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Introduction

- > Concealed or denied pregnancy may occur in childbearing women of all ages and parity, either single or in a partnered relationship
- It is of concern because of the risk to the fetus and newborn as well as the mother's health with late or no presentation for antenatal care ^{1,2}
- In some cases, newborns may be abandoned or killed. There are a variety of underlying factors (psychiatric and sociological) leading to concealment or denial of pregnancy³

Definitions

Concealment of pregnancy occurs when the woman knows she is pregnant but actively conceals it from her partner, family and friends ^{4,5}

Denial of pregnancy - can be organised into 3 categories

- 1. Affective Denial there is an intellectual awareness of the pregnancy but no emotional or physical preparations are made for the infant's arrival
- 2. Pervasive Denial existence of pregnancy is kept from the woman's own awareness
- 3. Psychotic Denial the woman is suffering from a psychotic illness and tends to deny her pregnancy in delusional ways ⁶

Undetected - the pregnancy, when discovered, is a complete surprise to the woman and those providing her care (usually not associated with psychological or mental health issues)

Infanticide commonly refers to the killing of an infant within the first 24 hours of birth³

Incidence

There are no known Australian statistics on its incidence and incidences documented elsewhere vary largely. Rates in Europe (Britain and Germany) have been estimated as 1 in 2,500 births ^{1,7.} You may access all guidelines by registering on the website (top left hand corner under 'about us') using your preferred username and password. Thereafter, log on when you go onto the website and you will automatically gain access to all restricted guidelines. Hatters-Friedman et al. (2007) from the USA rated concealment of pregnancy as 1 in 1,750 births with denial until the time of birth being three times more frequent^{4,5}



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Risk Factors

- Adolescent girls were traditionally thought to be most likely to deny or conceal³, but recent studies found women to be predominantly in their early to mid-twenties and multiparous^{1,4,5}
- Denial of pregnancy is not bound by race, ethnicity or social class (Spinelli 2003)⁸. However, there are various familial and sociocultural situations that enhance denial of pregnancy (e.g. fear of ostracism in some social groups, pressures for termination). Social isolation is strongly associated with most known cases of pervasive denial^{1,2}
- > Women with poor intelligence or minimal knowledge of reproductive anatomy and physiology are at increased risk of denying / concealing a pregnancy^{8,9}. However, high achieving women with above average intelligence may also conceal or deny pregnancy^{3,8}
- Undetected pregnancy may occur in women who are peri-menopausal, have irregular periods, are using contraception, are obese or who have minimal weight gain. These women may have presented to medical services but their pregnant condition has been overlooked²
- Women with a history of neonatal loss are at risk of affective denial (by distancing themselves from the pregnancy). Some women who have a history of infants being removed from their care may conceal their pregnancy to avoid the same situation occurring again^{1,4,5}
- > Psychiatric disorders, such as schizophrenia⁹, and depression³, have been reported to contribute to denial and concealment of pregnancy

Pregnancy symptoms - misinterpreted

- > Pregnancy and labour symptoms are often attributed to other causes (see table 1 below)
- Women with pervasive denial may have fewer and less obvious physical symptoms of pregnancy, such as marked obesity or minimal weight gain, no nausea and menstrual like bleeding^{2,4,5,9}
- Labour often takes women by surprise and it is not unusual for these women to present to hospital with severe abdominal and back pain, or the need to empty their bowels
- > Feelings of dissociation are usually present at delivery
- Case studies report that women with mental health issues, especially dissociation, experienced minimal pain in labour and often gave birth without assistance²



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Table 1: Denial of signs and symptoms of pregnancy

Pregnancy signs and symptoms	Alternative explanations	
Nausea and vomiting	> Indigestion	
	> Anxiety	
	> Medical illness like 'flu'	
Amenorrhea	> Seen in very active, athletic women	
	> Eating disorders affect menstruation	
	> Not attentive to timing of menses	
	 Early in menarche, teens may have anovulatory periods with long intervals between them 	
Fatigue	> Lack of sleep	
	> Anxiety	
	> Feeling depressed	
Weight gain	> Poor dietary habits	
	> Not exercising	
	> Gain not apparent if fetal growth restriction	
	> Gain not apparent because of restrictive or	
	oversized clothing	
Fetal movements	> Gas	
	> Hunger related peristalsis	
Breast tenderness	> Premenstrual changes	
	> Breast injury	
Uterine growth	> Abdominal growth from weight gain	

Adapted from Vallone DC & Hoffman LM. Preventing the tragedy of neonaticide. Holistic Nursing Practice 2003; 17: 223-28

Infanticide

- > Denial is a substantial risk factor for abandonment and infanticide²
- An Australian study investigating 32 maternal filicide cases found all three killings of newborn infants (within first 24 hours of life) to be characterised by total denial of pregnancy and birth rather than a motivation to kill the infant¹⁰
- The more serious the state of denial, the more at risk the fetus is of neonaticide³
- Women in severe denial are often in a state of shock and emotional dissociation at the time of delivery
- > The most common cause of death in newborns related to denial of pregnancy is through drowning after birth into the toilet^{3, 8}. A fracture to the neonate's head can occur if the mother delivers in a crouching position or by standing up with no assistance. Mothers who have actively contributed to their newborns death are often in dissociative or near dissociative states and usually have difficulty recalling the details of the event and make minimal to no effort to hide their actions^{3,8}



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Management

Antepartum

- > Early identification in pregnancy provides increased opportunity to prevent complications, however concealment or denial of pregnancy may prevent this
- Antenatal clinic staff need to be aware of normal emotional reactions to pregnancy versus those that are compromised as well as women who may be at increased risk for this condition of pregnancy³
- All women who book late (> 20 weeks of gestation) should complete the Edinburgh Postnatal Depression Scale (EPDS) and psychosocial risk questionnaire (Questionnaires should only be used by appropriately trained staff) at antenatal booking (for further information, refer to the PPG 'screening for perinatal anxiety and depression)
- > Assess the need for referral to any other services e.g. Social Worker, Mental Health liaison, Psychiatric review, Case discussion meeting, Obstetric Consultant, GP
 - Where possible, arrange ongoing care with a service that provides continuity of carer e.g. midwives clinic, high risk pregnancy service, obstetrician, GP, midwifery continuity of carer models, whichever is most appropriate.

Intrapartum

- Treat as high risk if the first hospital presentation is in labour
 - May have little or no antenatal care or medical history
 - Obtain detailed history (either from the woman or support person if present)
- Estimate fetal gestation and presentation (abdominal palpation, portable or formal ultrasound)
- > Where possible, and depending on timing of presentation, obtain the following:
 - Booking bloods
 - > High and low vaginal swabs (including for Group B streptococcus)
 - MSSU and urine toxicology
- Risks at this time include precipitous labour, undiagnosed pregnancy complications and unknown fetal gestation
- Ensure paediatrician is present at time of birth
 - Neonatal septic workup
 - > Monitor baby for withdrawals
- Social Work Involvement is likely to be beneficial and may include:
 - > Counselling regarding keeping baby or consider adoption
 - Assessment of home situation, support and practical help regarding parenting skills and other routine family maintenance
- Consider the need for a high risk infant notification to Families SA (CARL on 131478)



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Postpartum

- > Offer mental health review (consider if any other psychiatric co-morbidities)
- > Parenting assessments should be made by midwifery and other relevant staff in a supportive manner every shift in the postnatal period, observing and documenting the quality of mother's interaction with her baby referrals to provide support with mother-infant interaction may be appropriate (Staff at Helen Mayo House on 0883031451 may be able to provide information on referral sources) (for further information refer to the PPG 'assessing parent infant relationship')
- > Family Planning it should be a mandatory part of pre-discharge planning that these women are offered sex education and advice on birth control options

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Useful resources

About a Girl, 2001, Short Film, B Percival (director), UK. (Google "About a Girl" to purchase. View entirety on U tube. Type in "About a Girl, short film")

Concealed, 2009, Short Film. A Kitsch in Synch Production, MRC, Adelaide, S.A. (Available from Birth International website at URL:

https://www.birthinternational.com/products/concealed-dvd-1

Web link to short preview - teaching pamphlet with discussion points enclosed in DVD when purchased)

Abbreviations

NIMHE	National Institute for Mental Health in England		
BPD	Borderline personality disorder		
APA	American Psychiatric Association		
EPDS	Edinburgh Postnatal Depression Scale		
GP	General Practitioner		
DBT	Dialectical behaviour therapy		
MBT	Mentalisation based therapy (treatment)		
NHS	National Health Service		
WHO	World Health Organisation		
UK	United Kingdom		
BC	British Columbia		
NICE	National Institute for Health and Clinical Excellence		
URL	Uniform Resource Locator		

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