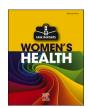
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# Invited Editorial

# Cryptic pregnancy

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Cryptic pregnancy, also known as pregnancy denial, occurs when the pregnant person is unaware of their pregnant state and discovers this late in pregnancy or when labour starts. Although, historically, the term 'concealed pregnancy' has been used synonymously, in a concealed pregnancy the patient is fully aware of their pregnancy but chooses to hide it from their family and the public. Described as early as the 17th century, a population study carried out over 1 year in Berlin reported the incidence of pregnancy denial as 1 in 475 pregnancies at 20 weeks and 1 in nearly 2500 pregnancies at term, similar to the incidence of eclampsia [1] and equivalent to 1600 surprise births in the USA and 325 in the UK every year. Such births can make for dramatic headlines [2], sensationalist TV programmes (4 seasons of "I Didn't Know I Was Pregnant" started in 2009) and surprise events in your A&E department or ER [3].

Cryptic pregnancies can be divided into psychotic or non-psychotic types and the non-psychotic types can be divided further into affective, pervasive or persistent [4]. The psychotic type is associated with a psychotic disorder and is much less common. In affective denial, the patient intellectually acknowledges the pregnancy, but cannot declare the pregnancy. In pervasive and persistent denial, the expectant person doesn't know that they are pregnant. There is no weight gain or morning sickness. Periods may or may not stop, and no one recognizes the pregnancy. A dissociative episode may occur at delivery, especially in rare cases occurring with abandonment of the newborn or neonaticide. Kenner and Nicholson [5] report how, in many cases, pregnancy denial is associated with either significant early-life trauma or trauma at conception such as rape, assault or incest.

Concerns with cryptic pregnancies include late or non-existent antenatal care resulting in non-detection of pre-eclampsia, SGA babies and other pregnancy problems that would benefit from interventions, continuance of unwanted behaviours in pregnancy such as smoking, alcohol and drug use, and the possible dangers of unassisted delivery alone [6]. This is aside from the psychological consequences of a surprise birth with possible impaired parent/child interactions and infant development and rare instances of neonaticide [7-9].

Is there a typical presentation of cryptic pregnancy? In one of the largest, prospective, case control studies in this area, Delong et al. [10]

published a study of 71 mother/infant dyads with pregnancy denial after 20 weeks of pregnancy and compared them with 71 temporal and parity matched dyads to try and determine pertinent risk factors. At least ten of the cases did not discover their pregnancy until labour started. Cases were more likely to be younger (24 years vs 30 years), less well educated, single or not with the father of the pregnancy at birth, lower down the career ladder and more likely to have a psychiatric history, especially of major depressive order or persistent depressive disorder. Cases had more previous pregnancy denials and more pregnancy denials in the family. There were no differences between the groups with regard to BMI before pregnancy, parity, gestational age at delivery, obstetric history or past medical/surgical history. 75% of case pregnancies occurred whilst using contraception (with 75% using oral contraceptives) compared with 7% in the control group. There was less change in weight and breast size in the cryptic pregnancies and 86% of cases continued to have periods compared with 4.5% of controls. Cases also perceived less fetal movement during the pregnancy. Interestingly, of the 126 newborns that had analysable data, only the median pregnancy term (38 vs 39 weeks) and median height (49 vs 50.5 cm) of the newborns were significantly different.

Management will depend on gestation at diagnosis. However, given that a small proportion of cryptic pregnancies can be associated with neonaticide or a co-existing psychiatric disorder, patients presenting in late pregnancy or labour should be evaluated by a psychiatrist whilst still in hospital, although most people will go on to take full responsibility for their babies. It has been suggested that psychiatric referral in these pregnancies is under-requested or not made at all [8].

With a clinical picture known for so long, it is surprising how little objective information on prediction, management and the possible consequences is available. There are no official guidelines on how to manage the condition and care for those involved in the long term. The psychological and developmental impact of pregnancy denial on children and mothers is still unknown. Despite Delong's study, people who deny pregnancy are, in general, a heterogeneous group and health care professionals should have a low threshold for thinking of and testing for pregnancy in people of reproductive age with symptoms compatible

with pregnancy such as nausea, weight gain or abdominal symptoms, with or without amenorrhoea. It is worth noting that in one cohort study, 38% of patients had visited their doctor during the pregnancy without receiving a pregnancy diagnosis [11]. It has been pointed out that without a DSM or ICD code for this condition, research and comparisons are difficult [11]. The absence of consistent diagnostic recognition and terminology for cryptic pregnancies or pregnancy denial has led to a lack of awareness. Such obliviousness continues to put patients and their babies at risk.

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