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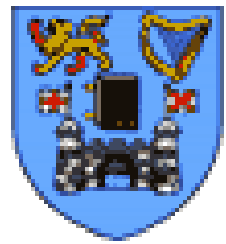
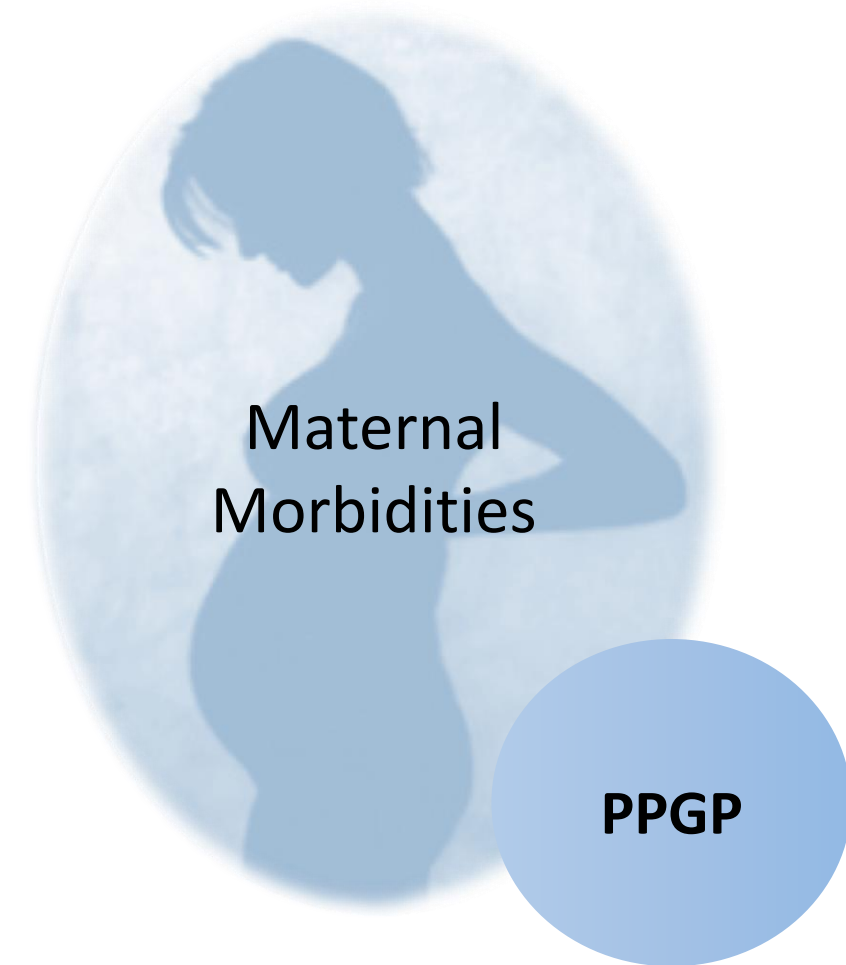
Pelvic Girdle Pain during pregnancy and the **psychological wellbeing** of primiparous women in Ireland

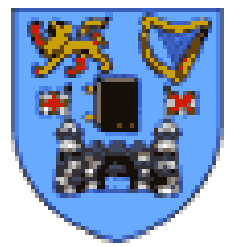
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Context

- Pregnancy-related Pelvic Girdle Pain (PPGP) is **very common**, affecting approximately a third of pregnant women daily (Albert et al. 2001).
- Pregnancy is a time of great change especially for primiparous women – **Transition to motherhood**.
- Multi-factorial nature of **pain** – intimate relationship between pain & psychological wellbeing.





Aim/objectives

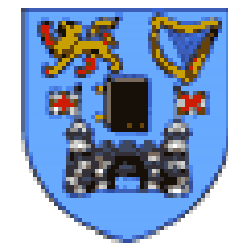
Aim

To identify the **prevalence** of, and changes in, pelvic girdle pain experienced by primiparous women **before** and **in early pregnancy** in one large maternity hospital in Ireland.

Objectives

1. To determine the **prevalence** of self-reported PGP before and in early pregnancy
2. To examine any **associations** between self-reported PGP and depression, anxiety and/or stress during pregnancy
3. To explore the **predictive ability** of a history of depression and anxiety in the development of PGP during pregnancy

Methodology



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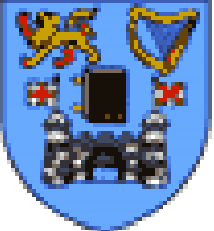
MAMMI (Maternal health And Maternal Morbidity in Ireland) study
Longitudinal cohort study
Ethical approval of university and site hospital

Data Collection

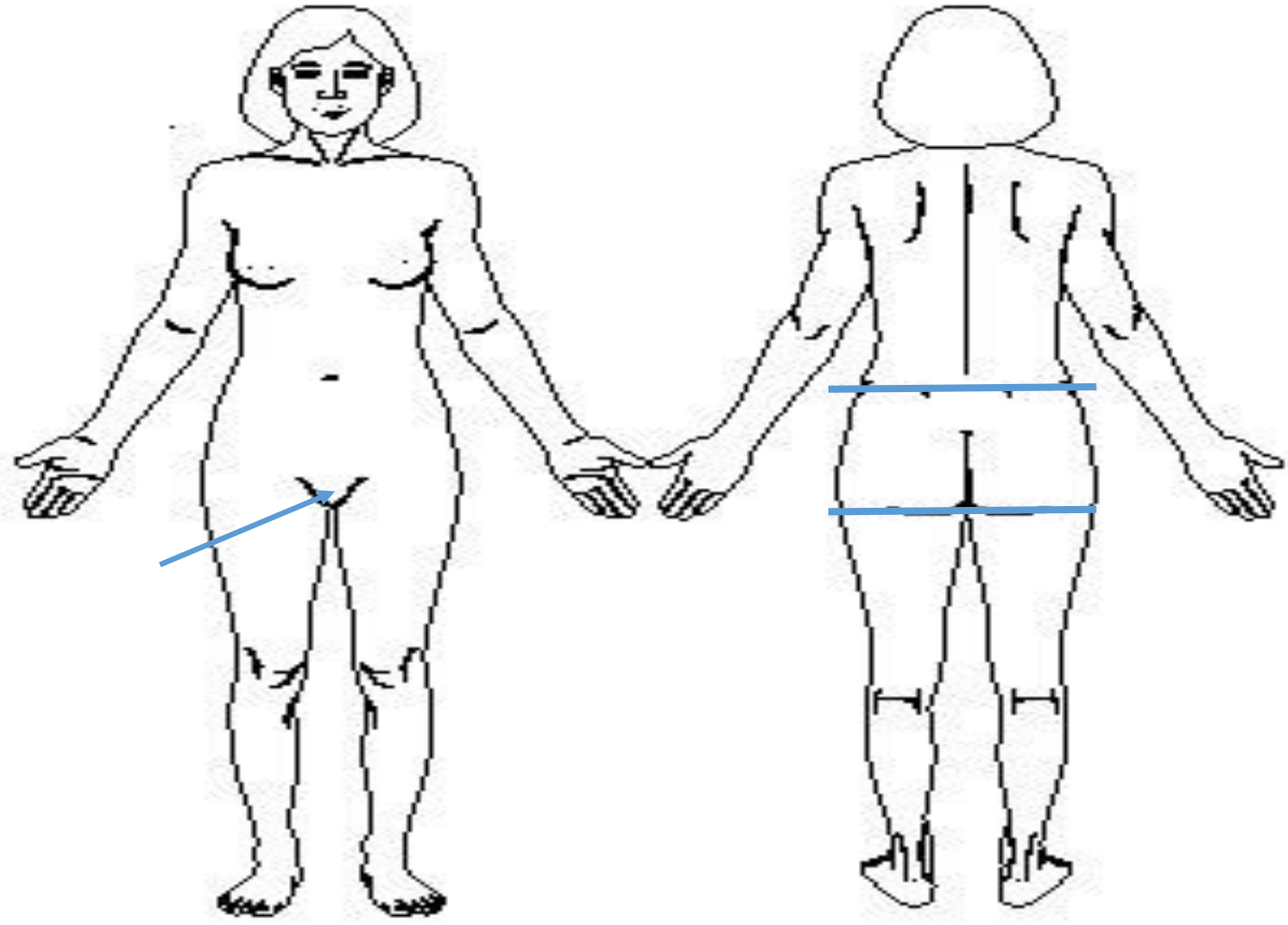
- Self-completed surveys
- 1092 primiparous participants

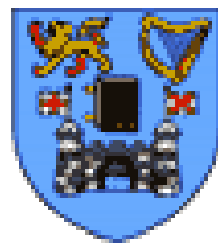
Data Analysis

- Descriptive statistics
- Correlational statistics (Mann Whitney U test & Logistic Regression)



Data Collection – Self-reported Pain

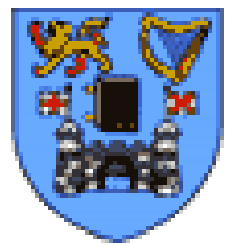




Data Collection – Psychological wellbeing

- **Depression, anxiety & stress during pregnancy**
→ DASS 21 (Henry et al. 2005)
- **History of Depression and anxiety**
→ 4 point frequency scale:
 - Feeling depressed, low mood or sad (lasting 2 weeks or more).
 - Intense anxiety.

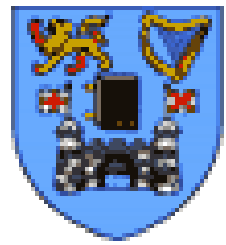
DASS		Name:	Date:
Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you <i>over the past week</i> . There are no right or wrong answers. Do not spend too much time on any statement.			
The rating scale is as follows:			
0 Did not apply to me at all			
1 Applied to me to some degree, or some of the time			
2 Applied to me to a considerable degree, or a good part of time			
3 Applied to me very much, or most of the time			
1	I found myself getting upset by quite trivial things	0	1 2 3
2	I was aware of dryness of my mouth	0	1 2 3
3	I couldn't seem to experience any positive feeling at all	0	1 2 3
4	I experienced breathing difficulty (eg, excessively rapid breathing, <input type="checkbox"/> breathlessness in the absence of physical exertion)	0	1 2 3
5	I just couldn't seem to get going	0	1 2 3
6	I tended to over-react to situations	0	1 2 3
7	I had a feeling of shakiness (eg, legs going to give way)	0	1 2 3
8	I found it difficult to relax	0	1 2 3
9	I found myself in situations that made me so anxious I was most <input type="checkbox"/> relieved when they ended	0	1 2 3
10	I felt that I had nothing to look forward to	0	1 2 3
11	I found myself getting upset rather easily	0	1 2 3
12	I felt that I was using a lot of nervous energy	0	1 2 3
13	I felt sad and depressed	0	1 2 3
14	I found myself getting impatient when I was delayed in any way <input type="checkbox"/> (eg, lifts, traffic lights, being kept waiting)	0	1 2 3
15	I had a feeling of faintness	0	1 2 3
16	I felt that I had lost interest in just about everything	0	1 2 3
17	I felt I wasn't worth much as a person	0	1 2 3
18	I felt that I was rather touchy	0	1 2 3
19	I perspired noticeably (eg, hands sweaty) in the absence of high <input type="checkbox"/> temperatures or physical exertion	0	1 2 3
20	I felt scared without any good reason	0	1 2 3
21	I felt that life wasn't worthwhile	0	1 2 3
Common assessment measures: DASS		Page 2	



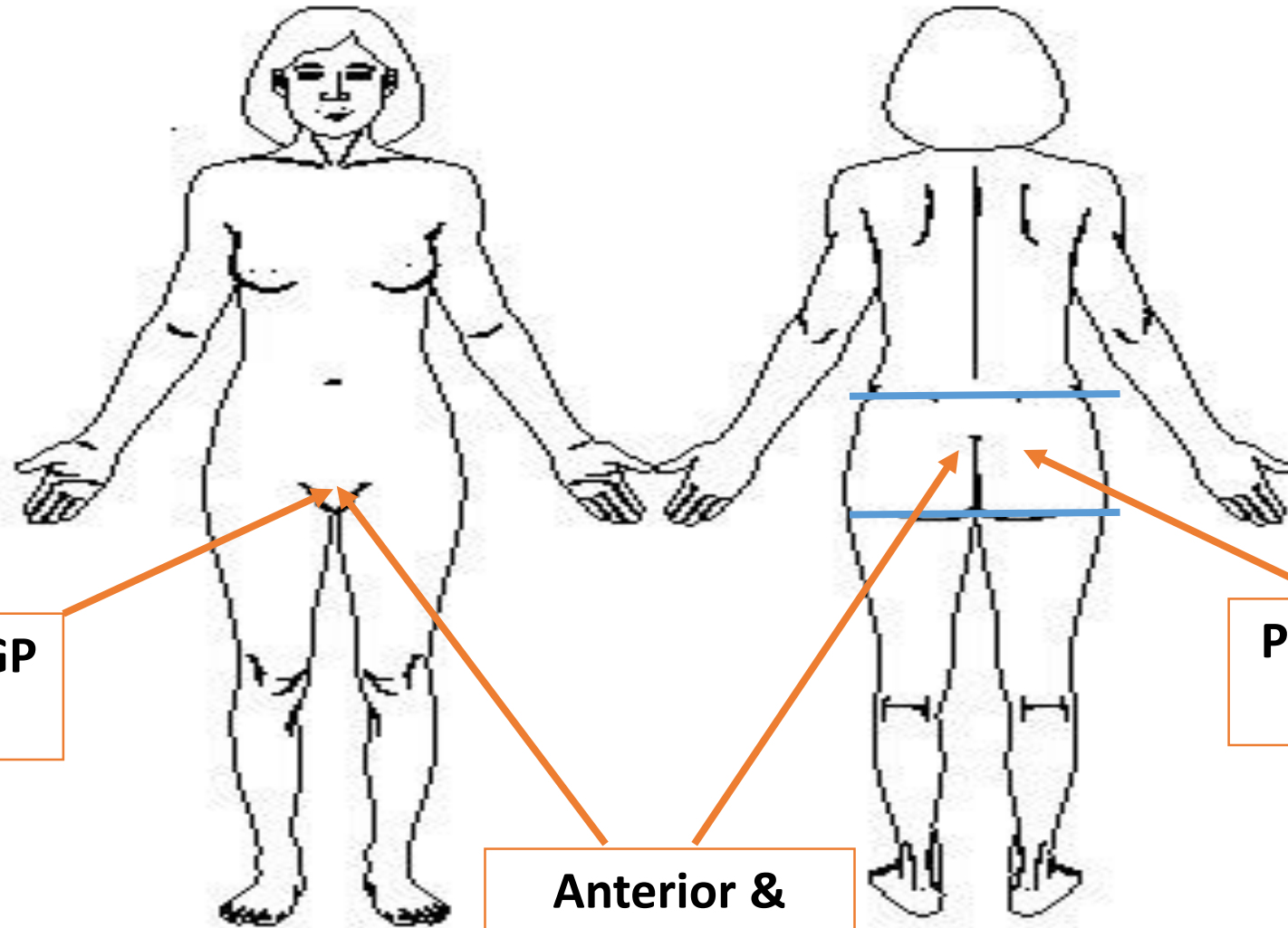
Participant characteristics

Age	MAMMI (%) (n = 1092)	Hospital (%) (n = 3928)
Up to 24	8.4	22.2
25-29	25.4	26.2
30-34	41.4	33.3
35-39	21.3	14.7
Over 40	3.5	3.6
Country of birth	MAMMI (%) (n = 1078)	Hospital (%) (n = 8846)
Ireland	65.3	64.4
Other European country	27.3	22.0
Non-European country	7.4	13.4

Pelvic Girdle Pain prevalence during pregnancy



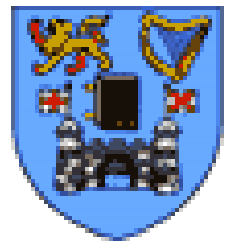
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Anterior PGP
10.5%

**Anterior &
Posterior PGP**
8.2%

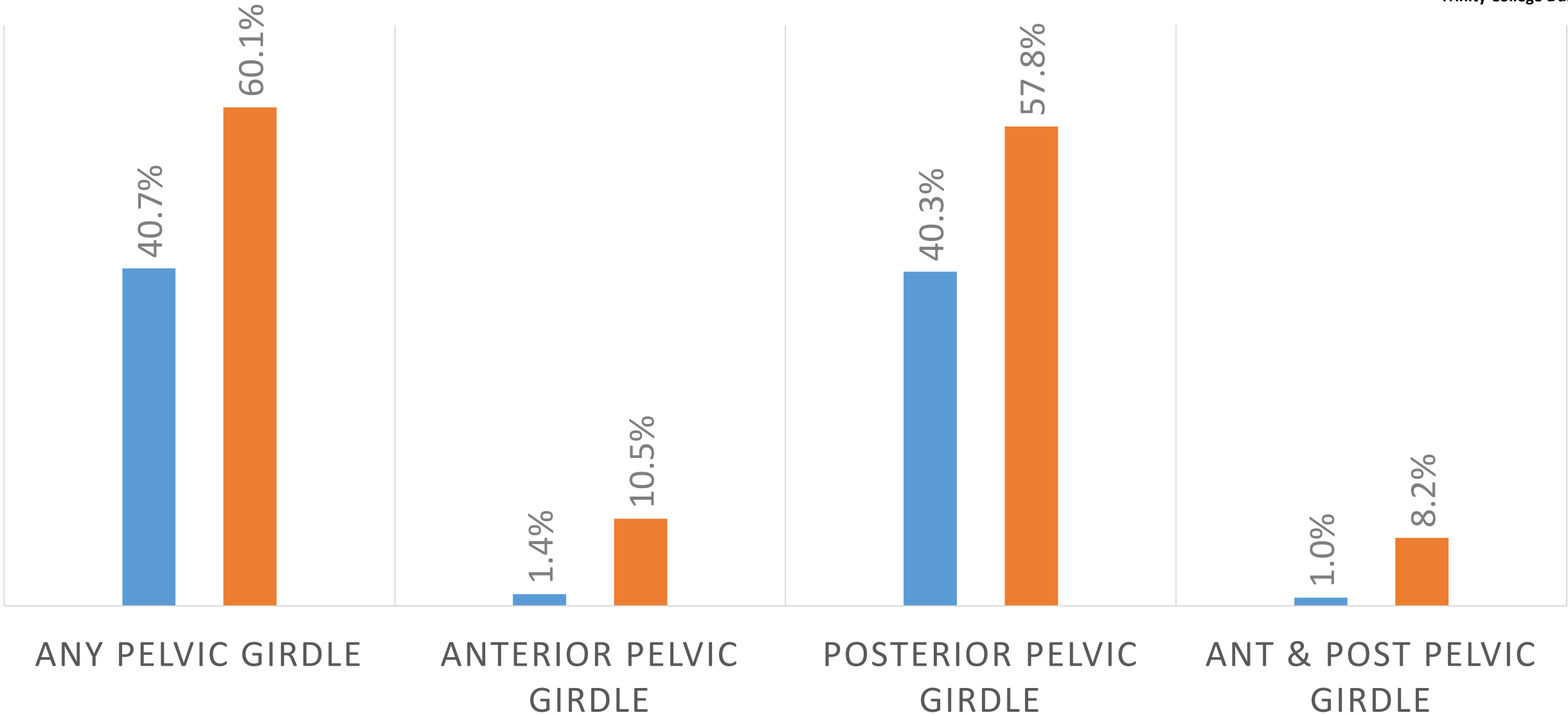
Posterior PGP
57.8%



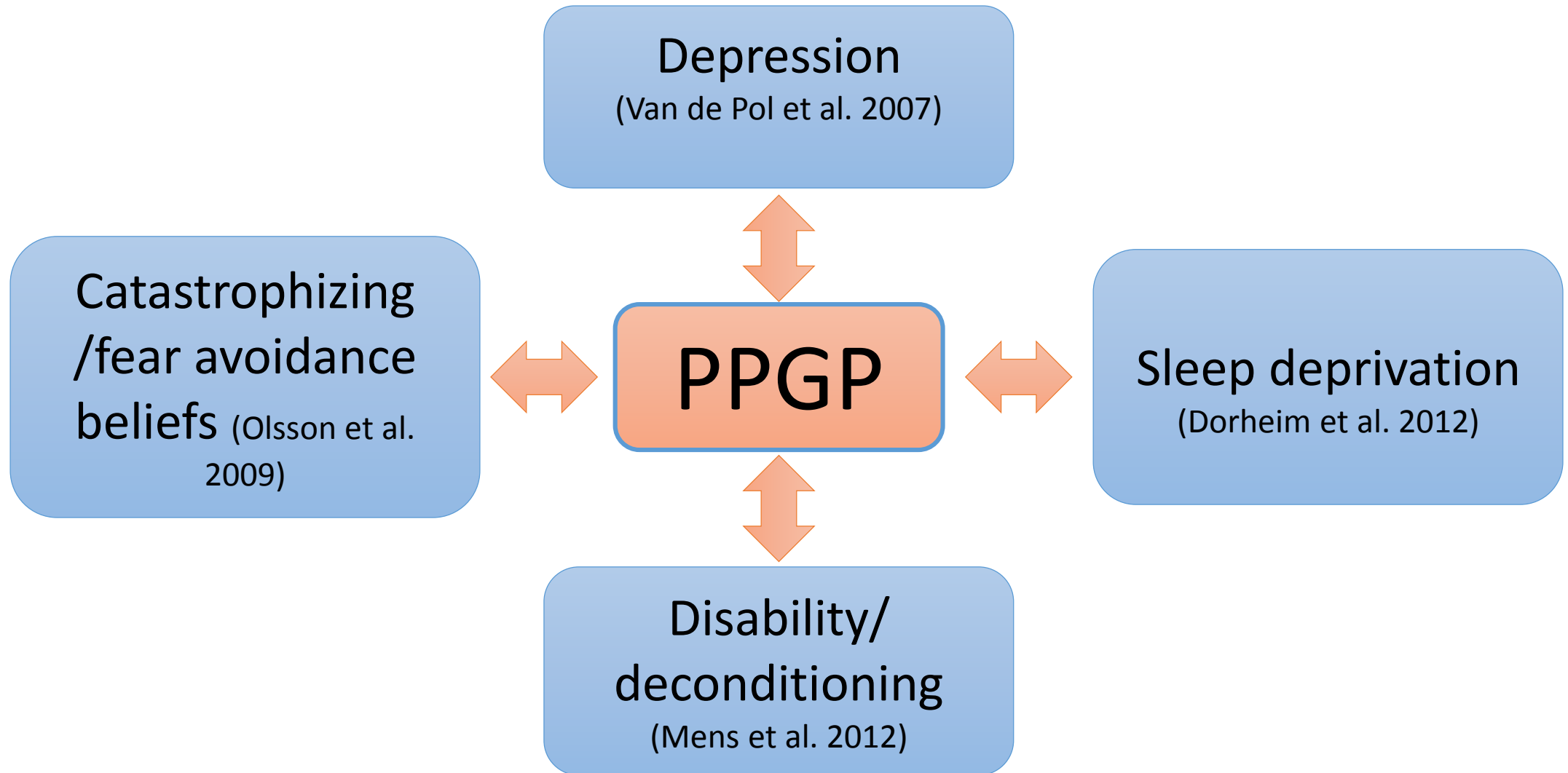
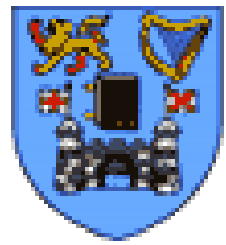
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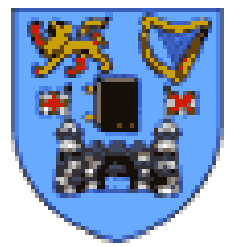
SELF-REPORTED PELVIC GIRDLE PAIN

■ Year Before Pregnancy ■ In early pregnancy



Complexity of PPGP

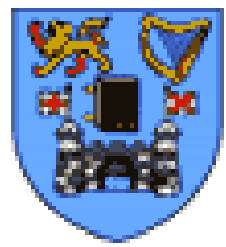




PGP & Depression, Anxiety, Stress during pregnancy

- Depression, Anxiety & Stress measured by the DASS 21 scale
- Mann Whitney U test

	Any Pain	PGP
Depression	$p=0.002$	$P=0.001$
Anxiety	$p<0.0001$	$p<0.0001$
Stress	$p=0.005$	$p=0.021$

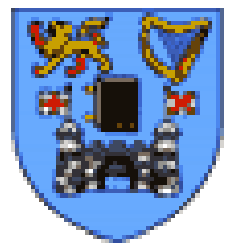


History of Depression/Anxiety & PPGP

	OR (95% CI, p-value)	Adjusted OR (95% CI, p-value)*
History of Depression	1.5 (1.2-2) P=0.002	1.5 (1.04-2.16) P=0.032
History of Anxiety	1.5 (1.1-2) P=0.013	1.3 (0.85-1.93) P=0.23

*Adjusted for PGP and/or low back pain before pregnancy and pre-pregnancy BMI

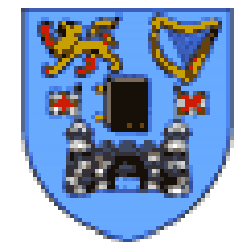
*Bonferroni correction $P \leq 0.05/2$ statistical significance level.



Clinical Relevance

- PGP is **very common** during pregnancy.
- PGP is related to **anxiety, depression & stress** during pregnancy.
- **In clinical practice:** Assessment of the pain & psychological well-being to direct **management** and reduce risk of chronicity.
- Further research to explore the interrelations between PGP and other maternal morbidities during pregnancy and postpartum.



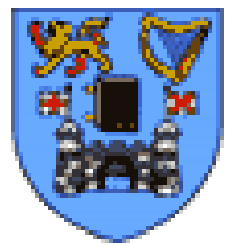


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Acknowledgments

- Women who participated in the study
- Prof Mike Clarke
- MAMMI study team
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- Rotunda Hospital
- Health Research Board Ireland





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