Introduction

Globally, total fertility rates are declining, and family forms are diversifying, making it crucial to understand how medically assisted reproduction (MAR) fits into these changing contexts (Choi et al., 2023). MAR addresses infertility and is shaped by varying national policies that reflect each country's views on family and reproductive norms (Kaser et al., 2019). Welfare state policies significantly influence MAR access and support, reflecting broader societal beliefs about family and workforce participation (Esping-Andersen, 1990; Adamczyk, 2024).

Gosta Esping-Andersen's framework, "Three Worlds of Welfare Capitalism," explores how welfare states differ based on state assistance versus private market reliance (Esping-Andersen, 1990). Ann Shola Orloff later expanded this framework to address the "inattention to gender" by repositioning the formerly private welfare provider of women in families into the dimensions of state and market support (Orloff, 1993). Orloff's framework therefore acknowledges the "compulsory altruism" that women experience under all welfare regimes and recognises that this welfare is the first line of defence across all advanced capitalist societies (Orloff, 1993; Taylor-Gooby, 1991, p.101-102). Her work acknowledges that women's roles in families and the workforce impact their access to welfare, making gendered perspectives essential in analysing MAR policies and its implications on demographic outcomes (Nakray, 2022).

This paper examines MAR policies in four countries representing different welfare state models: Denmark (social-democratic), Australia (liberal), Italy (conservative-corporatist), and Singapore (East Asian). These case studies illustrate how specific welfare frameworks influence reproductive strategies and policy design, which is shaped by each nation's unique historical, economic, political, and cultural contexts.

This paper aims to contribute to our understanding of family policy design by highlighting the specific effects of social welfare on contemporary reproductive strategies. It fills a gap in the current research landscape by contextualising specific case studies within a welfare framework. This creates a necessary reference point when considering the implications of family policy.

Method and Results

A case study approach was used to compare several types of welfare typologies against the fertility policy of each nation. The materials collected include previous research from each nation case, as well relevant policies and laws surrounding MAR.

Table 1. Summary of results

	Denmark	Australia	Singapore	Italy
	Socio-democratic	*Liberal*	*East Asian*	*Conservative*
Demographics				
Total population (millions)	5.91	25.98	4.07	58.94
Total fertility rate	1.55, 2023	1.69, 2023	1.04, 2023	1.25, 2021
Mean age childbearing	31.4, 2023	31.9, 2022	31.4, 2022	32.4, 2022
MAR				
Rates of use	12%[a], 2021	5.4%[a], 2021	3%[a], 2009[b]	2.8%[a], 2020
Methods available	Sperm and egg donation, ART, altruistic surrogacy, cryostorage	Sperm and egg donation, ART, altruistic surrogacy, cryostorage	Sperm and egg donation, ART, cryostorage	Sperm and egg donation, ART
National Subsidy	First three cycles free	75 % of cost can be covered by Medicare	$15,000 withdrawal from Medisave, 75% subsidy for three fresh/frozen cycles of ART	Nil
Additional services	MAR tourism Subsidy for private clinic services	Rebates for infertility treatment Counselling services	$1,000 rebate for IUI, two subsidised cycles can be completed over age 40	IARTR website
Exclusions	Women over 46 Physical or mental unfitness	Women over 46 Subsidy and accessibility differ by state	Limited access for women over 40 Non-heterosexual relationships, including divorcees	Anyone without a diagnosis of medical infertility[c]

Source for demographic data: (OECD, 2023a; 2023b; 2023c)
a. percentage of births that utilised MAR b. 8,700 cycles of ART, 2019
c. including heterosexual and unmarried relationships and divorcees

Discussion

As the global challenge of falling fertility rates persists across all welfare states, it is evident that there are varying responses and degrees of success at slowing this demographic trend. The two most liberal social welfare states, Denmark and Australia, both feature more accessible MAR options, such as subsidies and rebates, and an acceptance of non-traditional families. They have also seen a higher and steadier TFR compared to their more conservative counterparts. When considering Orloff's social welfare framework, Denmark and Australia are the only welfare states with policy motivated by accessibility for women, rather than a national demographic or economic agenda. This distinction in motivation is necessary to understand the underlying drivers of change and how the resulting policies have shaped the current welfare of each nation. Although MAR does not account for the majority of births in any of the countries, there can be an association made between rates of MAR usage and women's accessibility to social welfare programs more generally.

The robust policies offered by the Danish public healthcare system are expected in a social democratic welfare state. The egalitarian nature of this welfare state indicates that women's welfare is more central to policy decisions than wider economic or population goals. Through this perspective, the majority of responsibility of MAR accessibility is placed upon the pillar of the state, encouraging a prioritisation of individual fertility desires, giving women greater autonomy, with less concern placed upon the falling fertility rates. It is through the government that family and fertility is achieved, with the definition of family encompassing a boarder scope of diversity and inclusion.

Australia's state-driven family policies are largely responding to the challenge of a falling fertility rate, as well as to support women's economic participation. This motivation is one of the largest distinctions between the socio-democratic welfare of Denmark. Whilst Australia uses a governing system that features universal healthcare benefits, including reproductive and family subsidies, it is more obvious in this liberal welfare context that cost and social barriers continue to limit the equal access to MAR, especially within the private market.

Singapore's recent adaptation of a more robust monetary support system for MAR provides an increased utilisation of government welfare. This recent shift indicates that Singapore is aware of the importance of addressing their fertility trends, and that there is

a growing recognition of the needs of women and mothers when enacting welfare policy. The social welfare system of Singapore is beginning to reduce economic barriers to fertility treatment to reinvigorate the birth rate, or at least stabilise it. However, it also continues to focus on achieving economic output, therefore discrediting the social and intersectional welfare needs of women. The current restrictions of MAR for only traditional family forms and the lack of recognition of gendered barriers to family and workforce participation will likely continue to impinge TFR despite recent family policy efforts.

Italy's traditionally conservative values of family and gender have the largest impact on its current MAR policy, which is unlikely to impact the falling fertility rate. Under Italy's conservative welfare system, family is the main pillar of support. Without the assistance of either state support nor private markets, limitations in the accessibility of MAR remain present. Additionally, restrictions on eligibility of parents perpetuate economic and gendered barriers to fertility. It is clear from the lack of assisted fertility policy, that Italy is disregarding the concerning downward trend of their long-term fertility due to the current political and economic priorities of the nation. The ageing population and subsequent decreasing total population size can be partially attributed to limited family policies, with MAR accessibility being an aspect of this. State support for family planning and inclusion of diverse family types in MAR policy will benefit those in their reproductive years.

Ultimately, MAR policy is one aspect of a wider suite of fertility and family policy. It is influenced by the consideration of women's welfare in economic and social policy in more liberal welfare states, and as diversified family forms become accepted in conservative welfare states. MAR provides an excellent indicator for the direction of social welfare offered across differing nations. However, it is necessary to note the importance of an integrated approach to family policy, which considers the individual woman in the wider economic landscape, in order to overcome more systemic barriers to childbearing beyond assisted reproduction.