Innovators and instigators: feminist contributions to American abortion technology, 1963–1973

Tanfer Emin Tunc

Background

As historian Susan Klepp has delineated, lay, femalecontrolled abortion technologies have been a part of the American fabric since the colonial era. Such technologies included herbal remedies, bleeding through venesection and leeching, vigorous exercise, bathing and douching. New methods were discovered by trial and error, and transmitted through kinship and friendship networks. However, by the late 19th century, the mainstream medical establishment, represented by the American Medical Association, succeeded in criminalising almost all forms of pregnancy termination. The only abortions that remained legal were those performed for 'therapeutic' reasons. In other words, abortions that physicians had determined were necessary to preserve maternal life. Moreover, therapeutic abortions could only be performed by a physician using the best that medical 'science' had to offer which, at the time, was the surgical technique of dilation and curettage (D&C). Thus, by legally eliminating the possibility of lay abortion, and by channelling abortion into the physician-controlled surgical realm, these practitioners eliminated the possibility that pregnancy termination technologies would be used by, or developed by, anyone but themselves.

While physicians were able to usurp the power that women had over their own bodies by excluding lay healers from the realm of abortion technology, they ultimately did not succeed. Not only did 20th century women participate in the development of new reproductive technologies, but they also fought the legal battles that decriminalised abortion. During the decade prior to the legalisation of abortion (i.e. 1963-1973), feminists in particular served as 'mothers of invention': they were abortion innovators, and instigators, who rejected social and political attempts to stifle their ideas, ingenuity and commitment to other women. Three of these feminist networks - the Society for Humane Abortions, Jane and Carol Downer's branch of the women's health movement - were particularly significant because they successfully recuperated the cultural values of their colonial foremothers. Moreover, they reclaimed abortion technologies from the control of male physicians, and used them to resist, challenge and subvert the American medical and legal systems' domination of women's health care, reproduction and sexuality.

Society for Humane Abortions: the beginning of feminist political and technological dissent

Most historians cite the late 1960s as the period during which the feminist movement became involved with abortion and reproductive rights. While women certainly became more visible during the late 1960s, feminist

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Department of American Culture and Literature, Hacettepe University, Ankara, Turkey

Tanfer Emin Tunc, PhD, Assistant Professor

Correspondence to: Dr Tanfer Emin Tunc, Department of American Culture and Literature, Hacettepe University, Ankara, Turkey. E-mail: tanfer@hacettepe.edu.tr

activism, innovation and instigation in this realm actually began in California during the early 1960s, and were born out of the anger of three women: Patricia Maginnis, Rowena Gurner and Lana Phelan. This "army of three" began the rebellion against male control of women's bodies and were the first to critique the notion that technology is a "never-ending trail of progress". They perceived so-called innovations in medical technology not as 'advances' but more often as excuses to poke, prod and oppress the female body.²

Maginnis, Gurner and Phelan particularly resented male physicians, who they believed served as proxies for patriarchal authority. While this was a radical idea, their disdain for the medical profession was well founded. All three had personally experienced the horrors of illegal abortion, and were sick and tired of the politics of the therapeutic abortion system, which continued to subjugate women to the scrutiny of strangers. Maginnis, a laboratory technician who was familiar with the inner workings of the medical and legal professions, disapproved of "abortion restrictions which [were] set ... by all-male legislative bodies after testimony by all-male panels of clergymen, lawyers and doctors". She was especially troubled by the idea that the gynaecologist "is the god, king [and that women] do what he tells them, which is what he wants them to do, because every man wants his women to be subservient to him". According to Maginnis, women deserved first-class abortion care, without the power and gender politics of the medical and legal professions. In her opinion, the D&C, and the therapeutic abortion system, were not providing this service.

With the support of local women, in 1963 Maginnis, Gurner and Phelan formed the Society for Humane Abortions (SHA). During its first year of operation, the SHA failed to make any progress in accomplishing its goals of decriminalising abortion and educating women about pregnancy termination technologies. This changed in 1964 when the New York-based Association for the Study of Abortion (ASA) was established. The ASA was "resolutely a scholarly organization, its letterhead heavy with MDs, PhDs and Esqs". It was not concerned with self-induced abortions or "politicians sticking their noses up women's skirts", and Maginnis thought that it was about time someone was.⁴ She and her co-founders decided that immediate political action was necessary and took their message to the streets.

Maginnis and Gurner began distributing leaflets to women on San Francisco street corners, informing them that if they were pregnant they could go to Mexico, where they would find physician-abortionists who spoke English, used anaesthesia and could handle police suspicion. The leaflets also offered advice on negotiating price, managing intimidating taxi drivers and ensuring antiseptic conditions: "Tell the specialist that you want to see him scrub his own hands and arms with Phisohex ... If the specialist carelessly rests his gloved hand on anything ... his hand is no longer sterile. Tell him to re-scrub." However, Maginnis soon realised that this plan would not be feasible for working-class women who could not afford the trip to Mexico, and could not leave their communities without arousing suspicion. Maginnis also grew tired of corrupt Mexican physicians who, like their American counterparts,

were exploiting women's bodies for their own personal gain. She, like other feminists who would follow, began searching the medical literature for an answer. There she encountered the digital, or finger, method, which was originally used by midwives. While the digital method was not a technique that guaranteed pregnancy termination, it was the best technological and political alternative that Maginnis could offer.^{2,4}

Despite the risk of being arrested, Maginnis and Phelan began teaching "An Accelerated Course on Abortion" in 1966. This class, which was on the digital method, was usually held at the SHA's headquarters in San Francisco or Los Angeles. As one member of the SHA recalled years later: "We started a series of lectures entitled 'Do-It-Yourself Abortion Lectures'. Of course we were very careful. We went through the material with doctors and attorneys to make sure that we didn't hurt anyone ... It was very, very illegal at that time. Even giving information [about abortion] was a felony".4,5 The 8-hour course, which was usually spread over four nights, began with a brief discussion of female reproduction, followed by an explanation of sterile technique and the abortion methods that were available at the time: the D&C, which Maginnis rejected because of its association with male physicians, surgery and the hospital; vacuum aspiration, which she highly recommended, even though she was aware of the fact that most American physicians had never even heard of the technique, and that it was impossible for American women to receive one (unless they went to Europe, or found one of the few physicians using the apparatus in the USA); the hysterotomy (which resembled a Caesarean section and was used for late-term pregnancy termination), which she rejected for the same exact reasons as the D&C; and intra-amniotic saline injection, which by the mid-1960s was well on its way to replacing the hysterotomy for mid-pregnancy abortions.^{4,6}

The second part of the course was a detailed description of the "digital method for self-induced abortion", which Maginnis recommended only for women who had previously given birth vaginally, and not through Caesarean section. As Maginnis explained, this technique began with the creation of a sterile environment. The woman desiring the abortion would first cleanse the surrounding area, and then herself by removing her clothing, placing "her hair into a hairnet, [clipping her] pubic hair and ... nails, and [washing] all areas with Lysol and/or Phisohex". In order to reach the cervix, she would "squat" on the floor, and feel her way through the vaginal canal. Once this was accomplished, she would insert a finger into the cervix, which, "if the woman had previously given birth to a child [vaginally], was soft enough to allow the insertion of a [digit]". The opening to the uterus was then enlarged by inserting a second and third finger, and kept dilated for as long as possible. Theoretically, after performing this technique "twice or more daily", for up to 6 weeks, the woman would abort.^{2,6}

The third part of the course dealt with the medical and legal ramifications of the digital method. Maginnis encouraged her students to consult a hospital once they started to abort, and suggested they tell authorities they were miscarrying. For added impact, she even advocated using raw meat to simulate blood and fetal parts. Another option was for the women to treat themselves using penicillin or any other antibiotic they could find. Maginnis and Gurner were so passionate about their work that they actually wanted to be arrested so they could gain publicity and mount a serious subversive political campaign to decriminalise abortion. "Once they realized the police's reluctance to arrest them due to a lack of physical evidence,

they began to create evidence in the form of abortion kits which cost them \$2.00 each." According to Maginnis:

"The kits were attractive and mysterious, containing, in a plastic bag, Lysol, Phisohex, an orange stick, an emery board, nail clippers, a hairnet, scissors, a thermometer, and instructions on the digital method. They displayed these kits in a prominent location during a San Mateo, California meeting ... [when] nothing happened, they began to become discouraged and collected the [expensive] kits from the women. [However], just as the meeting was about to finish, two police officers entered the room and arrested them."²

Although the legal case that developed after their 1968 arrest was not decided until after Roe v Wade (1973), Maginnis, Gurner and Phelan succeeded in having the California State anti-abortion laws declared unconstitutional in 1969. "Their leafleting, abortion teach-ins and petitions accomplished something both subtle and profound: they made the 'unspeakable' speakable, raised [political and technological] consciousness, and cleared the way for public discourse on abortion [laws and] techniques", such as vacuum aspiration and prostaglandin instillation, which became a popular second-trimester pregnancy termination technique in the 1970s.⁵ While they were not the first women to insert irritants into the uterus with the hope of inducing a miscarriage, "they were the first who, sufficiently inflamed by hatred and resentment of the legal and medical systems, and unencumbered by timidity or moral ambiguity, came forth and [discussed] their experiences in lectures halls throughout the country". Maginnis knew that what she was doing was dangerous but saw no other alternative: the medical and legal professions had robbed women of the technological control that had been theirs for centuries. According to Maginnis, the most 'immoral' aspect of her fight was the anti-abortion legislation that led some women to use the digital method as a last resort.⁴

The story of *Jane*: the legendary underground feminist abortion service

Meanwhile, halfway across the country, another group of women was organising itself in order to reclaim their bodies and the abortion technologies that accompanied them. "If you dialled 643-3844 in Chicago, you would hear: 'This is *Jane* from women's liberation; please leave your name and phone number and someone will call you back'. From 1969 to 1973, one '*Jane*' or another returned the calls of almost 11 000 women", providing a medical and political alternative to the embarrassing process of therapeutic abortion, and the world of criminal abortion, which, like its mainstream counterpart, was controlled by men.^{7–9}

During the first 18 months of Jane, the women in the service primarily provided abortion counselling and referrals. Gradually, the women began to assist in the preabortion procedure itself: "We learned how to give shots, take blood pressure, take medical histories, and read Pap smears for cancer". The role of the women in Jane changed dramatically when they discovered that the so-called "male" physician they had hired to perform the abortions was not a licensed doctor, but a lay practitioner. Feeling duped by men and the medical establishment once again, they decided to take the abortion technologies they had observed into their own hands. As one *Jane* member stated: "If it's necessary, you can take the tools of the world in your own hands. All that crap about how you have to be an expert to do anything ... is just a ruse to make you feel incompetent in your own life". 10

The women at Jane realised that "medicalization is a top-down approach that ... [displaces] paramedical personnel and traditional health practitioners such as midwives; denigrates women's knowledge about their own bodies, their own lives, and their own needs; and [denies] the reality of women's experience". 11 No longer comfortable with being accomplices in this vicious cycle, they learned how to perform early abortions using the D&C and the paracervical block, Xylocaine®. For later pregnancies, they either employed Leunbach's paste (an abortifacient consisting of olive oil, castor oil, cocoa butter, vegetable oil, potassium hydroxide, iodine, thymol, distilled water and tincture of benzoin or myrrh), ruptured the amniotic sac, or detached the umbilical cord to 'induce labour' (midwives had also used the latter two techniques to abort unwanted fetuses or expedite difficult deliveries). 10 When one of the Jane women mastered these abortion techniques she passed her knowledge onto other

The members of Jane were thus feminist anarchists. They challenged the medical profession both politically and professionally by proving that lay, female, skilled paramedical personnel could successfully perform abortions. They even called themselves paramedics in an effort to destroy the hierarchy and elitism of the medical establishment. In an atmosphere of mutual respect and egalitarianism, which eliminated the need for regulation by "paternalistic experts", these laywomen were able to circumvent the traditional authoritarian model of medical service and assume responsibility for their own health care.11 "We performed abortions on pregnant eleven-yearolds, and on pregnant fifty-year-olds. We learned [how] to do a D&C ... [and] were learning other skills: how to deal with doctors and hospitals, how to talk to the police, how to buy drugs and instruments" and, of course, how to secretly dispose of fetal remains.¹⁰

Despite their disdain for the medical profession, the women of Jane recognised the power of medical technology, and took the tools of mainstream surgical abortion (curettes, forceps and dilators) into their own hands to subversively demystify medical practice. However, this social and political agency also exposed their vulnerability. While the D&C was not very complicated as far as surgical procedures went, as with any surgery there were always risks. Unlike the medical professionals working within the therapeutic abortion system, the women of Jane were working within the twilight world of criminal abortion and operating without any legal or social safety nets: "No one had given us permission. In the event of a serious problem, we knew there would be no institution to protect us". As Jane became aware of the medical dangers of the D&C, which included uterine perforation, infection, hemorrhage and sterility, their personal and political dissent against 'professional' abortion merged with their burgeoning technological dissent against mainstream abortion procedures. They, like the members of the SHA, would eventually advocate a shift in abortion techniques – away from the D&C and the hysterotomy, and towards vacuum aspiration, saline amniocentesis and prostaglandin instillation. 9

Carol Downer, Lorraine Rothman and the controversy over menstrual extraction

Back in California, Carol Downer also decided that the time was right to reclaim the reproductive technologies that had been 'hijacked' by the male medical establishment. Troubled by the National Organization for Women's (NOW) "rhetoric without action", in 1970 Downer decided

a more radical approach was necessary, and took matters into her own hands. ¹² Her search to "learn what doctors know" about reproductive technologies led her to Harvey Karman's abortion clinic in Santa Monica, California. Karman, who was a lay abortionist with an unsavoury past, was undeniably an abortion innovator: he was, after all, the creator of the 'Karman cannula', the thin, flexible, plastic tube that was (and still is) an indispensable part of the vacuum suction procedure used to terminate first-trimester pregnancies.

At Karman's clinic, Downer witnessed his atraumatic suction abortion technique, which made use of his famous cannula, and did not require any cervical dilation or anaesthesia. This technique also relied upon a handoperated piston syringe, which he used to aspirate the uterine contents, up to 8 weeks after conception. 12 Downer was astonished that without a medical degree and hospital facilities, Karman and his simple and cheap technologies were resisting the medical profession's power and control over abortion. She reasoned that: "just as electrical-pump aspirators [were bringing] abortion out of [hospital] operating rooms and into clinics and doctors' offices ... [hand-powered] suction aspirators could also bring abortion out of the conventional medical system and into the community of laywomen". It was at that moment that she realised "that the solution was in our own hands: look, we can control our own bodies. Why are we [putting] coat hangers in there? Why are we not just doing it?"4

On 7 April 1970, Downer invited about 30 women to her first "Self-Help Clinic" at Everywoman's Bookstore in Los Angeles. Their mission: to take control of their reproductive lives by conducting cervical self-examinations without the intervention of male authority figures. 4,13 During the consciousness-raising session that followed, Downer displayed the cannula and large plastic syringe that she had obtained from Karman's clinic. The device caught the attention of Lorraine Rothman, a Southern California schoolteacher with four children of her own. Rothman immediately understood the technological – and political – power behind the idea of women performing their own abortions. However, she believed Karman's instrument had major weaknesses:

"There was no mechanism to prevent air from being [fatally] pumped back into the uterus ... [Also], the uterine contents passed directly through the cannula into the syringe. If the syringe [became] full, the cannula would have to be removed, so that the syringe could be emptied. This was clumsy to handle and caused additional discomfort [to] women." 2,12

Rothman knew that with Downer's support, she could improve Karman's instrument and accomplish their mutual goal of providing women with a political and technological alternative to mainstream abortion techniques. Rothman took the apparatus home, and began reading obstetrics and gynaecology texts at local libraries. Her search led her to English translations of Chinese medical journals, where she found articles on a hand-powered apparatus called the "vacuum bottle". Rothman also discovered that Karman's cannula could either be attached to a large piston syringe or a portable foot pump.

Rothman then "collected pieces from local shops – a Mason jar from the grocery store, plastic tubing from the tropical fish store, a one-way air valve from an industrial supply house – and put them all together on her kitchen table". After a week of experimentation, Rothman emerged with the "Del-Em", an apparatus that she believed was safer than Karman's syringe because its extra valve and

tube reduced the chance of introducing fatal air bubbles into the uterus. Moreover, it also included a jar that would allow its users to collect *all* the uterine contents without worry.⁴ In Rothman's opinion, the Del-Em had the added advantages of simplicity and affordability. The apparatus was so easily constructed that any woman, regardless of her global location, could build one in the comfort of her own home, and reconfigure the design to suit her own needs.^{2,4,12}

The Del-Em Apparatus¹⁷

Rothman knew that in order to protect her apparatus from technological competitors (Karman included) she would need to apply for a US patent. In 1971, she filed an application with the US Patent and Trademark Office for her device (Figure 1), which she called the "Rothman Method for Withdrawing Menstrual Fluid" (Rothman received patent #3,828,781 on 13 April 1974).⁴ Because interfering with the contents of the uterus in 1971, when abortion was still illegal in many parts of the USA, was extremely problematic, Rothman quite cunningly avoided any association with abortion in her patent application. Rather, she defined "menstrual extraction" as the main function of the Del-Em:

"A method and apparatus whereby substantially all of the menstrual fluid incident to a normal monthly 'period' may be removed in a small fraction of an hour. A simple plastic syringe is employed in combination with a valve to create a suction pump incapable of injecting air into the uterus ... menstrual extraction ... is performed at a time when the normal monthly period starts, or is estimated to start."

According to Downer and Rothman, this technology was particularly effective at "eliminating the general nuisance of menstrual flow, and relieving menstrual pain, including symptoms [such] as cramps and lower backache". While they did state that the Del-Em could be used to reduce the need for abortion, they never publicly admitted that it was an abortion apparatus. Such an admission was both legally and politically unnecessary: most of the women practising menstrual extraction were doing so pre-emptively - that is, before the start of their menstrual period and before confirming whether or not they were pregnant - so they technically could not be prosecuted for performing illegal abortions (although abortion could be a by-product of the procedure, since the Del-Em's tubing was large enough to accommodate the products of conception). Moreover, because Downer and Rothman had grounded their apparatus in the theory and rhetoric of feminist self-help, they were able to avoid legal controversy by maintaining that they were not breaking any laws, but were merely following in the footsteps of their colonial foremothers who sought to "regulate their menses", in this case by extracting it up to 8 weeks after the expected start of menstruation. 18,19

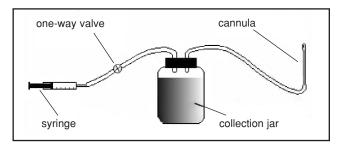


Figure 1 Diagrammatic representation of the Del-Em apparatus¹⁷

Menstrual extraction and the medical profession

Unlike Jane, which was working underground, and the SHA, which, unfortunately, became crippled by legal battles, Downer and Rothman posed a long-term threat to the medical profession because their Del-Em apparatus was in direct competition with physician-controlled vacuum aspiration. Thus, it is not surprising that American physicians reacted almost immediately to the ideological and technological challenge posed by manual vacuum extraction. A strong contingency of doctors, including Keith Russell, former president of the American College of Obstetricians and Gynecologists, maintained (and continue to maintain to the present day) that menstrual extraction performed by laywomen was a dangerous 'do-it-yourself' abortion technique that 'misused' instruments that were traditionally part of the physician's domain: "This do-ityourself abortion can lead to real harm ... you [can't] insert instruments without real danger of infection".20

One gynaecologist, a "Dr Simpson", asserted that despite its alleged simplicity, menstrual extraction involved the same medical risks as the D&C: infection, uterine tearing, incomplete abortion and death. The gynaecologist not only objected to menstrual extraction for technological reasons – he admitted that he was an ardent supporter of electrical vacuum aspiration – but also rejected the technique because it did not follow standard medical procedure: it was usually performed prior to a positive pregnancy test and required extensive follow-up. As he noted: "It's much easier to prove pregnancy, and then abort [with motorised aspiration]; otherwise in a [menstrual extraction] you have to keep rechecking afterwards to make sure you have gotten everything out".21

A great deal of the disdain for menstrual extraction stemmed from the fact that it diffused the medical profession's authority over early abortion, and channelled the procedure away from the realm of regulated, physicianperformed pregnancy termination. While it is true that self-help advocates were essentially practising medicine without a license (Downer was arrested on the charge in 1972), their intent was to provide women with alternatives. 19,22 Many physicians, however, did not see menstrual extraction as another option, but rather as a challenge to their power. Some were particularly uncomfortable with the technique because it provided nonmedical, lay personnel with the ability to provide abortions - a right that was reserved only for physicians. They argued that while "first trimester abortion is a technically simple procedure ... it is a mistake not to have surgically qualified people [terminating pregnancies]".21

Other physicians, such as Evalyn Gendel, were more pragmatic. She believed that the medical profession needed to examine the criticisms raised by the women's health movement because they involved patient well-being and the authority of physicians.²³ While she did not approve of menstrual extraction, Dr Gendel's statements illustrate the precarious position into which the women's health movement placed many physicians: they did not want to support the feminist self-help movement outright because of its criticisms of their profession but, conversely, they agreed with many of the women's grievances. Dr Jane Hodgson was also torn between her personal and professional beliefs. She agreed that menstrual extraction could revolutionise women's lives by eliminating menstruation. However, Hodgson did not endorse the technique because she suspected it would not be used to rid women of their periods pre-emptively, but rather to terminate both suspected, and confirmed, early pregnancies. As a physician who helped develop early, and accurate, patient-administered home pregnancy testing, she could have resolved the issue of pre-emptive menstrual extraction and early abortion by critiquing the medical profession's vague technologies. [During the early 1970s, physicians could not determine if a woman was pregnant until 4 weeks after conception.] Instead, Hodgson chose to criticise the legal system. She argued that if abortion were legal, menstrual extraction would be a non-issue. In Hodgson's opinion, the best solution was to legalise, and define, abortion properly; this would eliminate a great deal of the ambiguity surrounding menstrual extraction.²⁴

Conclusions

When Roe v Wade legalised abortion in the USA in 1973, menstrual extraction - as well as other abortion technologies espoused by feminists such as the digital technique – suddenly became inconsequential. 18,25 As Jane Hodgson observed in 1974: "Many of the advantages claimed for [menstrual extraction] are now being questioned, even by the original proponents of the technique". Hodgson questioned the use of paramedical professionals as 'dubious', and believed that the complications involved with manual techniques, such as incomplete abortion and infection, did not outweigh their benefits. She declared the procedures "poor care", called for their elimination from the medical profession, and encouraged a return to the actual diagnosis of pregnancy, and the use of motorised vacuum suction by physicians and licensed nurse practitioners (which is the current pregnancy termination model in the USA).²⁶ Nevertheless, by building abortion delivery services like the SHA, Jane and Downer's branch of the women's health movement, feminists were able to challenge, resist and subvert the elitist, hierarchical and profit-oriented medical system that had criminalised abortion and invaded female bodies with surgical instruments. They established alternative institutions to meet women's health care needs and, in the process, developed empowering abortion technologies that allowed them to take their bodies back into their own hands.

During the 1990s, almost 20 years after it was first devised, the Del-Em apparatus experienced a renaissance in the USA, especially among poor, rural women without access to health care, and feminists who were growing weary of the increasing medical interference with their bodies which, they erroneously believed, would end with the Roe v Wade decision. Menstrual extraction made a surprising appearance on the NOW 1992 annual conference programme, and also attracted attention at the Black Women's Health Project's Wellness Conference. Sensing the growing interest in the reproductive technology, NOW began offering workshops on menstrual extraction and the Del-Em. It was not long before Downer re-emerged on the abortion scene, advocating, once again, the deprofessionalisation of pregnancy termination. She saw use of the drug mifepristone for the medical termination of pregnancy as a sign that the time was right to re-ignite the women's health movement, and she did: with her help, defunct self-help groups of the 1960s and 1970s, such as the Federation of Feminist Women's Health Centers, began making a comeback. Downer also coauthored A Woman's Book of Choices: Abortion, Menstrual Extraction, and RU-486, which provided women with a clear and honest discussion of abortion, and practical information about how they could safely terminate their pregnancies.7,12,27

Some American physicians, such as Michael Policar, former Vice-President of Medical Affairs for the Planned Parenthood Federation of America, responded by referring to the renaissance of the Del-Em as "a regression to the bad old days when those who performed abortions were not always doctors". The social and political climate of the 1990s, however, was drastically different than that of the 1970s, and these sorts of arguments against the procedure would no longer work. Dr Cheryl Gibson, former Associate Medical Director of Planned Parenthood of Northern New England, admitted that: "performing safe abortions was mostly 'a matter of getting good at a technical skill'. If the women doing menstrual extractions had adequate training and 'a system ... for managing complications', she 'didn't have a problem with it".27 Texas physician Jerry Crenin recognised that technological developments since the 1970s, such as the advent of accurate home pregnancy kits, eliminated the need for expensive tests in the clinical setting. Women now had the technology to detect pregnancy very soon after implantation, and as a result the demand for safe, early abortion skyrocketed. Crenin believed that menstrual extraction was a feasible solution to this clinical phenomenon, and developed a patient protocol that could be used as soon as a positive test result was obtained.²⁸

To many women, arguments from physicians and other experts about 'professionalism' and the legal 'muddiness' of menstrual extraction are irrelevant in an age when sexuality, pregnancy and abortion are no longer shrouded in mystery, but are being discussed openly in junior high schools along with epidemics such as AIDS and cancer. As a result, menstrual extraction has once again become a technological and political form of dissent, especially in the USA, where the abortion debate is still focused on the role of paramedical health care providers, the male control of female bodies, the limitations of medical abortion, and the criminalisation of late pregnancy termination. While these issues will undoubtedly continue to be debated for years to come, the contributions of these feminist pioneers have taught us one important lesson: namely that women are not only shaped by reproductive technologies, but that they also have the power to shape them.

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JOURNAL REVIEW

Contraception for the older woman: an update. Bhathena RK, Guillebaud J. Climacteric 2006; 9: 264–276

So much has been written about contraception for the young adolescent that the implications of an unplanned pregnancy for the older woman can easily be overlooked.

This comprehensive update pulls together peer-reviewed, randomised, controlled trials and observational studies from the last 6 years. It also refers to guidelines from the Royal College of Obstetricians and Gynaecologists, the Clinical Effectiveness Unit of the Faculty of Family Planning and Reproductive Health Care, the Committee on Safety of Medicines, the World Health Organization and the International Planned Parenthood Federation.

It gives evidence-based advice on all methods of contraception (including emergency contraception) and looks at their suitability for this age group, stressing the non-contraceptive benefits that such methods may possess including reduction of menorrhagia with the intrauterine system, and reduction in vasomotor symptoms and increase in bone mineral density with the combined oral contraceptive - all useful advantages for the older woman.

Although in the UK female sterilisation is the most commonly used method of contraception in women aged over 40 years, this paper suggests that the need for this procedure should be reviewed. Long-acting reversible methods are equally effective and offer additional benefits, particularly in view of the increasing number of failed relationships and subsequent requests for reversal of sterilisation.

The paper also considers the questions of when contraception can be discontinued and the value of testing follicle stimulating hormone levels when using different forms of hormonal contraception.

This well-referenced update provides clinicians with a relevant source of the latest information on this topic.

Reviewed by Gilly Andrews, RGN Clinical Nurse Specialist in Reproductive and Sexual Health, King's College Hospital, London and Menopause Nurse Specialist, The Lister Hospital, London, UK

Association of estrogen and progestin potency of oral contraceptives with ovarian carcinoma risk. Luie G, Thompson P, McDuffie KE, Carney ME, Terada KY, Goodman MT. Obstet Gynecol 2007; 109: 597-607

It is widely accepted that use of the combined oral contraceptive pill (COCP) reduces the risk of epithelial ovarian carcinoma. However, during the last 30 years there have been significant changes in the oestrogen and progestogen content of the COCP, with the aim of decreasing adverse effects. This population-based casecontrol study examined the effect of varying oestrogen and progestogen potencies on ovarian carcinoma risk.

The study identified 745 women who had a histological diagnosis of primary epithelial ovarian carcinoma. A total of 943 controls were randomly selected from annual household survey data and a frequency-matching approach used to ensure comparability to cases. Each participant was interviewed to sociodemographic record information, menstrual, reproductive and gynaecological histories, and exogenous hormone use. Photograph albums were used to aid identification of COCP preparations. Women identified as having exclusively used the COCP were divided into six categories: (i) unknown preparation, (ii) high oestrogen and high progestogen, (iii) high oestrogen and low progestogen, (iv) low oestrogen and high progestogen, (v) low oestrogen and low progestogen and (vi) various potency OCP users. Oestrogen levels greater than 0.035 mg ethinylestradiol were defined as high oestrogen and less than 0.035 mg as low oestrogen potency. Progestogens were expressed in milligrams of norgestrel equivalent. Those less than 0.3 mg norgestrel were classified as low potency. Participants using parenteral, sequential or progestogen-only contraceptives were excluded. Odds ratios (ORs) were calculated for the association of these OCP categories with ovarian carcinoma risk. Adjustments were made for an extensive list of variables including age, ethnicity, family history of ovarian cancer, gravidity, age at menopause and duration of COCP use.

Use of any COCP was associated with a

50% reduction in epithelial ovarian carcinoma risk. Reduced risk was observed in all categories of COCP by potency when compared with participants who never used hormonal contraception, with ORs of 0.62, 0.55, 0.45, 0.19 and 0.26 for categories (ii) to (vi), respectively. Although the odds of ovarian cancer were lower in users of low potency COCPs than in users of high potency COCPs, this difference was not statistically significant. The study then went on to analyse women exclusively using COCPs containing a single progestogen, norethindrone, with no interindividual variation in dose. They found a significant decreased risk of developing ovarian carcinoma in users of low dose (0.5 mg or lower) norethindrone compared to women taking high-dose preparations.

The authors concluded that COCPs with low oestrogen and progestogen potency provided significant reduction in epithelial ovarian carcinoma risk. However, actual numbers of participants using low-dose preparations were small (3 cases and 12 controls). The authors suggest that the protective effect may be due to ovarian suppression, which occurs regardless of the potency of the COCP. They suggest the improved protection with low potency preparations may be due to increased compliance. Limitations of the study include reliance of patient recall for preparations of COCP. This resulted in 347 women being classed as 'unknown OCP' users, casting doubt on the reliability of recall in the other groups. In addition, oestrogenic and progestogenic components of the COCP have unique pharmacological features and are not completely comparable. Nonetheless, this study does suggest that low potency COCPs are of equal efficacy as high potency preparations at reducing epithelial ovarian carcinoma. Future studies with larger sample groups are needed to confirm the association and aid risk-benefit analysis for individual women.

Reviewed by **Jackie Maybin**, BSc, MBChB ST3 in Obstetrics and Gynaecology, Simpson Centre for Reproductive Health, Royal Infirmary of Edinburgh, Edinburgh, UK

READERS' CONTRIBUTIONS INVITED ON 'A BETTER WAY OF WORKING'

Continuing in this issue (see article on page 193) is the feature entitled 'A Better Way of Working', the purpose of which is to disseminate service delivery suggestions likely to be of interest and relevance to the Journal's readership.

Readers are invited to submit suggestions based on their own personal experience for consideration by the Journal Editor. Contributions should not exceed 250-500 words and should be written in a standardised format responding to the following four questions (or similar): Why was change needed? How did you go about implementing change? What advice would you give to others who might be considering a similar course of action? How did you show that the change had occurred?

All contributions should be submitted via the Journal's online submission system at http://jfprhc.allentrack.net.