used as a sterilisation method itself, since many women being prescribed hysterectomies, particularly in Andhra Pradesh, have already been sterilised. Rather, the radical surgery remains still entangled with such practices in a novel private-health-insurance context which incentivises the financial exploitation of socially disadvantaged women.

Clearly many women have indeed chosen hysterectomies, fully informed about the alternatives and risks. But in most of the contexts where their prescription has been high, there has not been any sign of informed consent even being considered as a relevant question. Many rural Indian doctors in recent times have clearly used cancer as a fear-trigger to prompt women into agreeing to emergency hysterectomies, without even diagnosing their specific conditions (Prayas, 2013, 29–42). In gynaecological articles published in American medical journals of the 1950–1980s, there was no mention of how consent for hysterectomy as a sterilisation method could be assured, nor any mention of the percentage lifetime risk of ovarian and uterine cancers for most women, which would seem to be an important piece of information required for an individual to assess the need or value of having internal organs removed on the grounds of cancer prophylaxis. The discourse of state costs and economic benefits in describing the value of hysterectomy has not considered long-term patient well-being or individual needs and interests (Fisher 1986). Nonetheless, a growing body of evidence suggests that there are important risk factors for diseases of ageing such as dementia and stroke, which are elevated by premenopausal hysterectomy (even with ovarian conservation) and which both increase aged-care costs to the state and are an important question for older patient well-being (Gong *et al.* 2022; Shuster *et al.* 2010; Bove *et al.* 2014). Gynaecological surgeons practising premenopausal hysterectomy between 1870 and 2000 could not have been expected to take account of such long-term side effects which were only known to medical research from the early 2000s. But present-day gynaecologists must surely now take into consideration the elevated risks for women's ageing morbidity in the context of rapidly expanding state healthcare costs predicted to follow from the increased life expectancy of populations (Harris and Sharma 2018; WHO 2019; Li, Du

and Hu 2020). They might also consider the question from the perspective of important and diverse elder aspirational cultures of healthy ageing and thriving (Quigley *et al.* 2022; Cameron 2021; Shiraz, Hildon, and Vrijhoef 2020; Lewis 2011; Karasawa *et al.* 2011).

CONCLUSION

Hysterectomy has been a difficult practice to explain as a historical phenomenon because vastly different motives have underpinned it in diverse contexts. In the 1890s, it was embraced as an experimental procedure that could be used to advance surgical technique, to generate higher income for clinicians, and in the view that women who received it may also be treated with the new ovarian extracts about which French, German and Swiss researchers were becoming so excited (Moore *et al.* 2021). From the 1920s onwards throughout the West, it has been commonly used in the sterilisation of women and girls with disabilities and as a routine surgery for older women in the justification of their treatment with pharmaceutical hormone replacement. In the USA after World War II, it has been viewed as a cancer prophylaxis to reduce state health expenditure. In India, since the 1970s, it has been used both as a form of sterilisation of lower-caste and lower-class women, and as a lucrative routine procedure for the treatment of common gynaecological disorders treatable by other means. The common feature of all these contexts is that organs have been removed from women's bodies without concern for their informed consent or for their long-term individual health, with disproportionate impacts falling on the most marginalised groups of society. If the rise of minimally invasive alternatives seen in the affluent West since the 1990s is any indication of the future of gynaecology globally, it seems likely that future clinicians and medical historians will likely take a dim view of the ubiquity and inequality of hysterectomy throughout the long twentieth century.

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