Exploration of the Effectiveness of NaProTechnology in Women's Healthcare

Cecilia Cerven, GVSN, Undergraduate Honors Student & Dr. Kelli Damstra, DNP, MSN, RN

Grand Valley State University
Kirkhof College of Nursing

What can it help with?

- Infertility
- Menstrual Cramps
- Premenstrual Syndrome (PMS)
- Ovarian Cysts
- Irregular or Abnormal Bleeding
- Polycystic Ovarian Syndrome (PCOS)
- Repetitive Miscarriage
- Hormonal Abnormalities
- Chronic Discharges
- Prevention of Preterm Birth
- Tubal Occlusion
- Ectopic Pregnancy
- Endometriosis
- Postpartum Depression (PPD)

Effectiveness Summary

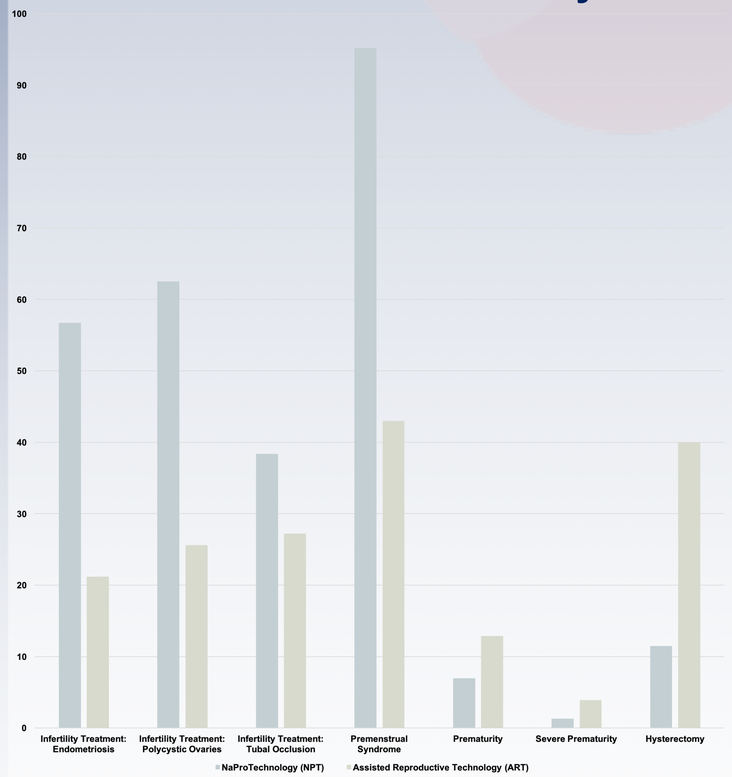

Figure 2: Pope Paul VI Institute for the Study of Human Reproduction. (2004). Effectiveness summary: natural procreative (NaPro) technology vs. artificial reproductive technologies [Table]. Retrieved from: https://www.popepaulvi.com/PDF/NaPro-vs-ART.pdf

Nursing Influence & Opportunities

- Patient Education
- Individualized Care
- Engagement in Nursing Research
- Professional Development
- CrMS Training
- Advanced Practice Consultation

What is NaProTechnology?

NaProTechnology (NPT) is a medical and surgical approach to fertility care that works synergistically with a woman's reproductive system. It does this by identifying the root of the problem and working to correct it in conjunction with the natural fertility cycle. NPT uses Fertility Awareness-Based Methods (FABMs), like the Creighton Model System (CrMS), to diagnose and treat chronic disorders related to infertility.

Holistic Health Impacts

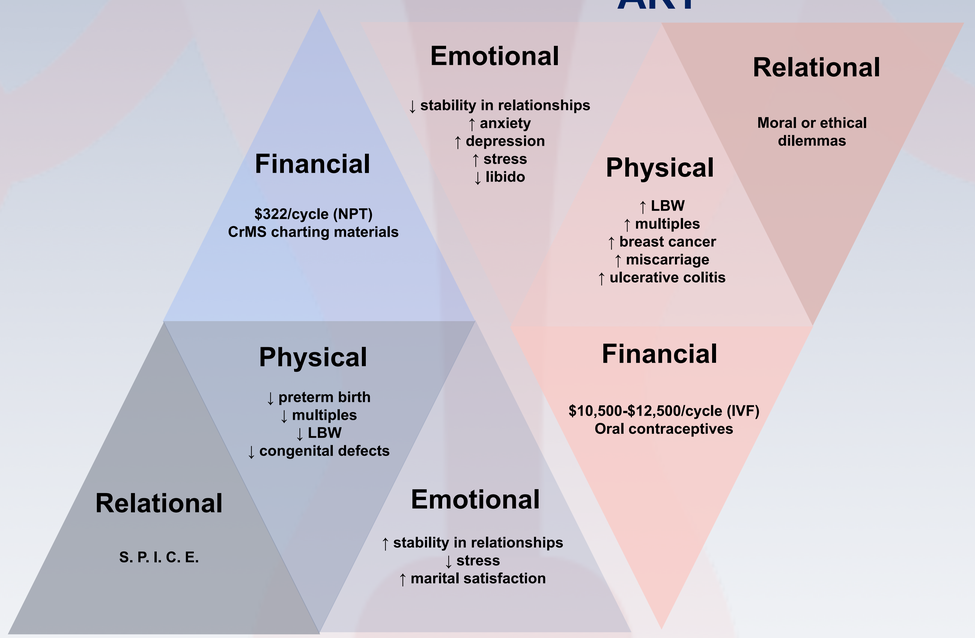

Figure 1: Wang, X., Fan, X., Deng, H., Zhang, X., Zhang, K., Xu, J., Li, N., Han, Q., & Liu, Z. (2019). Use of oral contraceptives and risk of ulcerative colitis – a systematic review and meta-analysis. *Pharmacological Research, 139*, 367-374. doi: 10.1016/j.phrs.2018.11.036; Ji, L., Jing, C., Zhuang, S., Pan, W., & Hu, X. (2019). Effect of age at first use of oral contraceptives on breast cancer risk – an updated meta-analysis. *Medicine, 98*(36), e15719. doi: 10.1097%2FMD.0000000000015719; Garcia-Enguidanos, A., Martinez, D., Calle, M.E., Luna, S., Bernabe, J.V., & Dominguez-Rojas, V. (2005). Long-term use of oral contraceptives increases the risk of miscarriage. *Fertility and Sterility, 83*(6). doi: 10.1016/j.fertnstert.2004.11.085; LoGiudice, J.A., Massaro, J. (2018). The impact of complementary therapies on psychosocial factors in women undergoing in-vitro fertilization (IVF): a systematic literature review. *Applied Nursing Research, 39*, 220–228., doi: 10.1016/j.apnr.2017.11.025; Pope Paul VI Institute for the Study of Human Reproduction. (2004). Effectiveness summary: natural procreative (NaPro) technology vs. artificial reproductive technologies [Table]. Retrieved from: https://www.popepaulvi.com/PDF/NaPro-vs-ART.pdf; Klaus, H. & Cortes, M.E. (2015). Psychological, social, and spiritual effects of contraceptive steroid hormones. *The Linacre Quarterly, 82*(3), 283-300. doi: 10.1179%2F2050854915Y.0000000009; Ferris, R. (2011). Fertility awareness-based methods for family planning as an alternative to hormonal contraceptives for therapeutic reasons. *The Linacre Quarterly, 78*(2), 172-186. doi: 0024-3639/2011/7802-0004; Boyle, P.C., Groot, T., Andralojc, K.M., & Parnell, T.A. (2018). Healthy singleton pregnancies from restorative reproductive medicine (RRM) after failed IVF. *Frontiers in Medicine, 5*, 210. doi:10.3389/fmed.2018.00210; Asi, N., Mohammed, K., Haydour, Q., Gionfriddo, M. R., Vargas, O. L., Prokop, L. J., Faubion, S. S., & Murad, M. H. (2016). Progesterone vs. synthetic progestins and the risk of breast cancer: a systematic review and meta-analysis. *Systematic reviews, 5*(1), 121. doi: 10.1186/s13643-016-0294-5; Hilgers, T. (2019). Fertility care and naprotechnology: a contemporary approach to women's health care. Saint Paul VI Institute, 35-46.; Camacho, A. (2018). The effect of naprotechnology on marital interaction in couples with infertility. *Doctoral Dissertations, 2033*, 14. Retrieved from: https://opencommons.uconn.edu/dissertations/2033.

Maternal and Fetal Risks of Fertility Interventions

Natural Conception	Assisted Reproductive Technology
23% high order multiples	32% high order multiples
7.9% preterm birth	9.7% preterm birth
4.9% low birth weight	6.8% low birth weight
0.4% monozygosity	1.3% monozygosity
0.02% congenital malformation	0.15% congenital malformation
1.26% maternal morbidity	2.73% maternal morbidity

Figure 3: Kawwass, J.F. & Badell, M.L. (2018). Maternal and fetal risk associated with assisted reproductive technology. *Obstetrics & Gynecology, 132*(3), 763-772. doi: 10.1097/AOG.0000000000002786

How does it do this?

NaProTechnology utilizes the CrMS cycle tracking system, individualized hormone assessment, ultrasound technology, selective hysterosalpingography, and diagnostic laparoscopy for the detection, diagnosis, and treatment of chronic reproductive conditions.

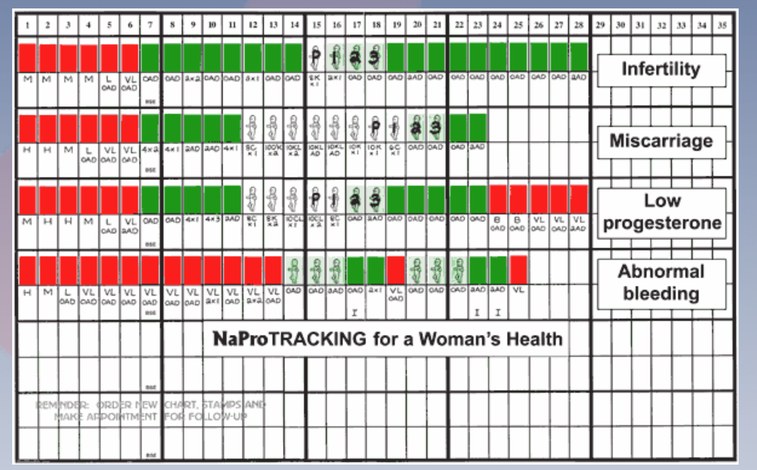

Figure 4: Hilgers, T. (2019). Fertility care and naprotechnology: a contemporary approach to women's health care. Saint Paul VI Institute, 83.

NaProTracking

Figure 4 displays four abnormal menstrual cycles charted using the Creighton (CrMS) method, or "NaProTracking", for women's health.

- Cycle 1: a <u>limited mucus cycle</u> is seen by few white and green baby stickers, which often indicates infertility or miscarriage.
- Cycle 2: a <u>short post-Peak phase</u> is noted, meaning that there is an inadequate luteal phase. This is seen in repetitive miscarriage and is identified by an insufficient number of solid green stickers at the end of the cycle.
- Cycle 3: <u>premenstrual spotting</u> is recorded as three or more days of light (L), very light (VL), or brown (B) bleeding prior to menstruation. These are seen by red stickers at the end of the cycle and indicate low progesterone.
- Cycle 4: <u>abnormal bleeding</u> is observed as an unusually long menstrual phase, followed by spotting and no cervical mucus build-up. This is represented by randomized red, solid green, and white/green baby stickers and is indicative of a variety of gynecological health problems.