

## FEATURE

## MEDICINE AND THE MEDIA

## Are new technologies in infertility treatment always good news?

Couples desperate to conceive may want to try costly new techniques that they've heard about from the lay media—even if their success is unproved. **Richard Hurley** reports

Richard Hurley *deputy magazine editor, BMJ*

When vulnerable couples trying in vitro fertilisation (IVF) learn of news reports about promising new techniques they may well demand them from their general practitioner or infertility clinics. They may be prepared to pay hundreds of pounds in the hope of improving their chances of a pregnancy. GPs and specialists too may be influenced by such coverage.

But these technologies might not actually work. The randomised controlled trials needed to show effectiveness can take years to perform. Many women near the end of their reproductive life, however, or after several unsuccessful cycles of IVF, and who are desperate for a child don't have time to wait 10-15 years to find out.

A retrospective study of one such technique was published on 9 May this year in the peer reviewed journal *Reproductive BioMedicine Online*.<sup>1</sup> It described use of time-lapse imaging to spot embryos at high risk of genetic abnormality, a key cause of failure in implantation, or later miscarriage, in IVF. Professor Simon Fishel, part of the team whose work led to the first IVF baby and managing director of the UK's largest private infertility clinic, the Care Fertility Group, was a coauthor.

The *Times* newspaper covered the story, headed, "New IVF technique could give 78 per cent chance of success." Fishel was quoted as saying: "In the 35 years I have been in this field, this is probably the most exciting and significant development."<sup>2</sup>

If true, this would indeed be exciting because it would represent a twofold or threefold increase in success rates.<sup>3</sup>

Other newspapers such as the *Daily Mail*<sup>4</sup> and *Daily Telegraph*<sup>5</sup> covered the story with headlines saying the technique tripled the chance of success.

However, Nick Macklon, professor of obstetrics and gynaecology at Southampton University and director of the Complete Fertility Centre, was less impressed. Although the technique might have promise, he wrote in a letter to the *Times*, rigorous testing for effectiveness was needed before it could be recommended.<sup>6</sup> "Journalistic enthusiasm for 'new breakthroughs' which ignores the lack of evidence of benefit

opens infertile couples to exploitation," he wrote, accusing the *Times* of hyping the research paper's message.

"This was presented as the definitive study," Macklon said at a discussion about the coverage of the story at London's City University last week.

Fishel, who was also at the City University debate, thinks that it might sometimes be worth trying untested treatments if they have shown some promise and couples are short on time. "IVF was not proved by an RCT," he said.

For fear of misrepresentation of their work, the study authors had involved the public relations agency Science Media Centre, which ran a journalists' briefing on 16 May. During this hour long session, the paper's authors described it as "the beginning of something revolutionary" and "a game changer."

"You'll agree that these are very impressive results," said Martin Johnson, editor of the journal and emeritus professor of reproductive sciences at Cambridge University. He went on to caution that other clinics should repeat the work and that all-important prospective randomised studies were needed. He also expressed the desire not to "overexcite patients." But this mention of the study's limitations lasted only two minutes.

"I was uncomfortable ... about the expectations of patients. It was not the first time and it will not be the last time where a scientist does not go out of their way to emphasise the limitations," Fiona Fox, chief executive of the Science Media Centre, told the *BMJ*.

The centre did, however, give journalists the written reactions of four independent experts.<sup>7</sup> These included, "Before we splash this on the front page it should be subject to full randomised control trials," and, "Unfortunately the study does not compare this exciting new approach with standard practice ... this study is an interesting piece of science but not clinically significant." Many news outlets quoted these experts, but the *Times* did not. It included such caveats only briefly and right at the end of its story.

Problems conceiving may affect as many as one in seven UK couples,<sup>8</sup> and everyone can relate to the triumph of medicine over the distress of childlessness. Stories about fertility treatments “set the hearts of news editors racing,” explained Hannah Devlin, science editor at the *Times* and who wrote the story, at the City event.

“And they come with pictures of cute babies. They’re almost too easy to get into papers. It’s an easy hit for journalists to make minor developments seem important,” she said.

This isn’t the first time that patients might have suffered for overblown stories about infertility research. More than a decade ago, preimplantation genetic screening in IVF was heralded as the answer to implantation problems, Macklon said at the City event. These hopes, built on positive initial observations and plausible biology, were dashed, however, when in 2007 the first randomised controlled trial showed that the £700 technique in fact reduced the chances of successful implantation and hence pregnancy.<sup>9</sup>

Other examples abound—for example, the *Daily Mail* recently covered unproved “immunomodulation therapy,” saying it costs £7000 a cycle, with the headline “Mayonnaise miracle babies.”<sup>10</sup>

“While the commercial return of such stories for the clinics reporting them is strong, the evidence supporting their effectiveness is usually weak,” Macklon said in his letter to the *Times*.<sup>6</sup>

In the UK much IVF treatment occurs in private sector clinics, which compete for market share, said Macklon on BBC Radio 4’s *Woman’s Hour*.<sup>11</sup>

“It’s a scandal, but that’s where we are,” he said at the City debate. “The websites of clinics give only the stories they want to tell.”

He drew attention to the inconsistency in one such press release from a clinic that said that it “prides itself on its evidence-based approach,” but that, “Before it can be offered to NHS patients en masse, the equipment will have to go through a period of evaluation.”<sup>12</sup>

And do such stories hinder recruitment of patients to the very clinical trials that would provide robust evidence of effectiveness? Once patients have “been filled with PR” why would they agree to be randomised and potentially not receive the treatment, Macklon asked at the City event.

“Scientists are now under a great deal of pressure to go out and educate people about what they are doing. But if journalists don’t handle the information responsibly then that is a great problem,” Johnson, the journal editor, told the *BMJ*.

Doctors, scientists, and press officers must keep trying to make sure that reporting research does not cause harm to patients, the City debate concluded. But ultimately newspaper reporters, subeditors, and editors must ask them the right questions to ensure that they give their readers the truth.

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