

## The Review

# Can sex during pregnancy cause a miscarriage?

A concise history of not knowing

What do we tell pregnant women who want to know whether sex could cause them to miscarry? How do we counsel women who wonder whether having sex might have caused their miscarriage?

Sexual intercourse is acknowledged to be one (neither necessary nor sufficient) cause of pregnancy, but can coitus cause pregnancy loss? Our professional response has been prudish, paternalistic, and fearful of women's sexuality, but it has never provided a satisfactory answer.

### EXPLODING MEDICAL OPINIONS

In 1980, authors of the 13th edition of the seminal *Gynaecology by Ten Teachers* textbook were certain: 'coitus' was listed among the causes of early pregnancy loss ('spontaneous abortion' as it was then termed).<sup>1</sup> In the management of 'threatened abortion', they asserted that 'intercourse is forbidden'. Similarly for 'habitual abortion': 'coitus is forbidden'. A decade later, in 1990, the 15th edition of that same text (its team of 10 contributing teachers slightly altered, but still exclusively male) demonstrated a partial retreat from its earlier hardline view on sex in pregnancy:

*'... coitus has no effect in a normal pregnancy, but it is unwise in the case of a woman with a history of abortion in a previous pregnancy.'*

The recommended management for threatened abortion reiterated previous advice regarding the forbiddance of intercourse. For 'recurrent abortion' it was professed that 'in the absence of specific treatment, good results can be obtained by rest, avoidance of intercourse, and encouragement by the doctor'. Assertion of the physician's authority is a subtext. Today's 19th edition of the *Ten Teachers* textbook contains no mention of sex being 'forbidden' (or of the less obviously authoritarian 'avoidance of intercourse') in the context of early pregnancy loss. There is, indeed, no mention of sexual activity during pregnancy at all.

The retreating, then deleting, of medical judgements on the subject of sexual activity and pregnancy loss is evident in journal articles also. In 1991, the *BMJ* published a clinical review of 'vaginal bleeding in early pregnancy' which advised that 'avoidance of

sexual intercourse is probably sensible as it might act as a local stimulus'.<sup>2</sup> The two review articles addressing this same subject published in the *BMJ* within the past decade make no reference to sexual activity.<sup>3,4</sup>

Medical opinion and guidance on the subject has been quietly erased. Yet the question of whether sex causes miscarriage remains one that women (and their partners) want answered.

### MATERNAL CONCERNS AND INFORMATION SOURCES

'Will having sex during pregnancy harm my baby?' asks the NHS Choices website. 'You may be advised not to have sex at certain stages of pregnancy if you have a history of miscarriage.' The website suggests 'you should speak to your doctor or midwife ...'.<sup>5</sup>

WikiAnswers, another popular provider of information on the internet, asks: 'does sexual intercourse increase the risk of a miscarriage?'<sup>6</sup> It too defers emphatically to the doctor's opinion: 'some women with high risk pregnancies may receive advice from their doctor to avoid sex for part of their pregnancy ... You should always follow your doctor's advice, as he best knows your situation. The bottom line is that you should talk to your doctor about this ...'.

About.com features a page titled 'can sex during pregnancy cause a miscarriage?'<sup>7</sup> The trend of advising discussion with a doctor continues, combined with a disturbing misuse of medical literature:

*'Although research is sparse on first trimester miscarriages, numerous studies have found no association between sexual activity and preterm birth ... When in doubt, however, ask your doctor if you are concerned.'*

Clearly the extrapolation of evidence is unwarranted: a lack of association between sexual activity and pre-term birth is not at all the same as a lack of association between sexual activity and early pregnancy loss.

The above-cited websites do not represent medical knowledge or passive knowledge provision; they are popular lay information sources responding to maternal concerns. The misappropriation of research findings reflects an inadequate availability of alternative reliable and relevant resources.

### ABSENT RESEARCH KNOWLEDGE

Searching PubMed, the online database of biomedical literature, using combinations of terms used to describe early pregnancy loss ('miscarriage', 'spontaneous abortion') and sexual intercourse ('coitus', 'sex', 'intercourse', 'sexual intercourse', 'sexual activity') finds no studies of the effect of sexual intercourse on early pregnancy outcomes.

In 2005, one author, discussing the absence of evidence relating to sexual intercourse and miscarriage, could still quote Sheila Kitzinger's *Woman's Experience of Sex*, published 20 years earlier in 1985: 'Kitzinger states that "no studies have been done to show whether not having sexual intercourse in early pregnancy helps to avoid miscarriage ..."'.<sup>8</sup> In the two intervening decades there had been no new studies on the subject and no new knowledge.

A 2007 review of 'non-surgical interventions' for the prevention of miscarriage confirmed the situation: 'no study has been done on the effect of sexual intercourse on first trimester miscarriages specifically'.<sup>9</sup> The authors state: 'more data is required to determine whether sexual intercourse has a negative impact on first trimester miscarriages. Till then, most doctors recommend that women with bleeding in pregnancy to refrain from sexual activity while permitting those without pain or bleeding in pregnancy to continue with coitus'.

In an article published in *Pulse* during 2009, the unevidenced advising described above is given an explicitly paternalistic rationale:

*'There is no evidence that sexual intercourse causes miscarriage. But it can be pragmatic to advise women with threatened miscarriage to avoid intercourse until after the bleeding has completely resolved so, if miscarriage does occur, the couple does not feel that they may have triggered or exacerbated events.'*<sup>10</sup>

The only paper purporting to offer any evidence on the association of sexual intercourse and early pregnancy loss is a retrospective questionnaire study that suffers greatly from many inadequacies (poor response rates, huge potential for selection and recall biases, post hoc re-

categorisation of case and control groups, and insufficient acknowledgement of confounding factors) limiting the believability of its findings.<sup>11</sup> Notably, women in the study are grouped naively according to: 'no sexual intercourse' versus 'sexual intercourse'. Even if we imagined that women could accurately recall whether or not they did or didn't have sex in the early stages of a pregnancy that may have occurred years earlier, the binary outcome variables clearly do not capture the range of possible experiences. Frequency, duration, nature, and intensity of sexual intercourse are crudely wrought into meaningless dichotomised categories.

### IMPACTS FOR WOMEN AND THEIR HEALTH CARE

A gross discrepancy is apparent between the dearth of useful evidence and the potential significance of evidence-based knowledge in this area. A Canadian study found almost half of its 141 pregnant participants worried that sexual intercourse might harm their pregnancy.<sup>12</sup> A Malaysian study found that almost three-quarters of pregnant women avoided sex at least some of the time, and for most women this was due to concerns about harm to the baby or risk of pregnancy loss.<sup>13</sup> A Nigerian study found a correlation between beliefs that intercourse could cause miscarriage, reduced frequency of intercourse, and increased likelihood of husbands having extra-marital sexual relations while their wife was pregnant; the authors reported:

*'Approximately one-third of husbands engage in extra-marital relationships as a way to satisfy their unmet sexual need during pregnancy.'*<sup>14</sup>

*'In the UK women with bleeding in early pregnancy are likely to consult their GPs before any other health professionals. For this reason research into threatened miscarriage is most appropriately conducted in general practice.'*<sup>15</sup>

This statement, made in an article that examined general practice management of threatened miscarriage 25 years ago, remains true today. The authors found that 'two-thirds of the practitioners advised [sexual] abstinence' and concluded that among GPs there is 'considerable collective uncertainty about the management of this common complication of pregnancy'. That 25 years later research should still be absent (research that could be 'most

appropriately conducted in general practice') and doctors should still be unable to satisfactorily answer questions about sex and miscarriage on account of the absence of research is clearly problematic in the context of pre-emptive advising and, equally significantly, retrospective counselling of women and their partners. These important questions remain inadequately addressed by researchers and clinicians, despite being potentially answerable.

### THE ORIGINS OF OUR NOT KNOWING

We have witnessed how medical reactions to the issue of sexual activity during early pregnancy have shifted from overt forbiddance to unopined silence; we have observed the dissonance between a question that women want answered and an apparently disinterested research agenda; and we have seen how when clinicians refer to sex in pregnancy their advising is liable to paternalism and how the few researchers touching on the issue have been unhelpfully chaste, while women continue to suffer from the lack of certainties. It is clear that, as doctors, we have not yet managed to engage appropriately and usefully in investigation and discussion of issues related to the sexuality of our female patients during pregnancy.

These facts represent a manifestation of larger professional and societal trends. Considered alongside the dragging efforts to make the oral contraceptive pill available without prescription<sup>16</sup> or the recent high court decision upholding restrictions on access to abortion pills<sup>17</sup> for example, the lack of medical knowledge regarding sex and pregnancy loss represents a medicalisation of the female body that permits little positive recognition of women's sexuality and potential for self-determination.

Past efforts and advice to prohibit sex during pregnancy were clearly not based on evidence, but on (mostly male) doctors' presumptions about female bodies and how they should behave. Persisting prejudice and prudishness may still be visible in the directions of recent research efforts that incline towards biological (anti-phospholipid syndrome, hypertension), or less provocative lifestyle (smoking, caffeine consumption) risk factors for pregnancy loss, rather than the effects of behaviours that include sexual activity.

The overall underrepresentation of early pregnancy loss in the research agenda appears distinctly at odds with, and indeed may suggest the hollowness of, concepts of

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the fetus' 'right to life': if such rights exist they might be better protected by increased knowledge of the causes and prevention of early pregnancy loss than by increased restrictions on pregnancy termination, for instance. However, the underrepresentation of early pregnancy loss in medical research is not at all at odds with, and indeed is wholly consistent with, an undervaluing of women's experiences and concerns within the medical world. This undervaluing becomes apparent in our consultations when we acknowledge that without any medical certainties to offer, advice delivered by doctors about preventing early pregnancy loss can be little more than superstition; and any counselling post-loss can be little more than supposition. In this context, our 'professional opinions' and paternalistic endeavours to reassure, being base-less and backed by no superior knowledge, appear patronising and serve only to substantiate our professional authority while disempowering our patients.

'Can sex during pregnancy cause a miscarriage?' Before answering this question we need first to confront our muddled and inhibited thinking about sexuality; to begin considering the patients' agendas and the issues that are important to them in the construction of an evidence base; and to reassess the undervaluing of women and women's health issues, specifically early pregnancy loss, in the research agenda.

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