

Objective

Rising global prevalence of gestational diabetes mellitus (GDM)¹
UK NICE: selective GDM screening using OGTT for high-risk women²
FIGO: recommends universal GDM screening³
Multiple GDM risk prediction tools exist, but limited clinical adoption⁴⁻⁷
Primary aim: Identify risk factors for GDM across four countries (see Table 1)
Secondary aim: Assess sensitivity and specificity of NICE criteria for GDM diagnosis

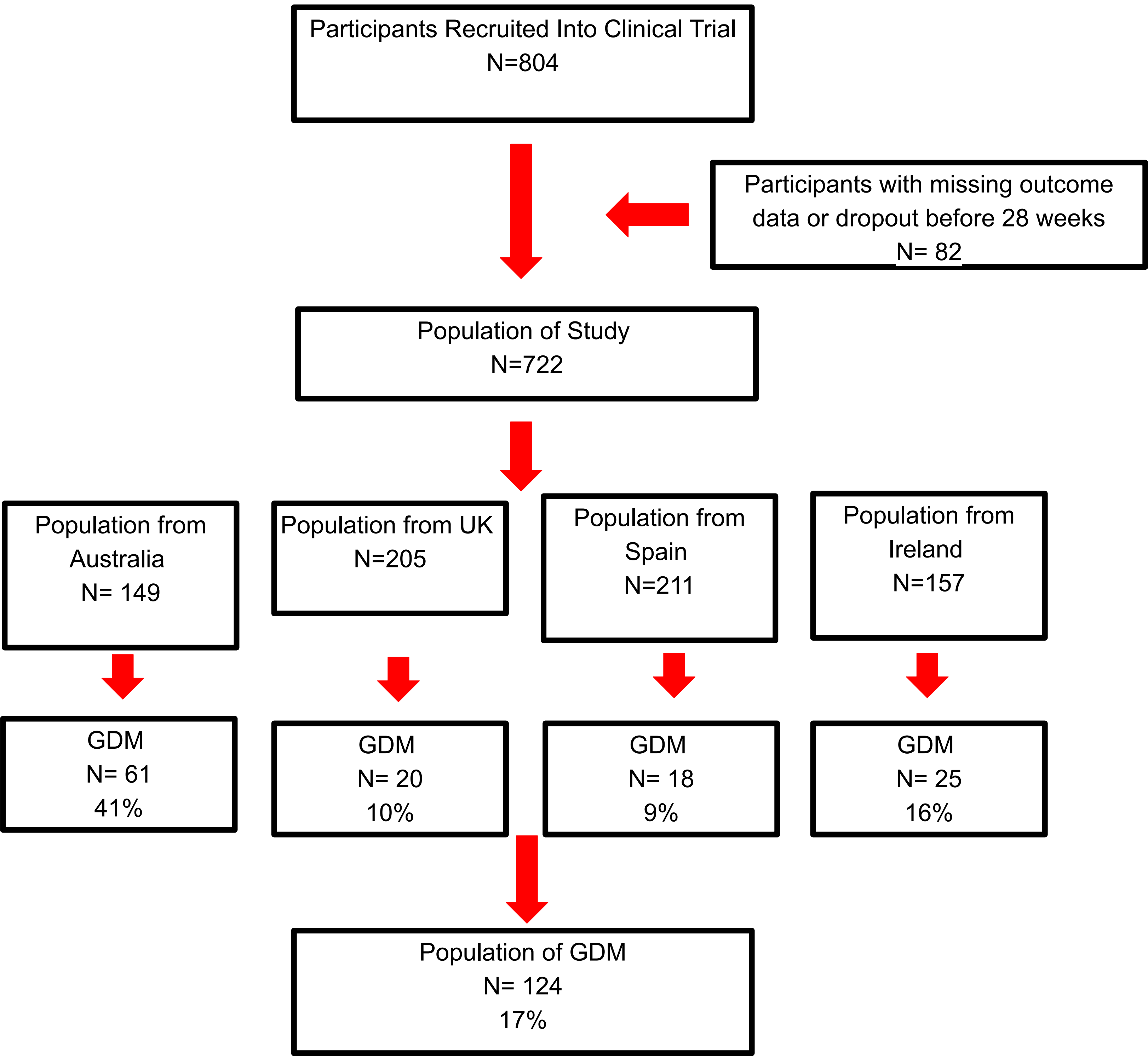
Design

Retrospective cohort study
Secondary analysis of ‘Impact Diabetes Bump2Baby and Me’ clinical trial
Settings: Australia, Ireland, Spain and the UK⁸
Population: Pregnant women from ~12 weeks' gestation to two years postpartum.
GDM: Positive OGTT between 24-28 weeks using The International Association of Diabetes and Pregnancy Study Groups criteria⁹

Demographics	Medical History	Lifestyle Factors	Pregnancy Related Characteristics	Clinical Results
Age	BMI	Sleep	Previous stillbirth	Cholesterol
Ethnicity	PCOS	Exercise	Baby >4.5kg	LDL
Employment Status	Previous GDM	Smoking status	Parity	HDL
Education Level	Family History of T2DM	Folic acid use		Bilirubin
				HbA1c
				Triglycerides
				Fetal 20 week abdominal circumference

Table 1: Characteristics Assessed with Relationship with GDM

Methods



Results

Risk Factor	Number of women (%)	Hazard Risk Ratio	P-value	CI
BMI>30	461/722 (29.9)	2.414	0.000	1.814-3.213
FH T2DM	264/722 (21.2)	1.391	0.027	1.038-1.864
Previous GDM	44/722 (56.8)	2.232	0.000	1.603- 3.106
Educational Level	490/722 (16.4)	0.649	0.007	0.474-0.889
Triglycerides ≥ 1.7mmol/L	476/722 (21.6)	1.672	0.025	1.066-2.625
Age >35	461/722 (12.8)	0.912	0.560	0.671-1.242

Table 2: Results from Multivariable Regression

Sensitivity: 86%
Specificity: 45%

Limitations

Small sample size
Study population pre-selected as high-risk using the Monash GDM Screening Tool⁷
Differences between study and general populations e.g. age, employment, education
Missing data, despite use of multiple imputation
Clinical trial involved health management interventions

Conclusion

Additional risk factors of GDM currently outside of the NICE guidance
Highlights the need for combined clinical, biochemical, and sociodemographic stratification in GDM screening
Larger study to stratify universal vs selective screening

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