

ESHRE 2020 Virtual (5-8 July 2020)

Questions for the speakers

Session 42: Stress and infertility - The chicken or the egg

Just relax and it will happen?: The case against stress as a cause of infertility - Angela Lawson (U.S.A.)

Q: In my practice, women who quit highly stressful jobs were more likely to conceive. Isn't it due to less stress?

A: It is more likely that quitting their jobs and decreasing their stress lead to lifestyle habits that may have improved their pregnancy chances. For example, being less stressed may increase participation in fertility treatment or engagement in increased intercourse. Decreased stress can also lead to decreases in substance use which can increase pregnancy chances. Stress in these cases is not a biological cause of infertility but rather it may be contributing to poor lifestyle choices which are the cause of difficulty conceiving. Further, there are likely many more women who have quit their jobs and have not conceived. As a society we often seek confirmation bias and only remember the times that things worked out the way we believe they should (e.g., not remembering the women who quit and didn't conceive, or simply not knowing who quit their jobs and who conceived or did not conceive).

Q: Do you think lack of models to assess stress, and underestimating counseling contribute to the poor data and finding a strong relationships difficult?

A: No I do not believe this. We have numerous ways to assess stress (e.g., stress hormones, RCTs on relaxation and pregnancy rates) and none have proven a biological relationship between stress and infertility. Further, the majority of individuals with infertility have a medical cause for infertility, and stress did not cause that medical diagnosis (e.g., stress can't cause blocked tubes). Additionally, as both presenters discussed, in order for any species to survive it has to be able to reproduce even during times of stress.

Q: You recommend that patients are not told to 'relax' should people/patients be educated about stress, associated behaviors and the link with infertility?

A: Yes, good education is key here. Sharing with patients that there is no rigorous data which supports stress as a cause of infertility is important. So is sharing all the ways that stress can have a non-biological role in fertility (e.g., increased risk of smoking, alcohol use, decreased sex, etc.). Therefore, helping patients learn to manage their stress is beneficial for mood and potentially for reproduction.

Q: Can we measure the oxidative stress?

A: Yes, there are ways to measure oxidative stress, but it would have to be done within a rigorously controlled study to see if psychological stress was the cause of oxidative stress.

Q: Is there a difference between stress and depression?

A: Yes there is a difference. Stressful events in our lives are called stressors. Stress is an internal state caused by these stressors. Positive responses to these stressors can lead to eustress (which can enhance our performance) and negative responses can lead to distress (namely the development of symptoms of a mood or anxiety disorder).

Q: Different definitions for "stress" "stressors" "infertility" etc. were used even "within" presentations defending support separate evidence. Exact comparisons?

A: I am sure of the question here. I don't believe either of us used more than 1 definition of infertility. However, it appears there was some confusion about other language. Stressful events in our lives are called stressors. Stress is an internal state caused by these stressors. Positive responses to these stressors can lead to eustress (which can enhance our performance) and negative responses can lead to distress (namely the development of symptoms of a mood or anxiety disorder. When we talk about stress in reproductive literature we are talking about psychological stress (patient's perceptions of their own stress levels) as well as about distress (depression and anxiety in fertility patients).

Q: Stress has any role in increasing incidence of fibroids and endometriosis

A: Endometriosis has been shown to cause stress and distress but stress/distress is an unlikely cause of fibroids or endo and no research supports it as such a cause.

Q: The problem is, should all patients who fail IVF do a psychiatric consultation?

A: No. Since it does not appear that stress causes infertility, all patients who fail IVF should be offered counseling to cope with their inability to conceive.

Patients with indication for fertility treatment and high levels of stress, should we postpone treatment and perform therapies to improve psychological status?

A: Some patients who are acutely distressed may benefit from waiting to begin treatment, this is particularly true if their distress would prevent them from being able to effectively cope with treatment or be treatment compliant. Most patients however are able to engage in treatment while distressed.

Q: In vet medicine we know that stressed cows show poor fertility and poor response to superovulation. Epigenetics?

A: I don't know the literature on cows but I would assume that stressed cows also engage in behaviors that could decrease fertility (e.g., eating changes, etc.)? I would need to know more about this literature.

Q: If the patient is feeling emotional distress should we not try and support them holistically even if this does not directly improve their treatment outcome?

A: We should try to help patients cope with their distress (this can include holistic treatment). What we should not do is offer patients treatments that promise to help increase their pregnancy rates by decreasing stress rates (using either eastern or western medicine) because no rigorous research supports this.

Q: Interesting to look at fertility / LBR in war-torn countries?

A: There is no rigorous research that supports different LBR in war-torn countries or in non-war countries following major disasters.

Q: Great inspiring session! Let's help couples manage their distress irrespective of evidence on the link between distress and IVF success

A: Thanks! Agreed!

Q: I think it is Infertility itself that causes stress and not vice versa. Some patients are psychologically and physically relaxed yet they are unable to conceive

A: Agreed!

Q: Both speakers: Is there a role for dedicated IVF coaching/counselling for couples at key points in the IVF journey?

A: I'm not sure what IVF coaching is. If it is psychotherapy/counselling provided by an appropriately trained individual then yes there is a role for therapy in helping patients cope before, during, and at times after the IVF journey.

Q: Both speakers: Seems we are in a circular argument unless one can globally 'measure' stress precisely and accurately - what is the future/ can technology help?

A: I'm not sure I would agree that it is a circular argument. There are rigorous ways to assess stress/distress and fertility. Those studies have not yet been conducted. I believe the future will include less research in general on stress as a cause of infertility as there is not a lot of utility in such work. We know that patients are stressed/distressed so perhaps the future will focus on not blaming women for their difficulty conceiving and rather will focus on helping women and men cope with their stress/distress.

Q: Both speakers - several fertility clinics offer stress release methods to improve success. Should we add these treatments to the HFEA traffic lights?

A: Absolutely!

Q: Would either of you predict this stressful pandemic would lower fertility rates in the general population or result in poorer response to fertility treatment?

A: No, I do not expect it to lower fertility rates. I think some people may delay growing their families due to the pandemic but I do not think we will see increases in infertility or poorer responses to fertility treatments (unless the stress of the pandemic leads to increases in substance use, obesity, etc.).

Q: To both. If people start talking more about 'how hard it is to become pregnant', people would not feel so guilty and would look for help sooner and faster?

A: I agree!

Q: Isn't it a fact that infertility seems to be unfair: You can do everything right and still won't get pregnant? That injustice causes stress.

A: I agree, the unfairness of infertility definitely causes stress/distress.

Q: To both: The latest Domar research suggests that their Online Mind-Body Program has shown an increase in pregnancy outcomes. Any views on that?

A: Yes, while she is a respected researcher, much of her work is not based on an RCT design and all of her RCT studies showing a link between stress and fertility are included as examples of biased and flawed studies in a recent Cochrane Review.

Q: Both Speakers: So, it's better to say to the patients: "don't worry about your stress", only don't stop intercourse or your treatment protocol"..?

A: Actually, I would say that stress has not been shown to cause fertility but stress can affect us emotionally so let's see what we can do to help you cope with your stress.