

CONCEPTUAL MODEL OF INFERTILITY PREVENTION

Jacky Boivin, School of Psychology, Cardiff University

Marcia Inhorn, Department of Anthropology, Yale University

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In holistic interpretations of health (e.g., WHO), prevention needs to target physical and non-physical aspects of disease and be delivered continuously over the life course (Baird et al. 2017). Modifiable causes and risks for infertility and fertility problems can be eliminated or minimised through primary prevention, but non-modifiable causes need management and prevention of significant disease burden. Fertility awareness is a key feature of prevention efforts; it refers to knowledge of reproduction, fecundity, fecundability, related risk factors for infertility, and reproductive options for family building (Zegers-Hochschild et al. 2017). Despite strong links between a diversity of global risk factors (e.g., infectious, environmental, occupational, behavioural, age) and fertility problems (Bayoumi et al. 2021) a global lack of knowledge about fertility and infertility has been demonstrated. Gaps in knowledge need to be addressed through prevention efforts.

However, a conceptual model for prevention of fertility problems is lacking despite a plethora of research designed for prevention. Figure 1 illustrates the types of preventive interventions, mechanisms of action and outcomes in extant research organised in a conceptual model. Key aspects of this model are heterogeneity and complexity. Heterogeneity is evident in (a) nature of preventive efforts being delivered at diverse societal levels and points in the reproductive life course, (b) proposed mechanisms of action that include decision-making and behaviour change at individual levels but also organisational and policy change, and healthcare provision, and (c) proximal and distal outcomes that relate to monitoring of mechanisms of action, and prevalence and impact of disease. Future prevention research should aim to design studies using conceptual models of fertility prevention.

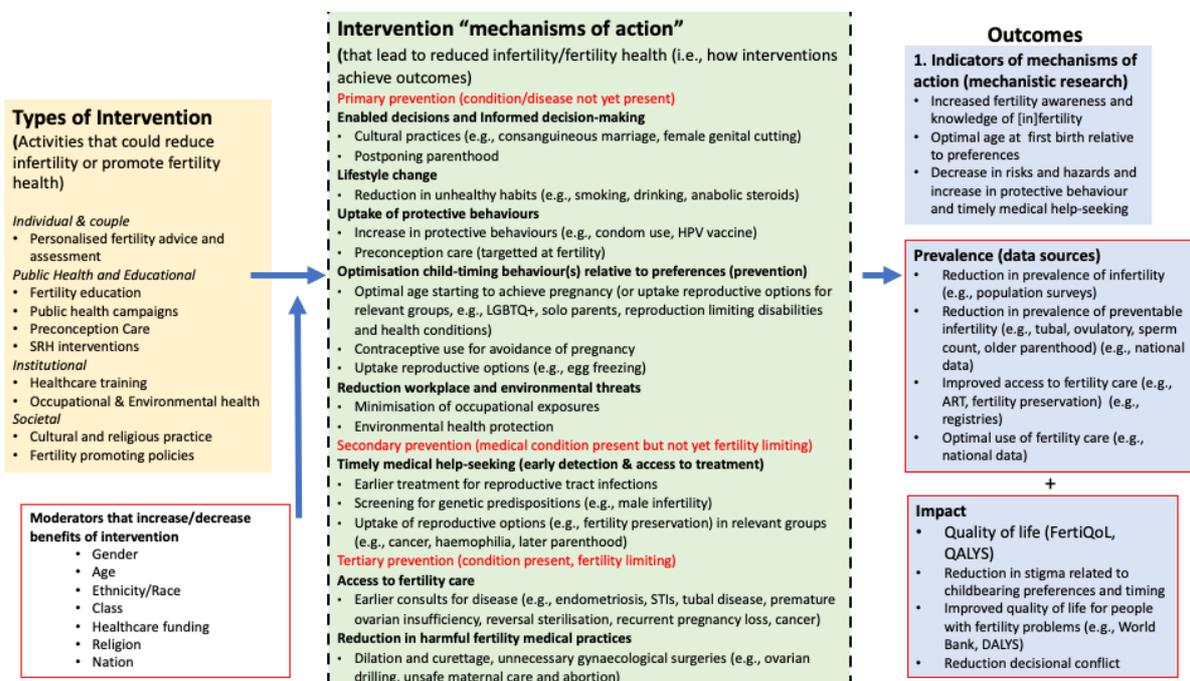


Figure 1: Conceptual model for prevention of infertility and fertility problems drawn from empirical prevention research. Yellow = indicates types of interventions delivered at different individual and societal levels. Green = indicates mechanisms of change targeted in research from pre-disease to post-disease states. Blue = indicates prevention outcomes targeted which could be indicators of mechanisms of change or fertility-related outcomes. White = moderators affecting effectiveness of prevention effort.

References

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