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TITLE: Attitudes and intentions towards parenthood and reproduction in young adults: A comparison between UK and Italy

Theoretical background

The transition to parenthood is a fundamental psychological process, heavily influenced by contextual factors. Italian natality rates have been progressively decreasing for two decades. Recent statistics (ISTAT, 2023) show that for the first time ever, in 2022, less than 400,000 infants were born, with a 27,000-decrease compared to 2019. More than 80% of this drop is tied to waning numbers of women of fertile age: mothers' age at birth is progressively increasing, with a current average of 32.4 years and ~9% of infants born from women 40 or older (ISTAT, 2023).

This age increase is troubling given the negative relationship between female age and fertility (ESHRE Capri Workshop Group, 2005), which starts falling at 30, with a sharp decrease after 35, a drop which cannot be compensated through in vitro fertilisation use (Leridon, 2004).

Young adults, in Western contexts, perceive the achievement of career and educational goals, and of relationship and economic stability as barriers to childbearing (Lampic et al., 2006; Peterson et al., 2012). They also lack awareness of the age-related decline in female fertility, leading to their planning childbearing at ages when this decline has already begun, heightening the risk of childlessness, which would leave unfulfilled the desire for parenthood shared by almost 90% of young adults (Lampic et al., 2006; Peterson et al., 2012; Prior et al., 2017).

Notably, while Italian young adults have been shown to consider parenthood an important part of their life (Rovei et al., 2010), the barriers perceived against childbearing have only been investigated in Italian women aged 30-35 (Lebano & Jamieson, 2020), and not at younger ages before fertility drops. Better characterisation of early childbearing plans and of barriers perceived against it would enable better timed interventions, and comparisons with different cultural contexts would enable better targeting of policies to local requirements.

A useful comparison would be one with the United Kingdom (UK), a Western country of similar population size to Italy, but with less troubling natality trends, having 620,000 infants born per year to mothers aged 30.9 on average (Office for National Statistics, 2023). UK data collection would be enabled by the proponent's strong University of Liverpool links.

Aims and Hypotheses

The study aims to characterise Italian young adults' childbearing attitudes and plans, and the barriers perceive against it. A UK-Italy comparison will then address these aims:

1. Compare desired childbearing age, and number of children in Italian and UK young adults. Given the higher Italian average maternal age at birth, and the lower number of infants born per year vs. UK, this will show whether these differences are also present at an early planning stage, controlling for demographic variables. Italian participants are expected to report the highest age, and the lowest number of children.

2. Investigate the effects on childbearing plans of personal/societal childbearing barriers perceived by young adults and, comparing Italy and UK, also taking into account age, education level, and income. Given these countries' similar western background, but different natality statistics, this may highlight potential specific targets for policy and intervention. Given its novelty, this aim is exploratory.

Methods
Participants

An a priori power analysis in G*Power 3.1 (Faul et al., 2007) indicated a sample size of 645, based on a small effect size of f^2=.05, a β=.80, and an α=.05, assuming a multiple linear regression model predicting desired childbearing age, with the 4 most supported barriers to childbearing in each

country, the level of fertility awareness, age, years in education, and income as predictors, moderated by country and gender. Allowing for a 30% attrition rate, 840 individuals, with equal gender representation, aged 18-24, without children, and fluent in the local language will be recruited, half in Italy and half in the UK, through social media and links existing between the proponents' research group and local young adult associations and workgroups.

Tools
- *Ad hoc Sociodemographic Questionnaire* on gender, age, years in education, and income.
- *Swedish Fertility Awareness Questionnaire* (*SFAQ*; Lampic et al., 2006): having good face validity and reliability in numerous international contexts (Lampic et al., 2006; Peterson et al., 2012; Chan et al., 2014), this tool uses 46 items to investigate childbearing intentions and plans, both generally, and in terms of age, number of children, and plans in case of infertility. It also probes the personal and societal barriers perceived as important for childbearing, and the expectations for life changes brought by parenthood. Lastly, it probes fertility issue awareness (e.g., age-related fertility changes, pregnancy likelihood, in vitro fertilisation success rates). This study will rely on a forward and backward translation process, conducted by native Italian-English speakers, to obtain an Italian version, in line with previous SFAQ studies in international contexts (Peterson et al., 2012; Chan et al., 2014).

Procedure
A Qualtrics survey link with study tools will be provided to participants. Having accessed this, individuals will be shown an information sheet on study purpose and nature, with research team contact details for further enquiries. Having provided informed consent, participants will access the questionnaires, and will be debriefed after their completion.

Statistical analyses
Hypotheses 1 will be tested with ANCOVAs, and hypothesis 2 using multiple linear regression (with stepwise model selection by AIC), with desired childbearing age as dependent variable and the 4 barriers for childbearing most supported in each country, fertility awareness, age, years in education and income as predictors, with the moderation of country and gender. Analyses will be conducted in R (R Core Team, 2023).

Declaration of commitment to request ethical approval
In line with the Helsinki Declaration, ethical approval will be sought from the Department of Psychology Ethics Committees of the Universities of Bologna and Liverpool.

Expected results
Based on aim 1, on average, Italian young adults, vs. UK ones, are expected to want their first child at an older age and fewer children.
Aim 2 results should identify specific barriers to childbearing postponing this in Italian young adults.

Implications
The study will offer novel characterisation of Italian young adults' childbearing attitudes and plans. A comparison with a Western context with higher natality will show whether the Italian childbearing reduction and postponement are present at an early planning stage and will enable identification of the specific childbearing barriers perceived by Italian young adults, supporting policy targeting and better timed preventive interventions to promote personal well-being in the transition to parenthood.

References

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PLAN OF ACTIVITIES

Project activities and Gantt chart timeline: Literature review; Application for ethical approval; Qualtrics survey creation; Sample recruitment; Database creation and statistical analyses; Manuscript writing for peer-reviewed journals; Dissemination of results at (inter)national conferences.

Task	1	2	3	4	5	6	7	8	9	10	11	12
Literature review	■	■	■				■					■
Application for ethical approval	■	■										
Qualtrics survey creation		■										
Sample recruitment			■	■	■	■	■	■				
Database creation and statistical analyses	■	■								■	■	
Manuscript writing for peer-reviewed journals											■	■
Result dissemination at (inter)national conferences											■	■

(Header spanning columns 1–12: "12 Months")

Training activities. Research groups meetings; Participation in seminars and workshops.

Feasibility of the project. The suggested study measures and tools (e.g., SFAQ, Qualtrics) are readily available to the proponent, and of proven validity. Young adult recruitment should be achievable through the social media, the proponent's double appointment at the Universities of Bologna and Liverpool and his research group's local young adult associations and workgroups links.