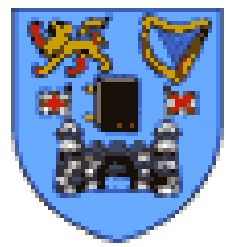


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Pelvic girdle pain in primiparous women in Ireland before and in early pregnancy

Trinity College Dublin

Wuytack F., Daly D., Curtis E., Begley C.

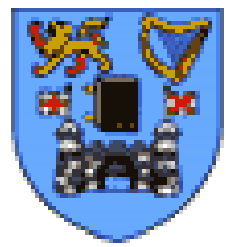


Background - Pregnancy-related Pelvic Girdle Pain (PPGP)

Terminology

- PPGP = Pain experienced between the posterior iliac crest and the gluteal fold, particularly near the SIJ. Pain may radiate in the posterior thigh and can also occur with or separately in the pubic symphysis. (Vleeming et al. 2008)





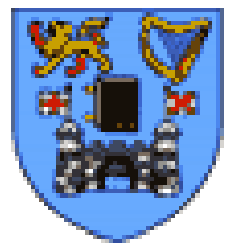
Background - Pregnancy-related Pelvic Girdle Pain (PPGP)

Aetiology – unknown

- Hormonal – relaxin?
(Aldabe et al. 2012a)
- Biomechanical – shift centre of gravity, increased load, pelvic instability
(Aldabe et al. 2012b)

Diagnosis

- History
- Physical examination
 - Exclude lumbar causes
- Rarely: lab tests/imaging
- No diagnostic criteria but Guidelines
 - European guidelines (Vleeming et al. 2008)
 - HSE National guidelines (2012)



Aim/objectives

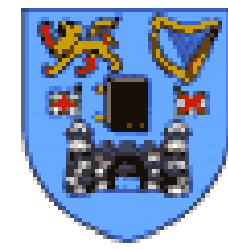
Aim

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

Objectives

1. To identify the prevalence of PGP pre-pregnancy and in early pregnancy
2. To compare self-reported PPGP versus PPGP reported in hospital records
3. To identify potential predictive factors for PPGP

Methodology



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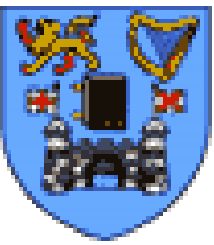
MAMMI (Maternal health And Maternal Morbidity in Ireland) study
Longitudinal cohort study
Ethical approval of university and site hospital

Data Collection

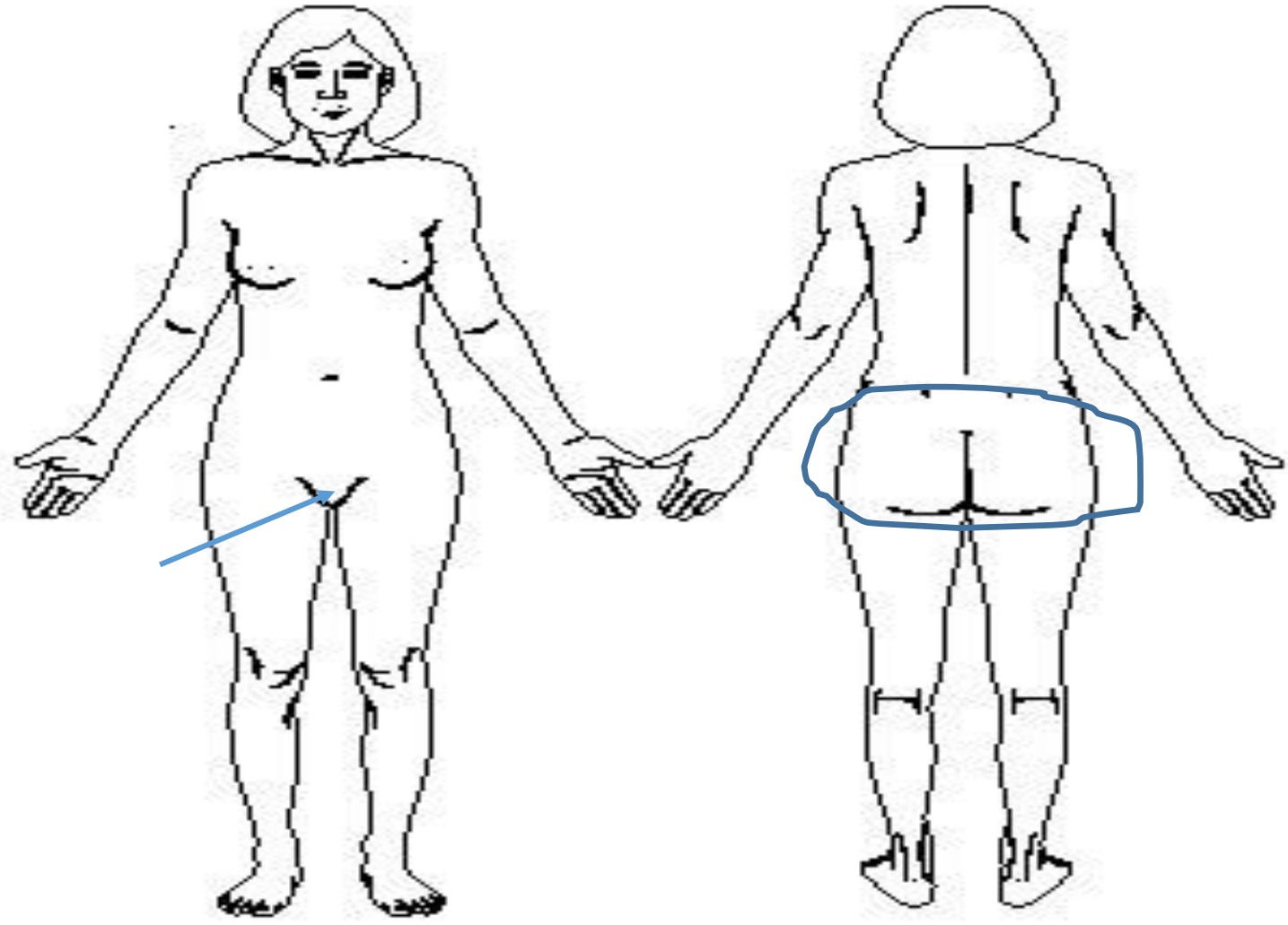
- Self-completed surveys
- Data collection from maternity records
 - 831 participants

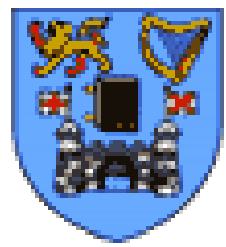
Data Analysis

- Descriptive statistics
- Chi-square statistics



Data Collection – Self-reported Pain

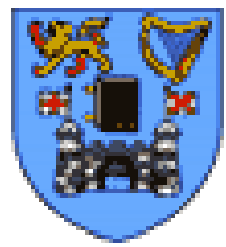




Participant characteristics

Age	Percentage (n = 846)
Up to 24	9.3
25-29	23.5
30-34	41.8
35-39	21.9
Over 40	3.4

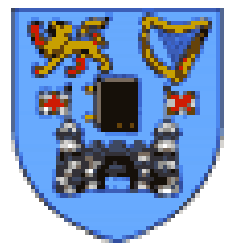
Country of birth	Percentage (n = 838)
Ireland	63.2
Other European country	27
Non-European country	9.8



Prevalence

Self-reported pain	Year Before Pregnancy (n=831)	In early pregnancy (=831)
Pelvic Girdle	38%	58.5%
Anterior Pelvic Girdle	1.4%	10.5%
Posterior Pelvic Girdle	37.7%	55.6%
Ant & Post Pelvic Girdle	1%	7.5%

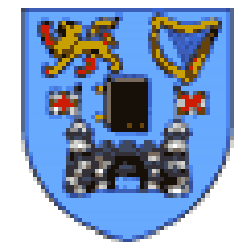
Prevalence – MAMMI study vs previous literature



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Self-reported pain (MAMMI study)	In early pregnancy (=831)
Pelvic Girdle	58.5%
Anterior Pelvic Girdle	10.5%
Posterior Pelvic Girdle	55.6%
Ant & Post Pelvic Girdle	7.5%

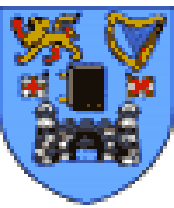
- **Point prevalence** PPGP of approximately 20% (Vleeming et al. 2008)
- **4-week prevalence** of PPGP 64.7% in a cohort of 1158 Spanish women between 31-38 weeks pregnant (Kovacs et al. 2012)
- Prevalence **self-reported** PPGP (without LBP) of 40% (Al-Sayegh et al. 2012)



Self-reported PPGP versus Recorded PPGP

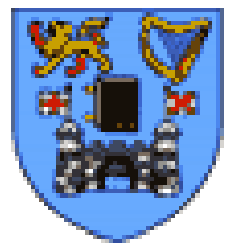
Self-Reported PPGP (n = 831)	Recorded PPGP (n = 563)
58.5%	4.4%

Chi-square analysis



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Independent Variables	Pearson Chi-Square	Significance
History of PPGP	155.557	0.000
History of back pain	53.703	0.000
History of headaches	6.889	0.009
History of depression	7.543	0.006
History of anxiety	2.581	1.08
History of eating disorder	1.736	0.188
History of back surgery	0.000	1.000
History of back injury	4.045	0.044
History of period pains	5.388	0.020
BMI (3 categories)	3.353	0.187



Factors associated with PPGP

Factors associated with self-reported PPGP (MAMMI study)

History of PPGP

History of back pain

History of headaches

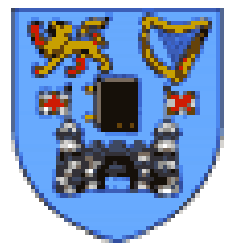
History of depression

History of back injury

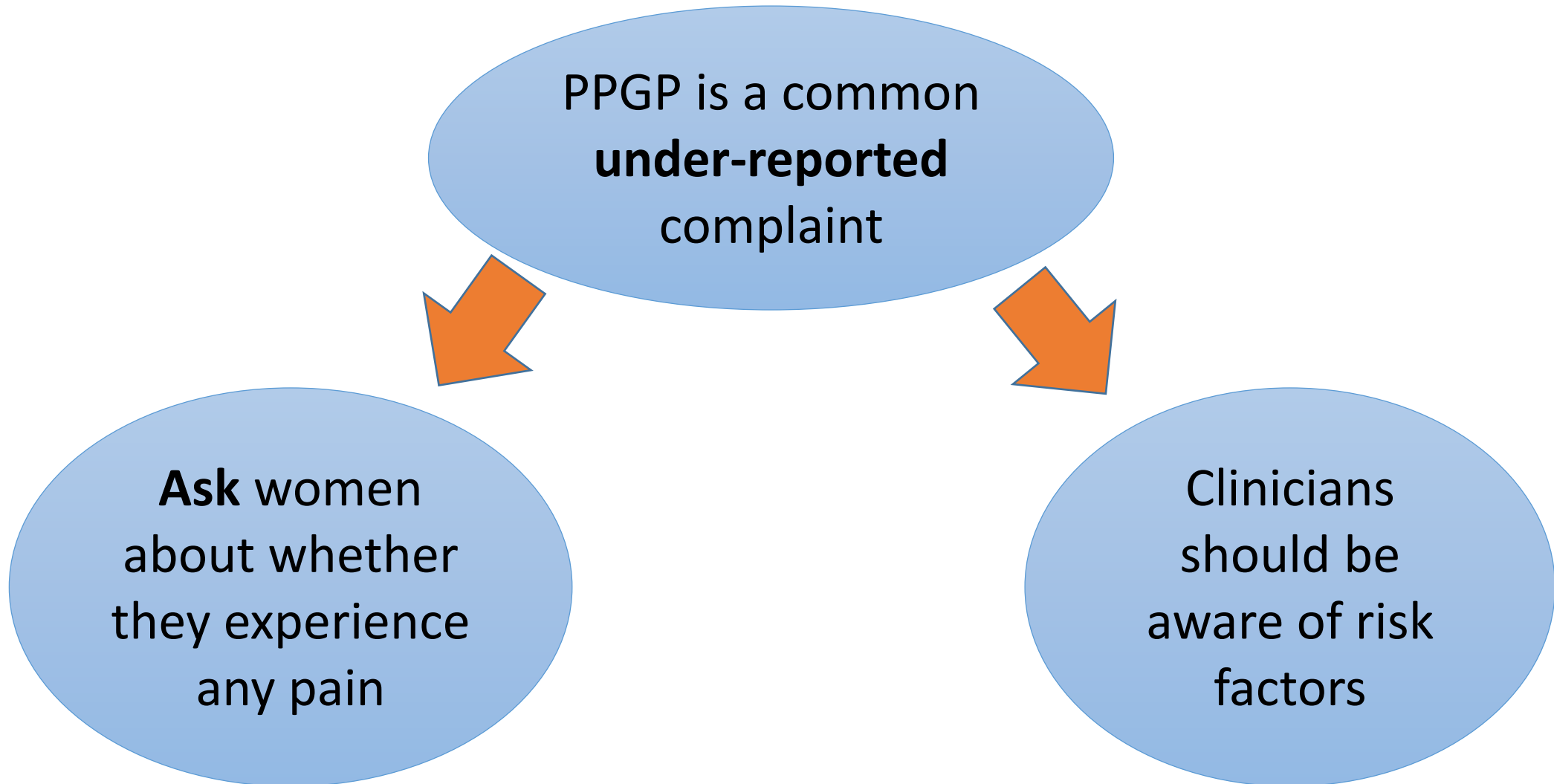
History of period pains

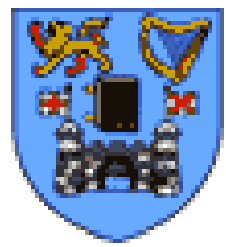
Associated factors in literature:

- (Albert et al. 2006): **history of LBP**, trauma to back/pelvis, higher stress levels, multiparae, job dissatisfaction
- (Kovacs et al. 2012): depression, a higher body mass index, and a more advanced stage of pregnancy
- (Bakker et al. 2013) examining psychological determinants: perceived stress and recent psychological distress, but not anxiety or coping
- (Mogren 2005): Physical activity before pregnancy reduces risk



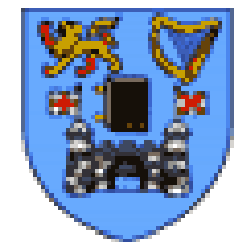
Implications for practice





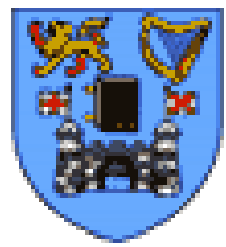
Limitations

- The pre-pregnancy data were collected retrospectively
- No physical examination; only self-reported PPGP
 - ➔ Possible overlap with lumbar pain



Acknowledgments

- The women who participated in the study
- Principal Investigators Prof Cecily Begley and Prof Mike Clarke
- MAMMI study team
- The midwives and midwifery students who distributed the information
- Rotunda Hospital
- Health Research Board



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