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Concealed Pregnancy in the 21st Century

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Abstract

Aims

Concealed pregnancies occur in Western society with no definitive Irish rates. Concealed pregnancy appears to encompass cases of babies born before arrival to hospital or 'unbooked' pregnancies. [1,2] The aim was to gain understanding of concealed pregnancies presenting to the Rotunda Hospital. The objectives included identifying the number of concealed pregnancies between 2007 and 2018, identifying patient demographics, quantification of delivery modes and identifying maternal and neonatal outcomes.

Methods

This was a retrospective paper and electronic chart review of 31 cases of concealed pregnancy.

Results

The average age was 24 years. Twenty cases (64.5%) involved Irish women. Over half the mothers were primiparous. There were five cases (16%) of postpartum haemorrhage. There was one stillbirth (3.2%) at 36 weeks' gestation. The gestational ages at delivery ranged from 23+5 to greater than 42 weeks. Twenty-five percent of babies (n=8) were admitted to NICU. Twenty-nine percent of babies (n=9) were discharged to foster homes.

Conclusion

As our population becomes more dynamic and multicultural, it is important to identify concealment and the associated morbidity. By shining a light on this medical and social issue, it may help to reduce prevalence and improve management.

Introduction

There is limited research regarding concealment of pregnancy, both nationally and internationally. Concealment of pregnancy triggers a historical image for most individuals[1] however a brief review shows that concealed pregnancies are still very much occurring in modern western society.

International studies are small in number and only one dedicated study regarding concealed pregnancy in Ireland has been conducted.[1] Concealed pregnancy as a phenomenon 'in the absence of neonaticide and psychiatric disorders' has barely been examined.[1] There are limited sources of information in Ireland with most information previously garnered from annual reports of individual maternity units and their figures for 'concealed pregnancy'. This term appears to encompass either babies born before or on arrival to hospital or 'unbooked' pregnancies.[1, 2]

The importance of an accurate definition of concealed pregnancy should not be underestimated in both clinical practice and research. The varying degrees of concealment and denial need to be assessed and examined in order to understand trends. This will allow better detection of pregnancy concealment as well as management and the reduction of poor maternal and neonatal outcomes.

There are various types of concealment reported in the literature. Conlon cites three typologies to aid definitions regarding concealment. The first is 'unconscious denial' whereby a woman has no conscious awareness of the pregnancy for the majority of or even up to a sudden unexpected delivery. 'Conscious denial' refers to recognition of the pregnancy by the woman but continued denial to herself and others. In essence she is cognitively aware of the pregnancy but refusing to engage with it on an emotional level. Finally 'concealment of pregnancy' refers to a woman acknowledging the pregnancy but hiding it from others and not presenting for antenatal care until at least twenty weeks gestation, sometimes up to the time of delivery and sometimes not presenting at all.[1] Given the limited information regarding reasons for and levels of concealment in the cohort of cases assessed in this study, the third typology was adapted as a broad definition.

Given the limited evidence and research we have regarding concealed pregnancy in Ireland it is difficult to identify the prevalence of it. Conlon cited annual reports from 1995 to 2003 and found that the National Maternity Hospital (NMH) was the only maternity unit regularly reporting figures for concealed pregnancy as an aspect of their Medical Social Work report.[1] In 1995, 7 concealed pregnancies were reported in NMH (1/946 births), this number rose to 18 in 1997 (1/420), 24 in 1998 (1/326). These figures are in line with the idea that concealed pregnancy is very much still happening. From an international perspective, German authors Wessel, Endrikat and Buscher (2003) have produced the only comprehensive study regarding concealed pregnancy with an estimation that one in every 475 German births are concealed.[3, 4,5] In terms of the United States, there appears to be no data regarding the prevalence of concealed pregnancy.[6]

Alongside the perception that concealment of pregnancy is a thing of the past, the presumption that those who conceal their pregnancies are young teenagers often on the fringes of society is wrong. Women who conceal their pregnancies come from all walks of life, social and educational classes regardless of age or marital status.[7,8,9,10,11] There is significant and complicated emotional distress and trauma associated with concealment of pregnancy.[1, 12] The repeated action of pregnancy concealment appears to be a common trend with Thynne et al. (2012) reporting that seven of nine women concealed their pregnancy more than once.[12]

The reasons for concealment are varied and not limited to domestic violence, poverty, rape, psychiatric illness and incest.[7, 8,13,14] Conlon (2006) reported that combined efforts between family and friends to conceal pregnancy do exist. Two Irish studies by Conlon (2006) and Thynne et al. (2012) highlight common themes including fear of reactions from parents and pre-marital pregnancy stigma. [1, 12,7]

It can be reasonably deduced that maternal and neonatal outcomes from concealed pregnancies are poorer than those involved in antenatal care. Given the lack of research regarding these it is hard to quantify or place any value on how poor these outcomes truly are. Risks and outcomes of concealed pregnancy include little or no antenatal care, precipitous deliveries, incorrect approximation of gestational age, maternal death, psychological distress, post-partum issues including poor bonding, lack of detection of fetal anomalies, increased risk of prematurity and lower birth weight, neonatal unit admission, birth injuries and increased rates of perinatal mortality and adoption.[7] This study looked at various aspects of maternal and neonatal outcomes including post-partum haemorrhage, sepsis, postnatal depression, NICU admission, length of hospital stay and place of discharge.

The aim of this project was to gain better understanding and knowledge of concealed pregnancies presenting to a tertiary maternity unit. The objectives included identifying the number of concealed pregnancies attending the Rotunda Hospital between 2007 and 2018, identifying the demographics of these patients, assessment of the hospital's management of concealed pregnancies and quantification of modes of delivery of concealed pregnancies. In addition, the identification of adverse maternal and neonatal outcomes in concealed pregnancies was an important objective for this study.

Methods

Study Design

This was a retrospective chart review of concealed pregnancies presenting to the Rotunda Hospital between 2007 and 2018.

Study Participants

Cases of concealed pregnancy identified by the hospital Social Work department between 2007 and 2018 were included. HIPE recording of 'concealed pregnancy' was inaccurate and was not employed as a tool.

Study Protocol

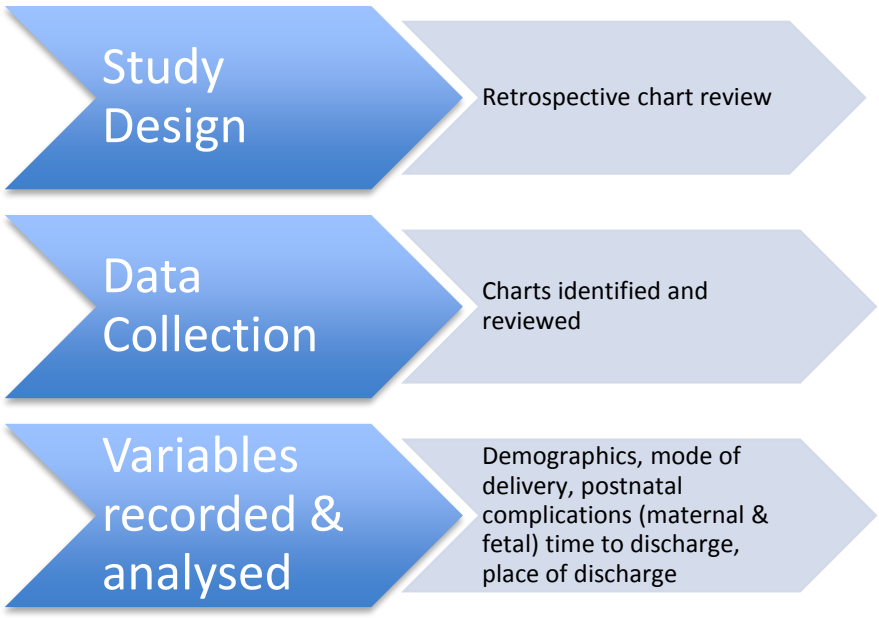

Figure 1. Study design

Procedures

Paper and electronic charts (year dependent) were reviewed for data collection.

Study Measures

Variables examined included demographic information, mode of delivery, postnatal complications e.g. postpartum hemorrhage, neonatal complications e.g. NICU admission, length of stay (maternal and neonatal), place of discharge (maternal and neonatal).

Data analysis

All data was collected and compiled into a Microsoft Excel spreadsheet. SPSS statistical package was then utilised to extract demographic information and basic statistical information.

Results

Thirty-one cases of concealed pregnancy were examined.

Demographics

The average age was 24 years, with an age range of 15-38. Twenty cases (64.5%) involved Irish women with Poland, Nigeria and Georgia represented amongst the non- Irish cases. There was one case of homelessness reported and one case involving a mother with a significant learning disability. Documentation of marital status was poor, however over a third reported either a stable relationship or marriage. Over half the mothers were primiparous. Among the multiparous group the highest parity was 8.

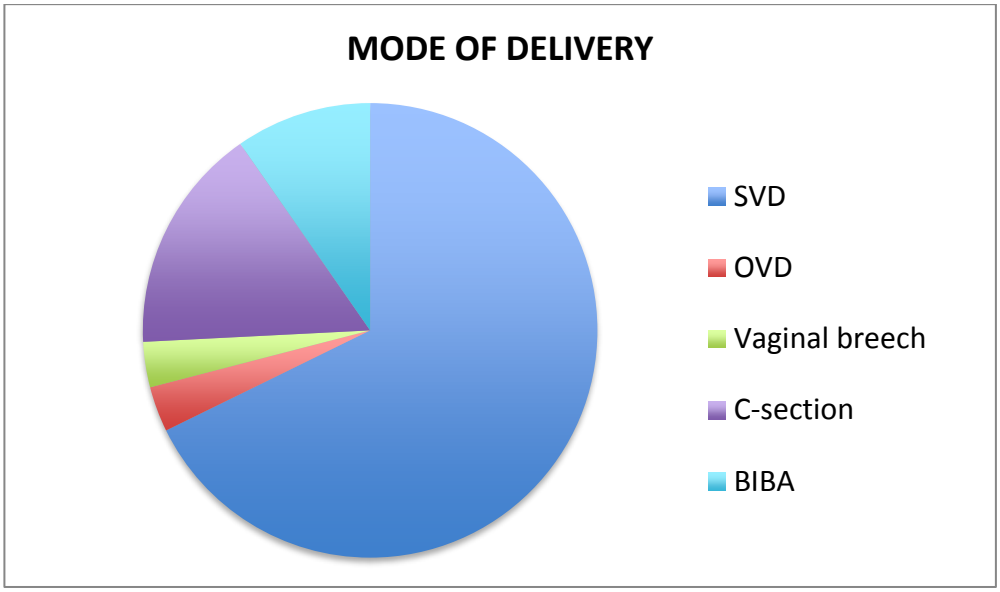

Figure 2. Mode of delivery

Postnatal outcomes

There were five cases of postpartum haemorrhage and no case of sepsis or reported postnatal psychosis. The Edinburgh Postnatal Depression Scale scores ranged from -3 to 13. There was evidence of poor documentation of these scores in the earlier years of the cases reviewed. The range of results was reassuring, with only one mother giving a score of thirteen which would warrant further management.

Discharge outcomes

Time to discharge for mothers ranged between one and five days. Over half of mothers were discharged home to either their own home or that of a family member. Two women were discharged to a women's refuge.

There was one stillbirth reported at 36 weeks' gestation. The gestational ages at delivery ranged from 23+5 to greater than 42 weeks however in some cases this was an estimation, as there was poor documentation around menstrual dates or lack of ultrasound confirmation.

There were 8 pre-term deliveries between 30 and 36+5 weeks' gestation with the rest classed as term deliveries. A further two pre-term deliveries occurred before 30 weeks' gestation, 24 and 23+5 weeks respectively.

Twenty-five percent of babies were admitted to the NICU with the length of stay ranging between 1 day and 13 weeks. Twenty-nine percent of babies were discharged to foster homes with the remainder discharged to their mother's home, some with extra family and social supports.

Discussion

The demographics of these cases reveal that women who conceal their pregnancies may be older than the media and historical experience would lead us to believe. Interestingly 64.5% of the mothers were Irish, highlighting the social issues faced by both Irish women and foreign nationals.

Mode of delivery was in line with trends for pregnancies with full antenatal care with the majority as spontaneous vaginal delivery. Most deliveries occurred after 37 weeks' gestation; however these were often approximations rather than definite confirmed gestations. There were ten pre-term deliveries in total, two under 30 weeks' gestation, and eight between 30 and 36+5 weeks' gestation. This is a high number of preterm deliveries, further consolidated by the length of time some babies spent in the neonatal unit. The remainder were classed as term deliveries.

The adverse maternal outcomes were fewer than expected but were still significant with 16% of mothers experiencing postpartum haemorrhage. Reassuringly there were no cases of sepsis. Although there were no documented cases of postnatal psychosis, often psychiatric issues either do not re-present to maternity units or they are under-reported. The Edinburgh Postnatal Scale was used but poor documentation in earlier years was evident. The range of results was reassuring with only one mother giving a score of thirteen, which would warrant further management.

Neonatal outcomes were generally good with 75% not requiring NICU admission. However, of those admitted to NICU, protracted length of stay was evident and would warrant further investigation. Although specific neonatal morbidities were not assessed, the duration of time spent would suggest some babies experienced a more difficult medical course than others. Twenty-nine percent of babies were discharged to care that was not that of their mother's. However, it is important to note that this may have been temporary in some scenarios or even a safer, better choice for them.

The strengths of this study included the thorough collection of various aspects of obstetric, postnatal and neonatal outcomes. A broad overview of concealed pregnancy and its impact on both mother and baby was achieved. The study involved a multi-disciplinary approach with input from the social work department being integral to the collection of data. The study provides a good platform for further work in an area that remains under-researched and poorly understood from medical, public health and social perspectives.

The limitations of the study are reflected in the numbers of cases examined. By obtaining greater numbers of cases we can understand concealment of pregnancy in a much more comprehensive way. There were aspects of the study that were omitted; some of the data collection was scant due to poor record-keeping and documentation in medical records. However, as was evident in the more recent cases on electronic charts, the electronic health record should allow for more thorough examination of more variables in future work.

By understanding concealment of pregnancy better, both clinical work and research can be improved to serve these women. In terms of future research, this study provides important general information about concealed pregnancy. It provides a stepping-stone for work in various aspects of concealed pregnancy including identifying reasons why it happens, maternal and neonatal outcomes, as well service provision and clinical training for staff members. Crisis pregnancy services can be enhanced based on improved demographic information as well as trends in behaviour amongst cases of concealed pregnancies. From a clinical perspective all healthcare staff can benefit from understanding concealed pregnancy. Gaining an appreciation of staff opinions and experiences of caring for women during concealed pregnancy would allow better staff training and more informed clinical care to be delivered by Irish hospitals. By doing so, clinical care and maternal and paediatric outcomes can be improved. Examples of this include 'understanding the attributes of concealed pregnancy' in order to help clinicians risk identify women who may conceal a pregnancy. [7]

Concealed pregnancy is both a medical and a social issue, with our patient populations becoming more dynamic and multicultural. It is important to identify concealed pregnancy, its trends and the associated significant morbidity. By shining a light on this issue, it may help to reduce the prevalence and improve management of these cases.

Declaration of Conflicts of Interest:
The authors declare that there are no conflicts of interest.

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