



SCREENING FOR ANXIETY IN BC: IS THE EPDS ENOUGH?

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WHY STUDY PERINATAL ANXIETY?

- ▶ Prenatal, maternal anxiety is associated with negative outcomes
- ▶ Postpartum anxiety → impact on parenting
- ▶ Perinatal anxiety disorders are more common than depression!
- ▶ Anxiety disorders are:
 - ▶ Highly distressing
 - ▶ Impairing to functioning (work, family...)
- ▶ Perinatal anxiety is a neglected area
- ▶ Safe, effective treatments (e.g., CBT) exist

PRENATAL ANXIETY & STRESS

ANIMAL STUDIES

- ▶ Primarily experimental
- ▶ Long term -ve effect on
 - ▶ Attention
 - ▶ Learning
 - ▶ Behaviour
- ▶ Motor development
- ▶ Reduced birth weight
- ▶ ↗ anxious responding

HUMAN STUDIES

- ▶ Primarily correlational
- ▶ Ethical constraints
- ▶ Obstetrical complications
 - ▶ Length of labour
 - ▶ Preterm labour
 - ▶ Reduced birth weight
- ▶ Effects on offspring
 - ▶ ADHD
 - ▶ Poorer language abilities
 - ▶ ↗ emotional reactivity
 - ▶ Mental health problems

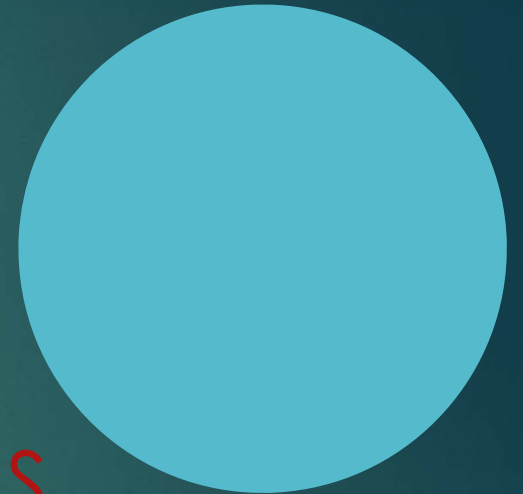
POSTPARTUM ANXIETY

- ▶ Infants/children
 - ▶ Behavioural inhibition
 - ▶ Insecure attachment
 - ▶ Impaired adaptability
 - ▶ Negative mood
 - ▶ Soothing difficulty
- ▶ Mothers
 - ▶ Interact and communicate less skillfully with their infants





ANXIETY & RELATED DISORDERS



IMPACT OF ANXIETY DISORDERS

- ▶ Significant impairment in functioning
- ▶ High level of health care service utilization
- ▶ High level of direct health care costs
- ▶ Diminished work capacity



PREVALENCE

ANXIETY DISORDERS

- ▶ Most prevalent of all psychiatric conditions
- ▶ Lifetime: 28.8%
- ▶ One-year: 18.1%
- ▶ Almost twice (1.6) as common among women

MOOD DISORDERS

- ▶ Lifetime: 20.8%
- ▶ One-year: 9.5%
- ▶ Postpartum depression
 - ▶ 19.2% (Major & Minor Depression)
 - ▶ 7.1% (Major Depression only)



PERINATAL PREVALENCE & INCIDENCE

DISORDER		PREVALENCE	INCIDENCE
Anxiety	PREGNANCY	12.1 < 16.3 < 20.4	1.7 < 3.9 < 6.1
	POSTPARTUM	12.8 < 17.0 < 21.2	0.4 < 1.9 < 3.2
Depression	PREGNANCY	1.5 < 3.6 < 5.7	1.1 < 3.0 < 4.9
	POSTPARTUM	2.2 < 4.5 < 6.8	0.7 < 2.4 < 4.1

The above data represents 95% confidence intervals for proportions



SCREENING FOR PERINATAL ANXIETY DISORDERS



SCREENING FOR ANXIETY: THE EPDS

EPDS-3A ITEMS

- ▶ I have blamed my self unnecessarily when things went wrong
- ▶ I have been anxious or worried for no good reason
- ▶ I have felt scared or panicky for no very good reason

VALIDITY

	EPDS-3A	
Cut-Score	6	
Sensitivity	67%	63%
Specificity	88%	70%
PPV	32%	45%
NPV	97%	81%

SCREENING FOR ANXIETY: OTHER APPROACHES

- ▶ Other self-report screening tools for perinatal anxiety and related disorders have been assessed
- ▶ Few have been adequately assessed, and most perform poorly
- ▶ The most carefully assessed and most promising is the State Trait Anxiety Inventory (STAI)

	PREG	PREG	PP
Cut score	40	40	34
Sensitivity	81%	66%	71%
Specificity	80%	67%	67%
PPV	52%	38%	26%
NPV	94%	86%	93%



PERINATAL ANXIETY & RELATED DISORDER PREVALENCE & INCIDENCE STUDY



RATIONALE



- ▶ Current policy in BC = Screening for depression
- ▶ Anxiety and related disorders are more common than depression
- ▶ Anxiety & related disorders are not screened for
- ▶ Using the EPDS to screen for anxiety would be the LOWEST *cost* and *effort* solution

OBJECTIVE & METHODS

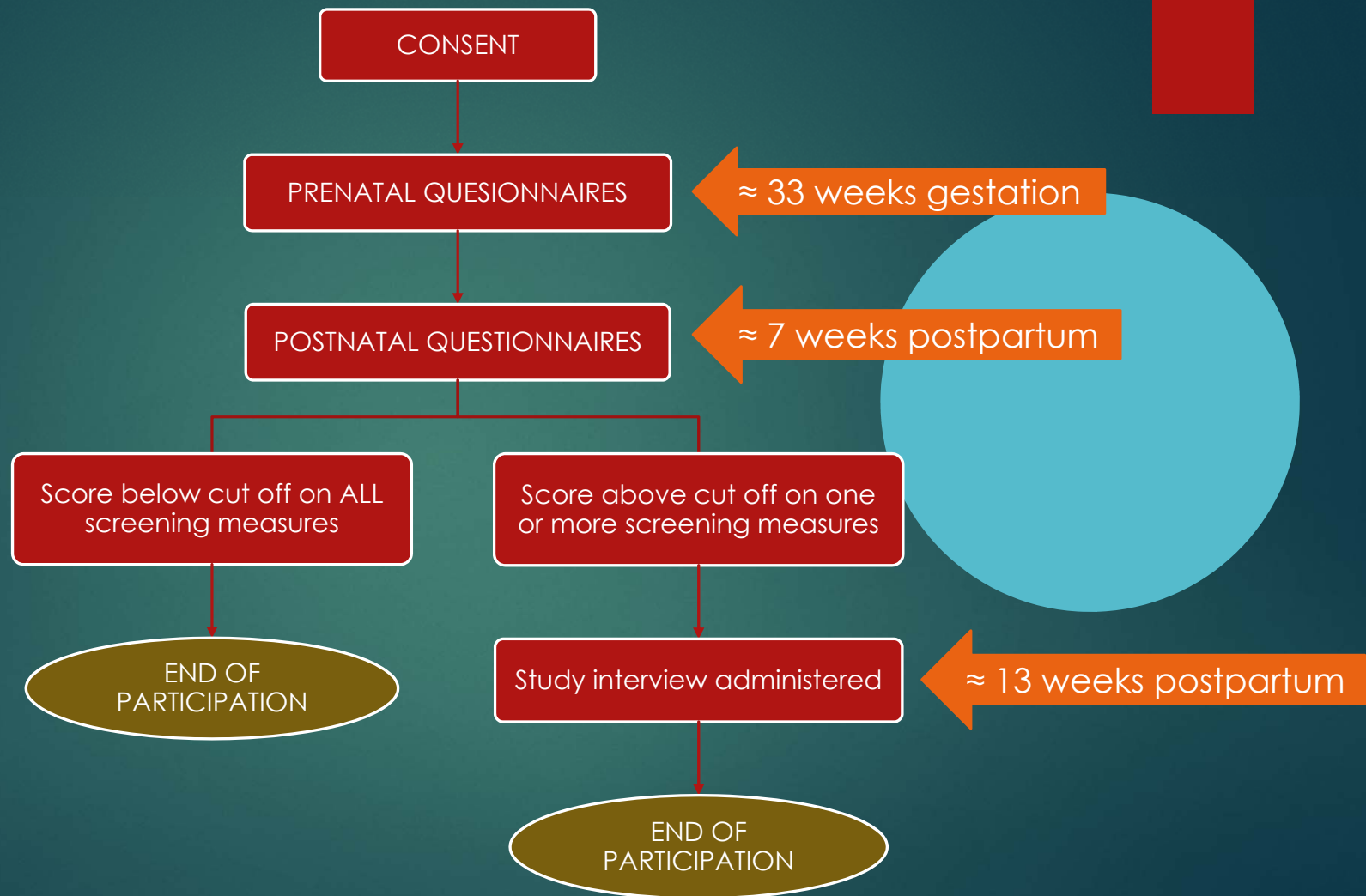
OBJECTIVE

1. Assess the capacity of the EPDS to function as a screening tool for perinatal anxiety and related disorders
2. Compare the full EPDS to a 2 and 3 – item EPDS derived measure as screening tools for perinatal anxiety and related disorders

INCLUSION/EXCLUSION

- ▶ Resident of the city of Vancouver at the time of recruitment
- ▶ Functionally fluent in English

STUDY PROCEDURES



ASSESSMENT MEASURES

QUESTIONNAIRES

- ▶ Each of the primary anxiety disorders
- ▶ Obsessive compulsive disorder
- ▶ Posttraumatic stress disorder
- ▶ Acute stress disorder
- ▶ Depression

INTERVIEW

- ▶ Structured Clinical Interview for DSM (SCID)
- ▶ DSM-IV
- ▶ Interviewers trained to criterion
- ▶ 13-weeks postpartum
- ▶ In person

PARTICIPANTS

VARIABLE	STATISTIC
N	310
AGE	33.2 (6.2) years
WEEKS' GESTATION	27.3 (8.5) weeks
MARITAL STATUS	96% Married or Common Law
RACE	91% Caucasian or Asian
POST-SECONDARY	5.5 (3.1) years
INCOME	75% > \$60,000
EXPECTING FIRST BABY	64.7%
SINGLETON PREGNANCY	94.3%



SCREENING FOR ANXIETY WITH THE EPDS



	FULL EPDS	EPDS-3A
Accuracy	65%	64%
Cut-score	5.5	3.0
Sensitivity	68%	78%
Specificity	64%	61%
PPV	27%	29%
NPV	91%	93%



ANXIETY SCREENING TOOL

- ▶ Discriminant function analysis for item selection
 - ▶ 10-item scale
 - ▶ 7-item scale
- ▶ ROC curve analysis to assess sensitivity and specificity
- ▶ Replication in the prenatal sample

7-ITEM SCALE	POSTPARTUM	PREGNANCY
Accuracy	72%	62%
Cut-score	4.0	4.0
Sensitivity	84%	69%
Specificity	70%	72%
PPV	34%	34%
NPV	96%	92%

7-ITEM ANXIETY SCREENING SCALE



1. ...not being able to stop or control worrying
2. I get upset if objects are not arranged properly
3. I find it difficult to touch an object when I know it has been touched by strangers or by certain people
4. Heart palpitations bother me when I am around people
5. I am afraid of doing things when people might be watching
6. Being embarrassed or looking stupid are among my worst fears
7. Being "superalert" or watchful or on guard?

CONCLUSIONS

- ▶ Anxiety disorders should be screened for among pregnant and postpartum women
- ▶ The EPDS functions poorly as a screening tool for perinatal anxiety disorders
- ▶ The new, 7-item screening tool may prove to be a valid tool



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