Pregnancy Recognition Trajectories

A NOVEL CONCEPTUAL FRAMEWORK

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Dr Ann M Moore

Presentation at the Abortion + SRH Seminar Series, 04.09.24

Why pregnancy recognition?

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Potentially significant impact on pregnancy + care

- The literature recognises that recognition can have significant impacts on subsequent decision-making, care pathways, and outcomes

Most studies use pregnancy as a starting point

- Little is known about how people recognise their pregnancies
- Much health-related research starts at the point of a pregnancy already being known

Academic and policy language around pregnancy recognition is varied

Who we are

Dr Joe Strong (LSE, QMUL) is a feminist demographer whose work focusing on masculinities and SRHR

Dr Emily Freeman (LSE) is an inter-disciplinary researcher focusing on care and inequity in low- and middle-income countries

Prof Ernestina Coast (LSE) is a mixed methods social scientist [demography, anthropology] working on SRHR

Dr Ann M Moore (Guttmacher Institute) is a Principal Research Scientist focusing on SRH in South Asia, Africa and Latin America

Methods

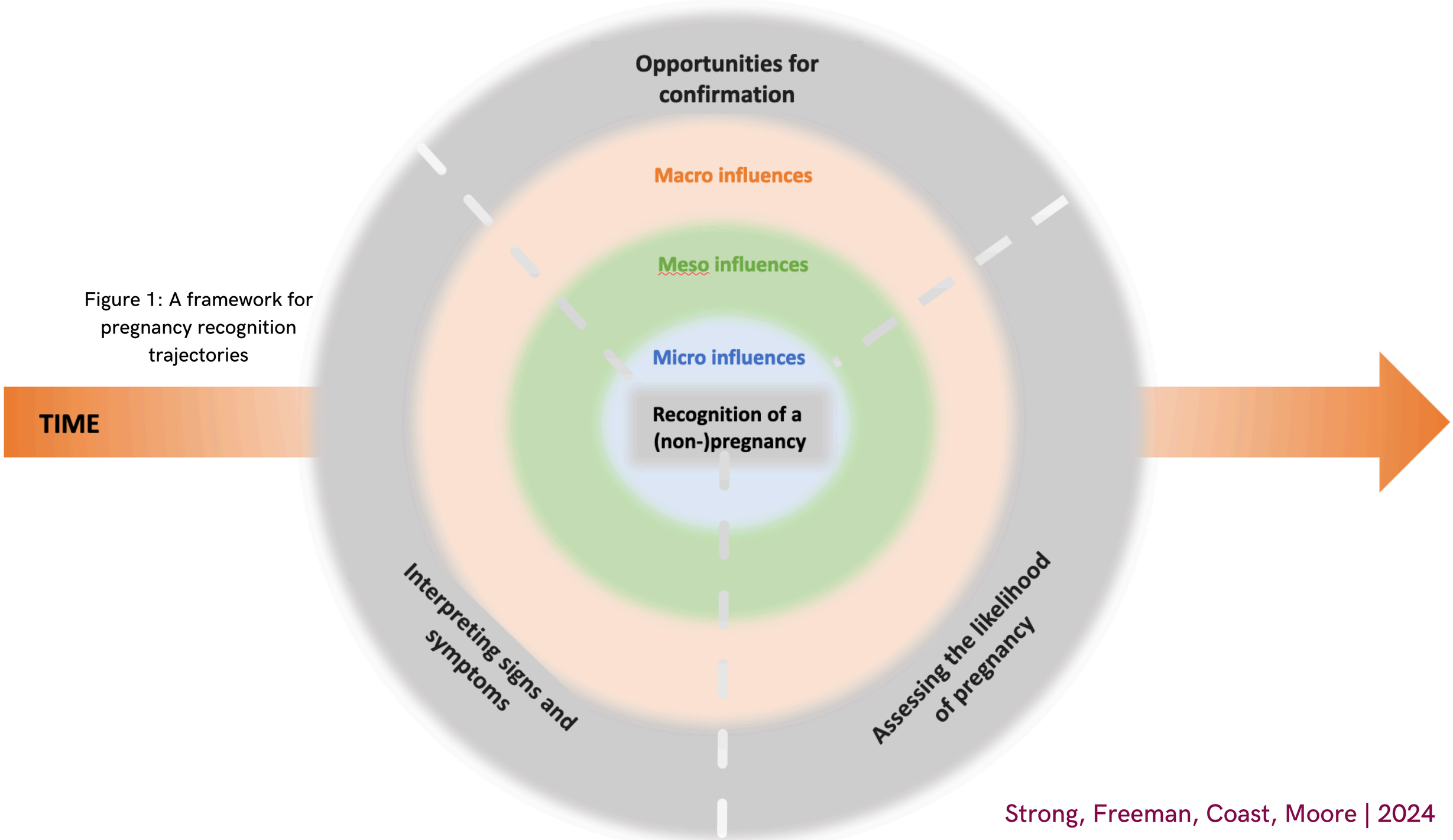
An inductive saturation approach to corpus of material published between 2000 and 2023

- **IBSS, Medline (Ovid), PsycInfo, CINAHL, CABI Direct**
- **Supplemented by purposive searches and expert recommendations**

Expert workshops and research seminars across disciplines with key stakeholders

- **Guttmacher Institute presentation (2023)**
- **Pregnancy Recognition ‘Thinkery’ (2024)**
- **Reproductive Trajectories: Interdisciplinary Approaches at QMUL (2024)**

Figure 1: A framework for pregnancy recognition trajectories



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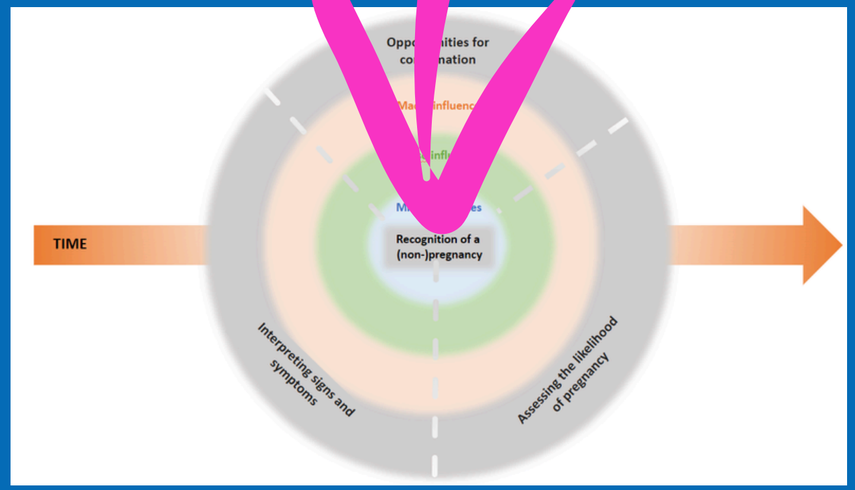
Recognition of a (non-)pregnancy



Understandings of a 'pregnancy'

- Pregnancy is a biomedical concept and a social construct
- Embracing of the concept of liminality
- A contextually sensitive understanding of ambiguities and notions of when a pregnancy occurs
- e.g.: Bell & Fissell, 2021; Rahman et al, 2024; Oluoch et al, 2015; Peacock et al, 2001; Côté-Arsenault et al, 2009)

Includes recognition of not being pregnant

- For example, people who have a pregnancy 'scare' or hope
- People who have had an abortion and want confirmation

A trajectory with a start and end for individuals

- Experiences can incorporate different phases, the same phase multiple times, non-linear, and have different starts and ends depending on the person

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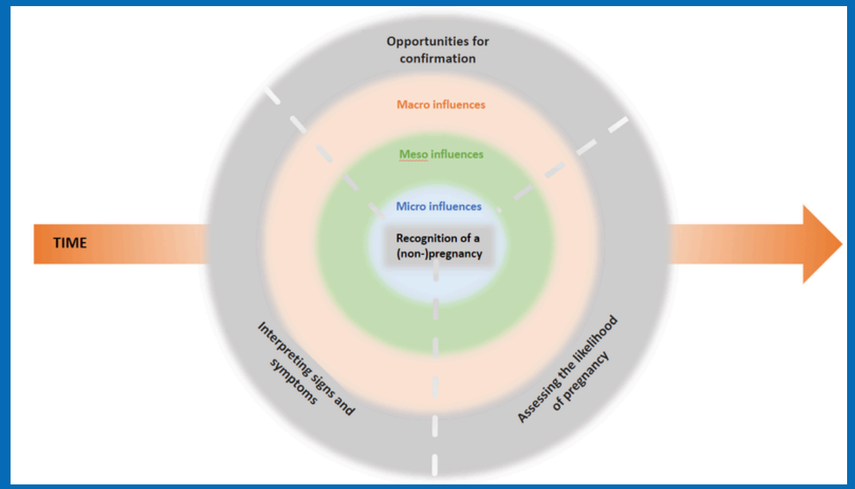
Time



Non-linear, multi-directional

- A person may move between phases, including between recognition and non-recognition
- Multiple manifestations of time, e.g., time between menstrual periods, last menstrual period, time within and between different phases, gestational age time, etc.

Pregnancy-related time e.g.:

- Pregnancy gestational age-related timings
- Timings of other pregnancy-related care that stratifies recognition as un/acceptable

Agnostic towards timing

- Framework centres an individual's understanding of when is an 'appropriate' or 'acceptable' time to recognise a pregnancy

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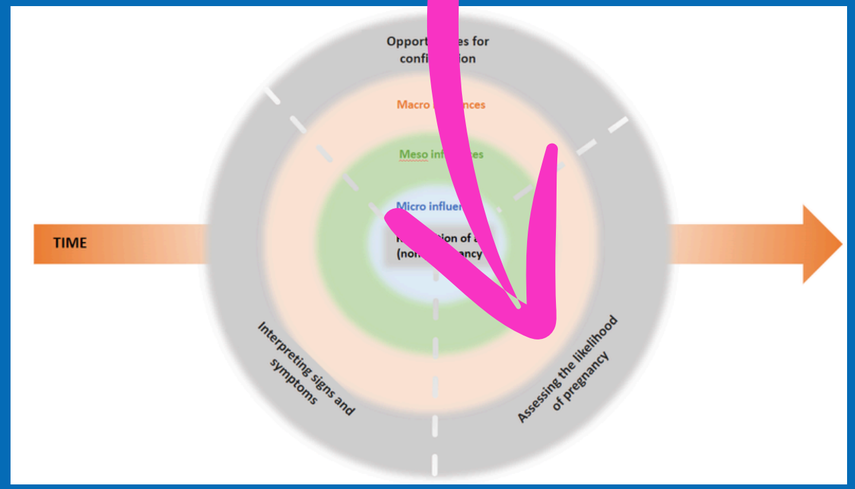
Assessing likelihood of pregnancy



1. Circumstances and possibilities of a pregnancy

2. Knowledge and information on pregnancy likelihood

3. Perceptions of (in)fecundity

4. Current and past contraceptive use

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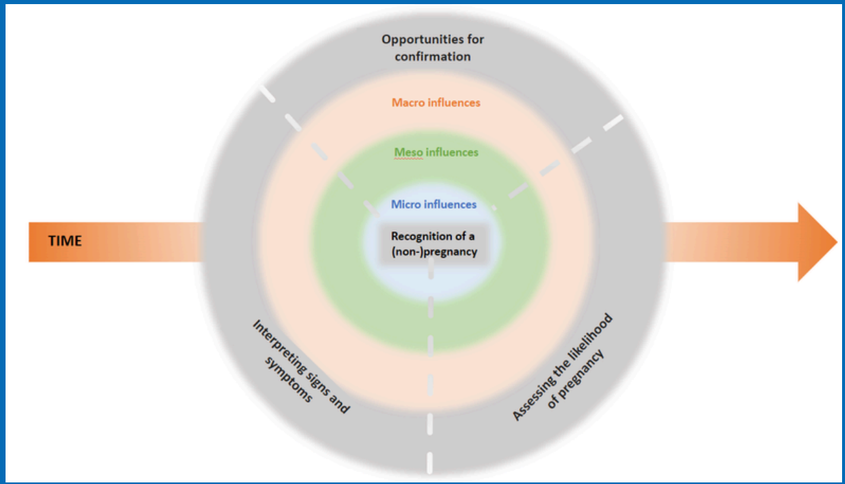
1. Circumstances and possibilities of a pregnancy

Assessment of the risk of likelihood of a pregnancy is:

- complex
- reflects the circumstances and experiences of a person and their encounter which could lead to a pregnancy

Different encounters impact a trajectory e.g.

- consensual sex with the aim of becoming pregnant
- non-consensual sexual violence
- sex with/out contraception
- the use of assisted reproductive technologies



The social acceptability (meso/macro) of the circumstances can contribute to whether recognition and / or denial occurs (e.g.: Kalyanwala et al, 2012)

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2. Knowledge and information on pregnancy likelihood

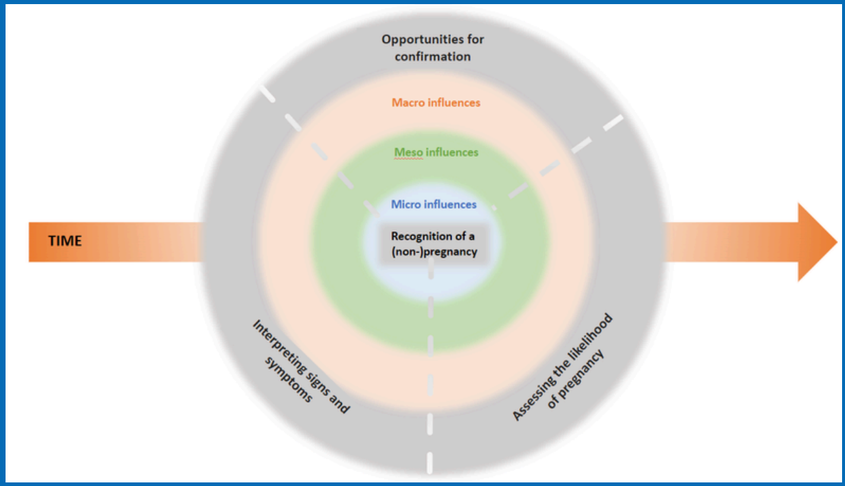
Knowledge and information about fertility and sex that may lead to pregnancy influences understandings (e.g.: Somefun et al, 2021)

- knowledge that pregnancy can occur when having sex for the first time (e.g.: Strong et al, 2023)

Quality and accessibility of information is unequal; different populations have access to different resources, e.g.:

- access to the internet (e.g.: Hamper, 2020)

Macro-level influences of policies, programmes, and other forms of educational provision influence knowledge levels within a given population e.g.: presence / absence / quality of comprehensive sexuality education



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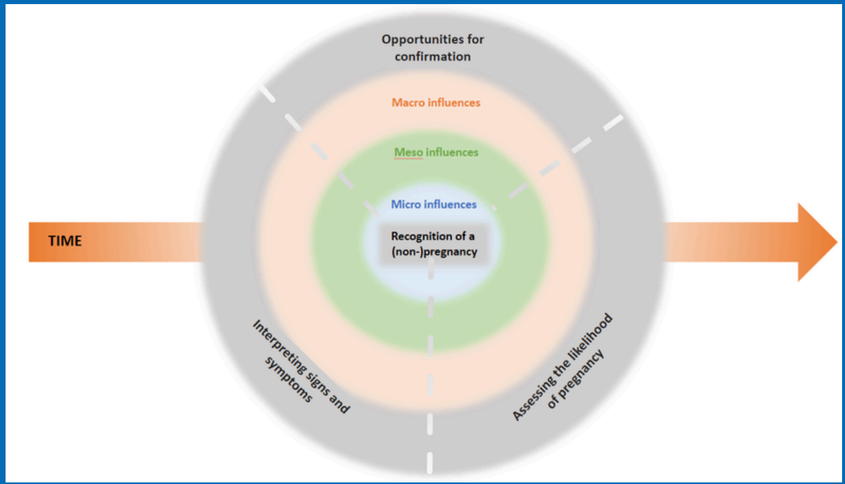
3. Perceptions of (in)fecundity

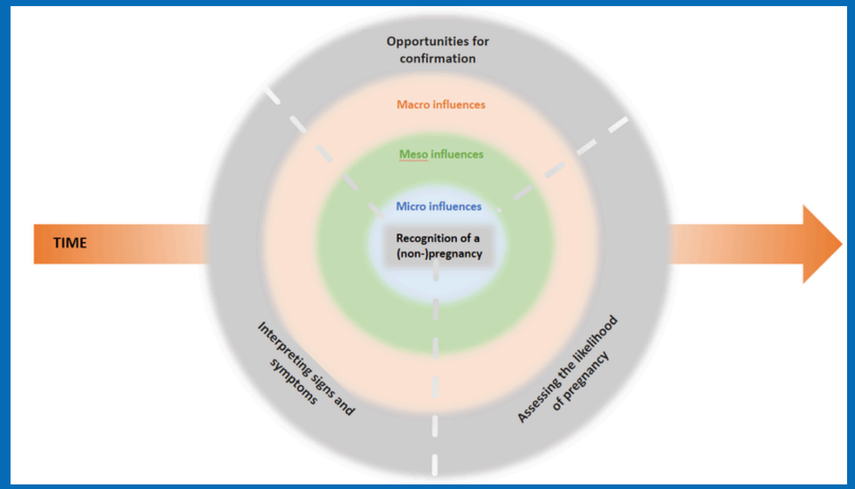
Shaped by community understandings around in/fecundity, e.g. interpretation of the risk of pregnancy while breastfeeding (e.g.: Ali et al, 2011)

Intersects with age and gender, e.g., role of menarche/(peri-)menopause (e.g.: Johnson-Mallard et al, 2017; Gallo & Nghia, 2007; Kjelsvik et al, 2018; Polis et al, 2020)

Healthcare providers and interactions with health systems can be important, e.g., provider dismissal of pregnancy-related symptoms based on presumed infecundity (e.g.: Watson & Angelotta, 2022)



4. Current and past contraceptive use



Using contraception can mean people are less likely to consider there to be a chance of a pregnancy (e.g.: Mohammadi et al, 2018)

Use of hormonal contraceptives that can affect menstrual bleeding can have implications for assessing pregnancy likelihood (e.g.: DePineres et al 2017; Shewaye et al, 2023)

Perceptions of prior contraceptive use impacting current fecundity (e.g.: Bell & Gemmill, 2021)

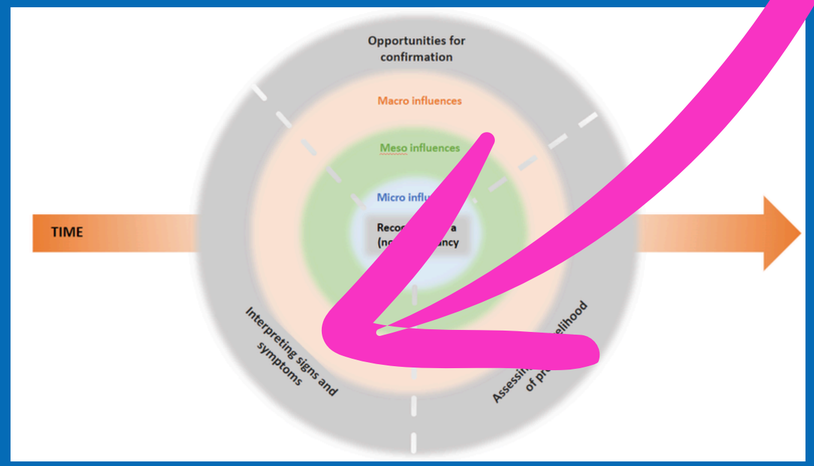
Interpreting signs and symptoms of a (potential) pregnancy

1. ‘Typicality’ of signs and symptoms

2. Experiences of menstruation and menstrual (non)changes

3. Social context

4. Epidemiological and health context



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1. ‘Typicality’ of signs and symptoms

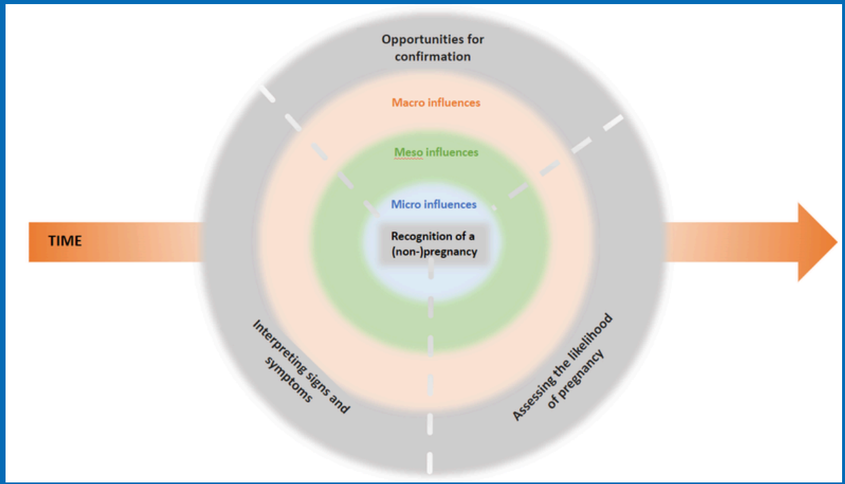
Signs and symptoms of (no) pregnancy are often framed as universal experiences and key factors in an individual’s recognition trajectory

Meso/Macro: Notions of ‘typicality’ can be constituted and (re)enforced through community-level shared understandings, as well as public health programmes, health care systems, education policies and popular culture

- Not having a specific symptom can delay recognition and subsequent care (e.g. legal abortion in Colombia, DePineres et al. 2017)

Micro: An individual actively trying to become pregnant might be more alert to potential signs and symptoms

Prior experience of pregnancy symptoms being the same or different



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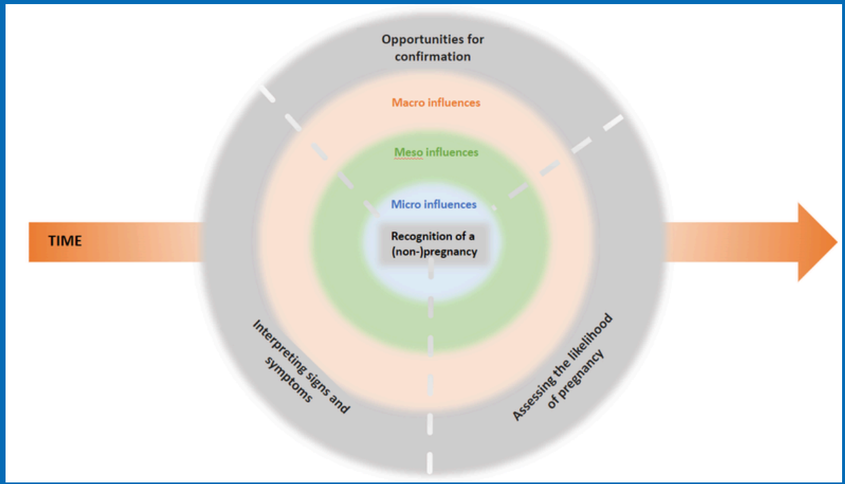
2. Menstruation and menstrual (non) changes

Many pregnancy assessments rely on an individual both having missed or changed menstruation and recognising that this is a sign of a potential pregnancy

"Irregular" periods, spotting between periods, and not missing periods are commonly reported across contexts as a reason for not suspecting a pregnancy (e.g.: Ethiopia – Mulat et al, 2015; South Africa – Kaswa et al, 2018; UK – Ingham et al. 2008)

People who's menstruation is disrupted or impacted by other health conditions or health care (e.g. chemotherapy), may not consider menstrual changes a useful, accurate, or notable sign or symptom of a pregnancy



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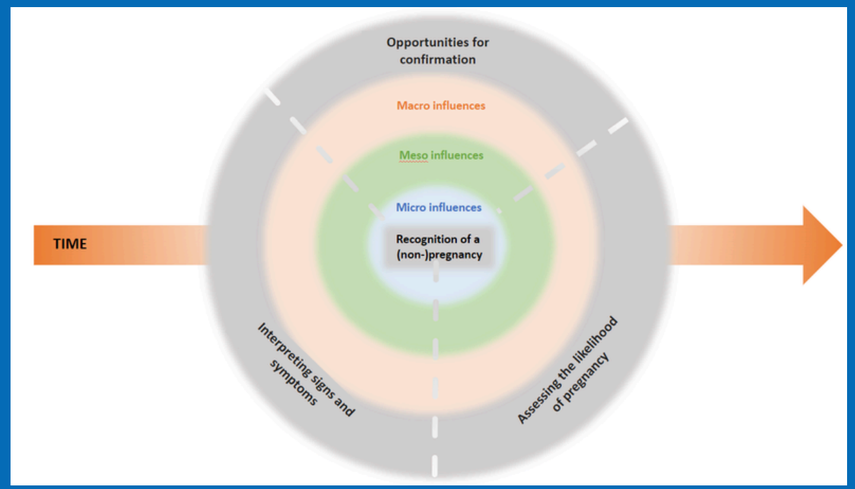
3. Social context

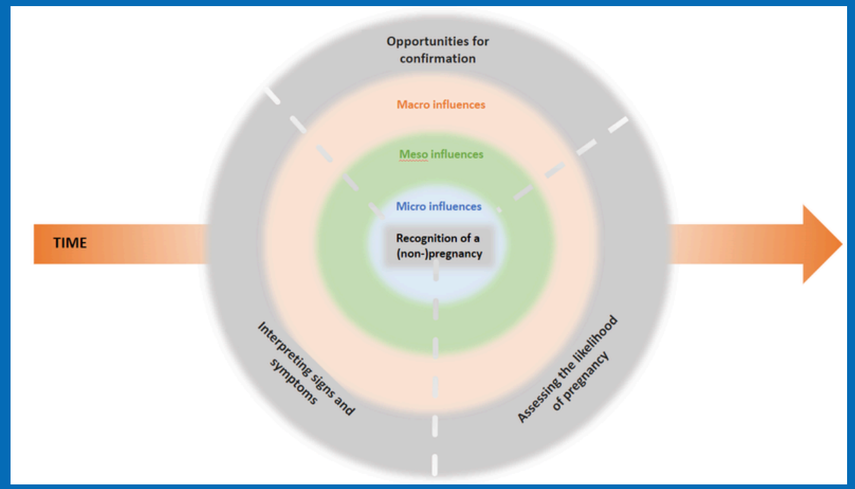
Partners, family, and community members can play a critical role in interpreting signs and symptoms; a person's social context can mean that other people notice a pregnancy before they do, alerting them to this (e.g. Kalyanwala et al., 2012; Strong, Coast, Fetters, et al., 2023; Frumence et al. 2019)

Women's perceptions of their choices around pregnancy outcomes contribute to the delay in acknowledging pregnancies (Peacock et al., 2001)

Where an individualsperceives a threat to a pregnancy – e.g., risk of miscarriage, superstition, witchcraft, evil spirits – they may have an incentive to avoid recognition or to conceal a known pregnancy from their social networks or wider community (Gross et al. 2012; Chimatiro et al. 2018



4. Epidemiological and health context



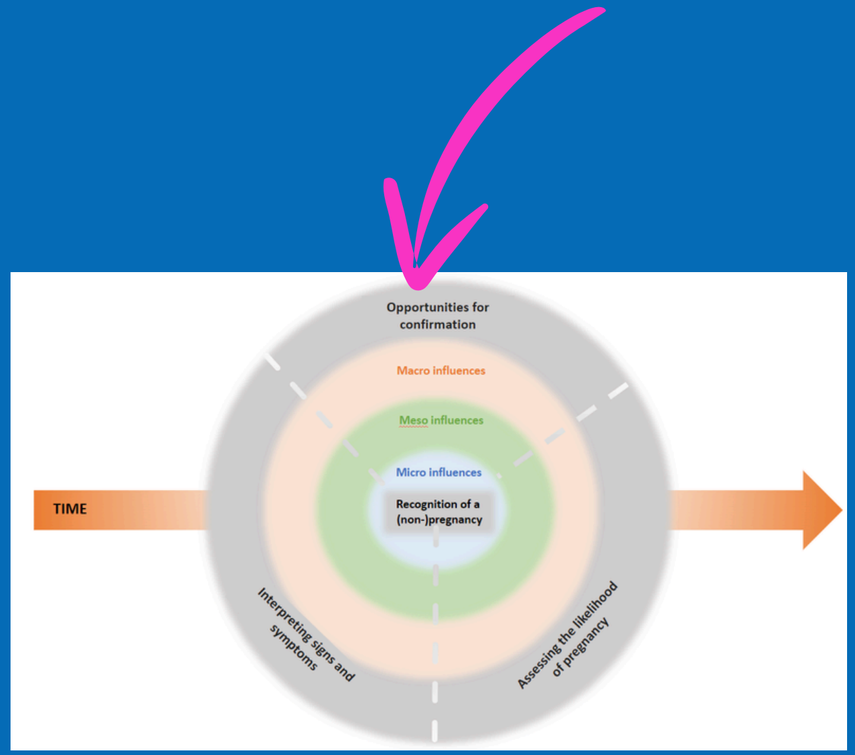
The typicality of signs and symptoms, and a person's interpretation that these would be connected to a pregnancy, are also embedded in the epidemological profile of where they live

e.g. Associating nausea and sickness with malaria in Uganda and Nigeria (Mbonye et al. 2006); gastric ulcers in Viet Nam (Gallo and Nghia 2007)

Multiple concurrent illnesses and treatment for those can further serve to confound the interpretation of the signs and symptoms of pregnancy

Links to healthcare providers' recognition of pregnancy risk and care (in)equity

Opportunities for confirmation



1. Medical and embodied confirmation
2. Accessibility of confirmation options
3. Acceptability of confirmation
4. Health systems and confirmation
5. Confirmation of the end of a pregnancy or no pregnancy
6. Medical and research interventions

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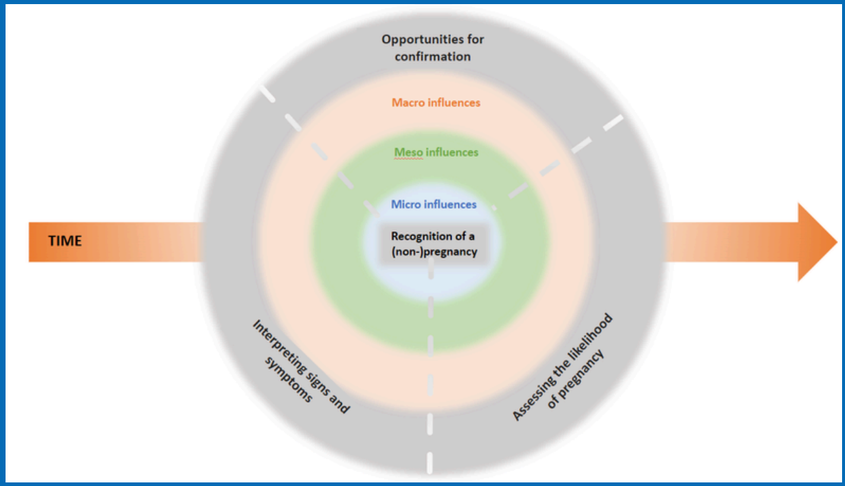
1. Medical and embodied confirmation

Approaches to 'confirmation' vary across the literature and among individuals themselves.

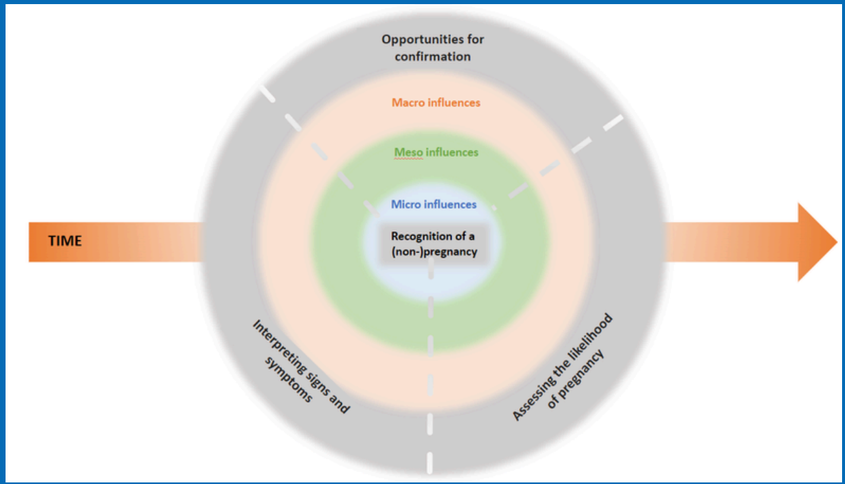
While much of the literature frames confirmation as occurring when a biomedical test is done, confirmation can be a result of noticing physical changes (either by the woman herself, or those around her) (e.g., Arey et al. 2023)



Embodied confirmation is pregnancy identified through bodily experiences:

- e.g. feeling pregnant or the experience of foetal movement (**"quickening"**) (Gross et al. 2012)

2. Accessibility of biomedical confirmation options



Opportunities to use different types of medical pregnancy confirmation tests (urine pregnancy test, ultrasound, etc.) are shaped by knowledge and access to places providing tests (e.g., Kemei et al. 2023)

The affordability and costs associated with medical testing determines who has access, and can become more expensive when numerous tests are taken (Strong et al. 2023)

Laws — or incorrect enforcement of laws — have significant implications:

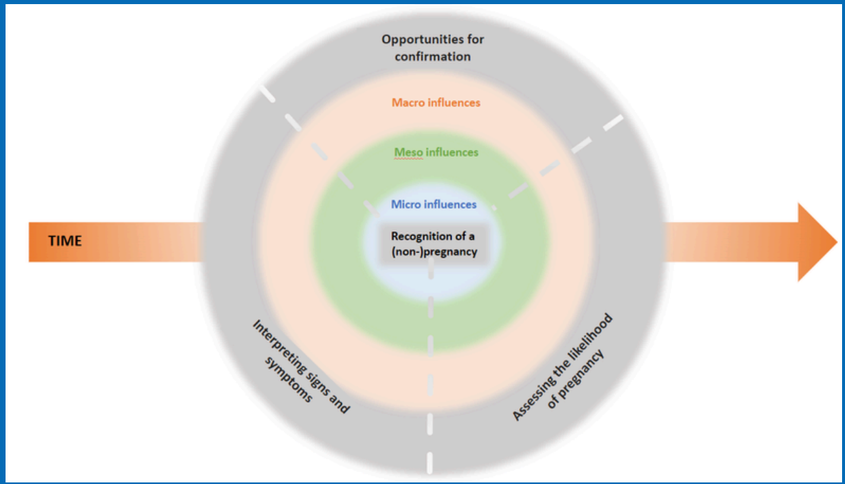
- e.g. concerns over buying tests among people who may want abortions in the USA

3. Acceptability of confirmation

Individuals may delay confirmation out of fear of other's reactions to the (possible) pregnancy (e.g., Ingham et al. 2008)

Some studies discuss the role of pregnancy 'denial' in recognition trajectories

- contestation of 'denial'; whether it was in fact strategic representation by the pregnant person is often not clear (Watson and Angelotta 2022)



Psychosocial factors also shape responses to medical pregnancy tests, e.g., varying levels of trust or confidence in (different types of) pregnancy tests (e.g., Mazumder et al, 2023)

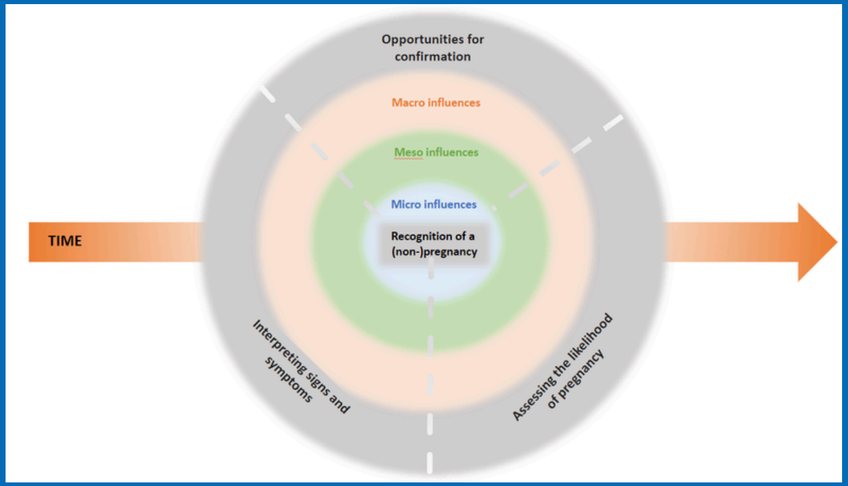
4. Health systems and confirmation

Healthcare providers can make assumptions of which populations should be offered pregnancy testing services

Provider awareness of access to different tests plays a part

- e.g., determining how, when, and whether to offer a pregnancy test; this can be shaped by who should be getting pregnant in that social context (Morroni and Moodley 2006)

Acceptability of the type of provider in addition to the location where the test was acquired can be important for having confidence in the results (e.g., Comfort et al. 2019)

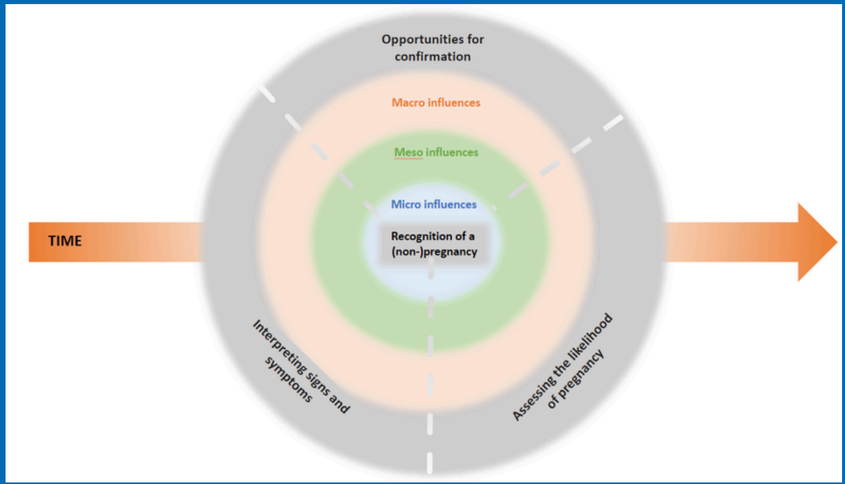


5. Confirmation of the end of a pregnancy or no pregnancy

Confirmation without biomedical testing is often when menstruation resumes

Confirmation via various modalities of testing (e.g. a multi-level pregnancy test, and mobile phone based tool) have been used post-abortion (e.g., Dabash et al. 2016; Constant et al. 2015)

People may conduct ongoing tests to continually confirm a pregnancy



6. Medical and research interventions

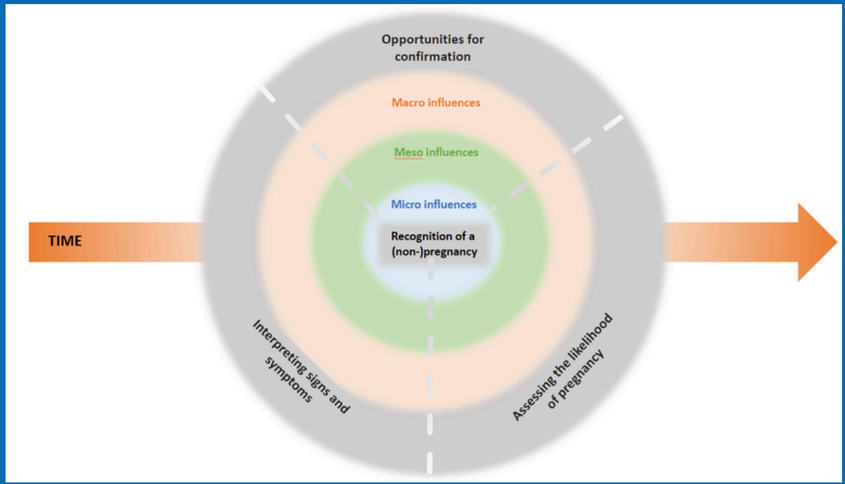
Medical interventions can require pregnancy tests,

- e.g., requiring pregnancy tests for HIV vaccine trails, or beginning on a hormonal contraceptive method (Stanback et al. 2006; Ruzagira et al. 2011)

Seeking healthcare for illnesses may result in getting tested for pregnancy with the individual finding out that they are pregnant

- e.g. going to a hospital with symptoms of Covid (Arey 2023)

Pregnancy confirmation – whilst not the focus of many a research or intervention study – is often incorporated into the research design; some research designs require pregnancy testing for participants



Discussion

Get in touch!

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- What do you think of our framework?
- Are we discussing its elements in an order that makes sense?
- Is there something missing that you think should be included?
- Is there something that is unclear or you disagree with?

Citations

If you are using information or thinking from this slidedeck in your work, please cite the following:

Presentation: Strong, J., E. Freeman, E. Coast, A. M. Moore (2024). Pregnancy Recognition Trajectories: A Novel Conceptual Framework. Presentation at the Abortion + SRH Seminar Series, 04.09.24

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