



Book Review

Your Fertile Years: What You Need to Know to Make Informed Choices By Joyce Harper. Sheldon Press. \$19.99. September 2021. ISBN: 152935627X

Deema Ebrahim AISabi

Postgraduate, Division of Medicine, University College London

ORCID

Deema Ebrahim AISabi: <https://orcid.org/0009-0005-2066-8694>

Corresponding Author: Deema
Ebrahim AISabi; email:
deemaalsabi@gmail.com

Submitted: October 12, 2023
Accepted: December 12, 2023
Published: January 31, 2024

Production and Hosting by
Knowledge E

© Deema Ebrahim
AISabi. This article is
distributed under the terms of
the [Creative Commons
Attribution License](#), which
permits unrestricted use and
redistribution provided that
the original author and source
are credited.

Managing Editor:
Natasha Mansur

In order to make informed choices, it is crucial to have awareness. This is the central message conveyed by Dr. Joyce Harper, a renowned expert in global fertility education and professor of reproductive science at University College London, in her book titled, *Your Fertile Years: What You Need to Know to Make Informed Choices*. She begins by sharing her personal experience with fertility difficulties including utilizing in-vitro fertilization (IVF) to be able to have children after seven years of trying. Her personal experiences allow for a profound projection of intricate detail and truth within her writing.

The author takes an interesting, individualized approach in her writing style, which allows the reader to make their own judgments, and make applications to their own lives. She indirectly emphasizes there being no one-size-fits all fix to fertility. In addition, Dr. Harper attempts to surpass the conventional topics regarding women's reproductive health such as puberty and sexually transmitted diseases (STIs). Instead, she tries to provide a more holistic, all-inclusive collection of easily-accessible information in a convenient book, rather than allowing a reader to face overwhelming amounts of online sources, some of which may be misleading. Cochrane Reviews have been used frequently in the book to provide evidence. These reviews base findings on research that meet quality criteria. There is also reference to key international health bodies such as the WHO and the UK Royal College of Obstetricians & Gynaecologists (RCOG), which further strengthens the credibility of evidence.

The author first emphasizes self-familiarization with one's anatomy, then delves into detailed explanation of human reproductive organ functions. This includes the ovaries housing immature eggs, with one egg maturing each month under the influence of specific hormones (Reed et al., 2018). The author presents technical details in an engaging and simplified manner. The topics covered range from understanding the



female body, fertility decline, reproductive health, contraceptive methods, pregnancy, and birth. The book also addresses more complex subjects like sexually transmitted diseases, genetic testing, egg freezing, fertility treatments, menopause, and future reproductive prospects. The book emphasizes fertility decline, supported by UK fertility statistics. According to the World Health Organization (WHO), infertility is defined as a year of unsuccessful attempts at pregnancy (World Health Organization, 2023). The fertility rate of women in the United Arab Emirates (UAE) decreased by approximately 44% from 2000 to 2021 (The World Bank, 2021). Late marriages are proposed as a contributing factor, a risk highlighted in the book for fertility decline (ASRM, 2017). Studies reveal an increase in the marital age of women in the UAE from around 24 years in 2001 to about 26 years in 2018 (Abu Dhabi Statistics Center, 2019). This underscores the importance of understanding fertility. The author references RCOG reports, suggesting that women should ideally complete their childbearing by age 35.

The chapter on reproductive optimization underscores the significant impact of nutrition and exercise on fertility (Stephenson et al., 2018). In the UAE, there is a notable issue with high rates of obesity (Mamdouh et al., 2023) and type 2 diabetes (Shah et al., 2017). Preventable fertility risks in the UAE include consanguineous marriage and non-communicable diseases like diabetes and obesity (Abdo et al., 2023). The author provides evidence-based dietary and exercise recommendations for optimizing fertility. This includes increasing high-fiber foods while minimizing high-glycemic load foods, which have been shown to improve conception chances (Willis et al., 2020). Exercise is also crucial. Worldwide, women tend to exercise less than men according to the WHO (World Health Organization, 2022). A meta-analysis involving 12,988 young subjects revealed that almost a quarter were physically inactive (Yamine, 2017). The author stresses the importance of moderate and regular exercise for enhancing fertility and expediting conception in women who exercise (Hakimi & Cameron, 2017). The book introduces FemTech, a range of technologies focused on women's health. It advocates for using applications that consider menstrual monitoring, basal body temperature, LH levels, and cervical mucus for ovulation tracking, rather than just conventional menstrual cycle monitoring alone (Ali et al., 2020). One example is the FDA-cleared app "Natural Cycles" (Natural Cycles, 2023). The author also covers contraceptive methods, emphasizes the seriousness of sexually transmitted diseases, and explores their impact on fertility. She addresses the physical aspects of reproductive relationships and stresses the importance of good communication.

Pregnancy recommendations are discussed thoroughly. The author highlights the significance of taking 400 mg/day of folic acid starting 12 weeks before conception and

continuing for 12 weeks into pregnancy to reduce neural tube defects (SACN, 2017). A survey in the Al Ain medical district showed that only 8.7% of postpartum women were aware of folic acid's role in preventing birth defects (Abdulrazzaq, 2003), suggesting that many may not be starting the supplement early enough. The author also emphasizes the importance of vitamin D for fertilized egg implantation and placental development. However, a study in the UAE revealed a lack of awareness about vitamin D's functions beyond bone health among women (AlBlooshi et al., 2023).

The book identifies key causes of infertility, including anovulation, polycystic ovary syndrome, weight factors, hormonal imbalance, age-related factors, and uterine issues like endometriosis and infections. Various testing methods are discussed, such as ovarian reserve tests to assess egg count. Additionally, it emphasizes the importance of checking for fallopian tube blockages. In cases where this is the issue, IVF is the recommended treatment (Johnson et al., 2010). The author discusses assisted conception technologies, notably IVF, a 30-min procedure involving the implantation of a fertilized egg into the uterus (Choe & Shanks, 2022). It is noted that this typically involves the use of fertility drugs, often accompanied by unpleasant side effects, to enhance the chances of success. The author also recommends complementary therapies like consulting a nutritionist and maintaining physical activity to support infertility treatment.

The author introduces egg freezing, a process of preserving matured eggs for potential future use in IVF (Polyakov et al., 2023). It is recommended as a backup plan rather than a primary method of conception. Despite having a similar success rate as fresh eggs (ASRM, 2013), it may be considered an expensive option that could be avoided with better planning and fertility education at a younger age. The book then explores the journey of menopause, discussing short-term side effects like headaches and palpitations, as well as more serious concerns like the increased risk of osteoporosis and cardiovascular disease. Lifestyle changes and drug treatments for alleviating discomfort are suggested.

Lastly, the author contemplates future prospects for reproductive technologies, including in-vitro reproductive cells, womb transplants, pre-implantation genetic testing (PGT), and genetic editing. The ethical implications of these methods are a subject of intense debate. While genetic editing initially aimed to correct disease mutations, it opens the door to potentially limitless genetic possibilities, such as selecting traits like eye color or athletic abilities for future generations.

To conclude, the evidence combined brings forward a message to encourage women to contemplate and decide whether they want children by their late 20s to early 30s. While some women may feel a sense of failure and regret if they fail to conceive,

others may be indifferent, as childbearing isn't a part of everyone's plan. Regardless, the crucial matter is that all women are well informed of all aspects of fertility, like the existence of a fertility window to the available treatments if faced with pregnancy difficulties. This book provides the means to acquire such necessary knowledge on women's reproductive health.

References

- [1] Abdo, N. M., Ahmad, H., Loney, T., Zarmakoupis, P. N., Aslam, I., Irfan, S., Grivna, M., Ahmed, L. A., & Al-Rifai, R. H. (2023). Characterization of fertility clinic attendees in the Abu Dhabi emirate, United Arab Emirates: A cross-sectional study. *International Journal of Environmental Research and Public Health*, 20(3), 1692.
- [2] Abdulrazzaq, Y. M., Al-Gazali, L. I., Bener, A., Hossein, M., Verghese, M., Dawodu, A., & Padmanabhan, R. (2003). Folic acid awareness and intake survey in the United Arab Emirates. *Reproductive Toxicology*, 17(2), 171–176.
- [3] Abu Dhabi Statistics Center. (2019). *Statistical Yearbook: Marriage and Divorce 2019*. Abu Dhabi Statistics Center.
- [4] AlBlooshi, S., Al Anouti, F., & Hijazi, R. (2023). Knowledge about Vitamin D among Women in the United Arab Emirates. *International Journal of Environmental Research and public health*, 20(2), 1252. <https://doi.org/10.3390/ijerph20021252>
- [5] Ali, R., Gürtin, Z. B., & Harper, J. C. (2020). Do fertility tracking applications offer women useful information about their fertile window? *Reproductive Biomedicine Online*, S1472-6483(20), 30509-5.
- [6] Choe, J., & Shanks, A. L. (2022). In vitro fertilization. In *StatPearls*. StatPearls Publishing.
- [7] Hakimi, O., & Cameron, L. C. (2017). Effect of exercise on ovulation: A systematic review. *Sports Medicine*, 47(8), 1555–1567.
- [8] Johnson, N., van Voorst, S., Sowter, M. C., Strandell, A., & Mol, B. W. (2010). Surgical treatment for tubal disease in women due to undergo in vitro fertilisation. *The Cochrane Database of Systematic Reviews*, 2010(1), CD002125.
- [9] Mamdouh, H., Hussain, H.Y., Ibrahim, G.M., Alawadi, F., Hassanein, M., Zarooni, A.A., Suwaidi, H.A., Hassan, A., Alsheikh-Ali, A. & Alnakhi, W.K. (2023). Prevalence and associated risk factors of overweight and obesity among adult population in Dubai: A population-based cross-sectional survey in Dubai, the United Arab Emirates. *BMJ Open*, 13(1), e062053.

- [10] Natural Cycles (2023). *How does natural cycles work?* Natural Cycles. <https://www.naturalcycles.com/how-does-natural-cycles-work>
- [11] Polyakov, A., Piskopos, J., & Rozen, G. (2023). Elective egg freezing: State of the ART. *Australian Journal of General Practice*, 52(1–2), 20–23.
- [12] Practice Committee of the American Society for Reproductive Medicine in collaboration with the Society for Reproductive Endocrinology and Infertility (ASRM). (2017). Optimizing natural fertility: A committee opinion. *Fertility and Sterility*, 107(1), 52–58. <https://doi.org/10.1016/j.fertnstert.2016.09.029>
- [13] Practice Committees of the American Society for Reproductive Medicine and the Society for Assisted Reproductive Technology (ASRM). (2013). Mature oocyte cryopreservation: A guideline. *Fertility and Sterility*, 99(1), 37–43.
- [14] Reed, B. G., & Carr, B. R. (2018). The normal menstrual cycle and the control of ovulation. In K. R. Feingold (Eds.) et. al., *Endotext*. MDText.com, Inc.
- [15] Scientific Advisory Committee on Nutrition (SACN). (2017). *Update on folic acid*. Scientific Advisory Committee on Nutrition. https://assets.publishing.service.gov.uk/media/5a82c5e240f0b62305b94444/SACN_Update_on_folic_acid.pdf
- [16] Shah, S. M., Ali, R., Loney, T., Aziz, F., ElBarazi, I., Al Dhaheri, S., Farooqi, M. H., & Blair, I. (2017). Prevalence of diabetes among migrant women and duration of residence in the United Arab Emirates: A cross sectional study. *PloS One*, 12(1), e0169949.
- [17] Stephenson, J., Heslehurst, N., Hall, J., Schoenaker, D. A. J. M., Hutchinson, J., Cade, J. E., Poston, L., Barrett, G., Crozier, S. R., Barker, M., Kumaran, K., Yajnik, C. S., Baird, J., & Mishra, G. D. (2018). Before the beginning: Nutrition and lifestyle in the preconception period and its importance for future health. *Lancet*, 391(10132), 1830–1841.
- [18] Telecommunications and Digital Government Regulatory Authority (TDRA). (2023, July 12). *Premarital counselling and screening*. TDRA. <https://u.ae/en/information-and-services/social-affairs/marriage/premarital-counselling-and-screening#:~:text=Premarital%20examination%20is%20a%20requirement,infectious%20diseases%20and%20genetic%20diseases>
- [19] The World Bank. (2021). *Fertility rate, total (births per woman) - United Arab Emirates*. World Bank Open Data. <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=AE>
- [20] Willis, S. K., Wise, L. A., Wesselink, A. K., Rothman, K. J., Mikkelsen, E. M., Tucker, K. L., Trolle, E., & Hatch, E. E. (2020). Glycemic load, dietary fiber, and added sugar and

fecundability in 2 preconception cohorts. *The American Journal of Clinical Nutrition*, 112(1), 27–38.

- [21] World Health Organization. (2022, October 5). *Physical activity*. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/physical-activity>
- [22] World Health Organization. (2023, April 3). *Infertility*. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/infertility#:~:text=Infertility%20is%20a%20disease%20of,on%20their%20families%20and%20communities>
- [23] Yammine K. (2017). The prevalence of physical activity among the young population of UAE: a meta-analysis. *Perspectives in Public Health*, 137(5), 275–280.