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Born into care: One thousand mothers in care proceedings in Wales

A focus on maternal mental health

Focus

This paper highlights the findings of analysis by the Family Justice Data Partnership—a collaboration between the University of Lancaster and the University of Swansea—as part of the *Born into Care* series. The paper's authors are:

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Recommended citation

Griffiths, L.J. et al. (2021). *Born into care: One thousand mothers in care proceedings in Wales. A focus on maternal mental health.* London: Nuffield Family Justice Observatory.

Welsh translation and other reports in the series are available from: www.nuffieldfjo.org.uk

March 2021

The Family Justice Data Partnership's initial report on infants and newborn babies subject to care proceedings under Section 31 (s.31) of the Children Act 1989 revealed the scale and rising number of babies subject to care proceedings in Wales, notably in the first year of life (Alrouh et al. 2019). This prompted some pressing questions, including what might be done to prevent infants being removed from their mothers' care.

Using population-level data collected routinely by Cafcass Cymru (a Welsh government organisation that represents children's best interests in family justice proceedings) and maternal health records, subsequent analysis uncovered that over half of mothers involved (53%) self-reported an existing mental health disorder at their initial antenatal assessment, while three-quarters (77%) had a mental health-related GP or hospital contact or admission recorded in their health records prior to the child's birth (Griffiths et al. 2020a).

In this paper we uncover the nature or type of mental health disorders experienced, including common mental disorders such as anxiety and depression, autism spectrum disorder, attention deficit hyperactivity disorder, development disorder, conduct disorders, eating disorders, and severe mental illness such as schizophrenia and bipolar disorder.

Readers wishing to understand the current Welsh policy context should refer to Born into Care: One Thousand Mothers in Care Proceedings in Wales (Griffiths et al. 2020a), which sets out why understanding maternal mental health is critical to prevention and reducing care proceedings.

About the study

The mothers in this study represent a subset of all birth mothers of infants involved in s.31 care proceedings in Wales between 2011 and 2018 inclusive (n= 1,441). The eventual 'cohort' of mothers included were those that had antenatal, birth and health records that could be linked (n= 1,111).

Findings were benchmarked against an age-deprivation-matched comparison group of mothers who were not subject to care proceedings but who accessed maternity services (n= 23,414).

We examined recorded mental health-related contacts or admissions in GP and hospital inpatient records during pregnancy (270 days) and within the two-year period prior to the birth of the child involved in the care proceedings (730 days).

The following mental health disorders were examined:

- anxiety
- depression
- autism spectrum disorder
- attention deficit hyperactivity disorder
- development disorder
- conduct disorders
- eating disorders
- severe mental illness, including schizophrenia, schizotypal and delusional disorders, and bipolar disorder.

Data sources

Administrative data collected and maintained by Cafcass Cymru was acquired by the privacy-protecting SAIL Databank (Ford et al. 2009; Lyons et al. 2009; Jones et al. 2019). The SAIL Databank contains extensive anonymised health and administrative data about the population of Wales, accessible via a secure data sharing platform, all underpinned by an innovative and proportionate information governance model.

This study used Cafcass Cymru records linked to the following data sources:

- Welsh Demographic Service Dataset (WDSD)
- Welsh Index of Multiple Deprivation (WIMD)
- Maternity Indicators Dataset (MIDS)
- Patient Episode Database for Wales (PEDW)
- Welsh Longitudinal General Practice (WLGP) data (available for ~80% of practices across Wales).

Further information about these data sources is available from Born into Care: One Thousand Mothers in Care Proceedings in Wales (Griffiths et al. 2020a).

Strengths and limitations

To our knowledge, this is the first study to examine detailed mental health profiles relating to mothers involved in care proceedings in Wales. A better understanding of the needs and vulnerabilities of this group will provide opportunities to improve pre-birth services, leading to the potential for early intervention and enhanced support for these families.

We acknowledge that studies based on administrative data are necessarily limited by the scope and quality of available data, which is collected primarily for organisational rather than research purposes. The limitations of this data have been reported (Alrouh et al. 2019; Johnson et al. 2020). This study also only reports on mental health disorders that are both known to the healthcare practitioners and coded into patient records within the study period; as a result, we cannot estimate or report on undiagnosed or pre-existing problems. Our figures are therefore only for clinical presentation and are expected to be an underestimate of the true numbers of women with these illnesses.

Key findings

The overall picture regarding mothers' mental health (n= 1,111) is of markedly higher levels of vulnerability compared to the comparison group (n =23,414), and this holds for all mental health disorders.

- As previously reported, over half of cohort mothers had mental health-related GP or hospital contacts or admissions in the two years prior to birth compared to less than a fifth of the comparison group (Griffiths et al. 2020b).

  The relative difference during the pregnancy period is even more marked with an almost threefold increase in cohort mothers having a mental health-related GP or hospital contact. There are clear differences between groups for the separate GP contacts and hospital admission measures (see Figure 1).
- The most common mental health disorder was depression, with around 41% of mothers in the cohort for the two-year measure—over three times higher than in the comparison group of mothers (13%) (see Figure 2).
- A quarter of cohort mothers had records to indicate anxiety disorders during the two years leading up to birth compared to 11% in the comparison group. The levels of mental health disorders in the pregnancy period are understandably lower but maintain the general pattern of difference between the two study groups.
- Severe mental illness was present in nearly 4% of cohort mothers—eight times the rate in the comparison group (0.5%) (Figure 3).
- Autism disorders were present in less than 1% of cohort mothers—but this was around nine times higher than in the comparison group. At close to 3%, developmental disorders were over 16 times higher in the cohort mothers.

Reflections

In our earlier work (Griffiths et al. 2020a; Griffiths et al. 2020b) and blog (Broadhurst and Griffiths n.d.), we indicated that it is critical to be able to identify and differentiate mental health disorders to enable birth mothers at risk of child removal to receive appropriate support and treatment sufficiently tailored to need. The current descriptive analysis confirms this point.

In uncovering the specific categories of mental health need, it is clear that primary care is the most likely mental health contact and source of help for most of the mothers in the cohort group.

What we cannot discern from this analysis however is the quality or intensity of service provision, both before and during pregnancy. Early identification and management are essential. However, a recent review of perinatal provision indicated that women are not able to consistently access this support across health boards in Wales (Witcombe-Hayes et al. 2018).

Midwives play a key role in identifying women with complex social needs, including mental health needs. However, during pregnancy, the time that community midwives routinely have to spend with mothers is very limited and may be insufficient to effectively link women with services or to follow up on service referrals.

Figure 1: Percentage of mothers with any mental health (MH) disorder for periods of two years preceding birth and during pregnancy, by GP, hospital, or combined GP and hospital measure

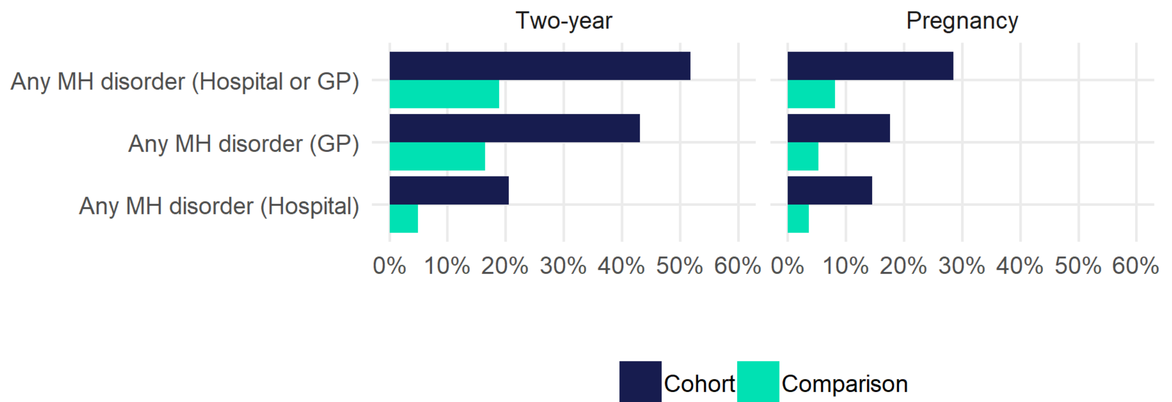


Figure 2: Percentage of mothers with depression or anxiety disorders for periods of two years preceding birth and during pregnancy, by GP, hospital, or combined GP and hospital measure

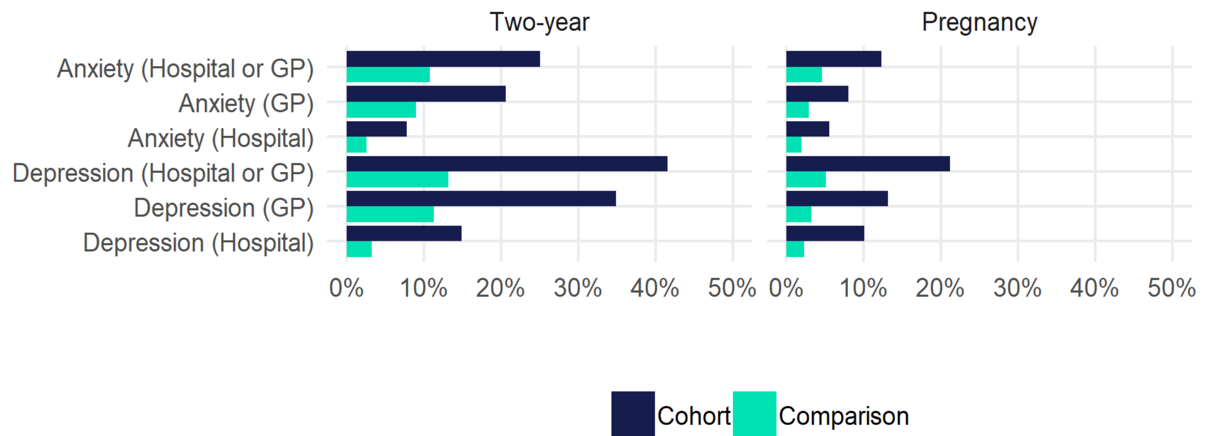
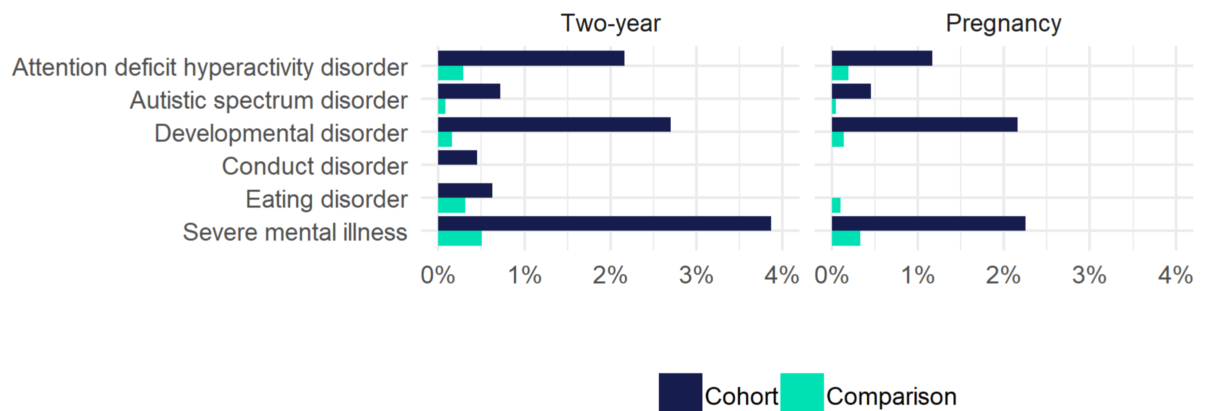


Figure 3: Percentage of mothers with other mental health disorders for periods of two years preceding birth and during pregnancy, by combined GP and hospital measure



Recommendations

- We strongly recommend that maternal mental health should feature far more centrally in the pre-birth assessments conducted by children's services.
- Although common mental health disorders are treatable, this still takes time and must be of sufficient intensity. To secure and provide an adequate treatment response to a mental health need, it is important that maternity and children's services identify any need at the earliest opportunity and that there is proactive planning and support around how appropriate services can be accessed.
- Regarding mothers with mental health difficulties of greater severity, timely intervention in pregnancy is all the more important—particularly as we have shown in our earlier work that mental health disorders will tend to be one category among a cluster of vulnerabilities.
- For all women involved in care proceedings, family court involvement is an added burden, which will likely exacerbate mental health disorders. To date there has been very limited analysis of how severe mental health disorders are understood or accommodated by children's services and the courts.

  Services such as Reflect in Wales are developing practice responses that recognise the impact of care proceedings and child removal on adults. The findings in this latest analysis add to the evidence base, which is informing the development of these important services.
- General recommendations for assessment of mental health problems and care planning in pregnancy and the postnatal period are available (NICE 2014).

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Additional information and data tables

Cohort and general population comparison group selection process

The cohort group included in this study is the same as used in two earlier pieces of research (Griffiths et al. 2020a; Griffiths et al. 2020b). It includes birth mothers of infants born between 1 January 2015 and 31 December 2018 who were involved in s.31 care proceedings in Wales during their first year of life (n =1,441). This timeframe was taken due to the availability of Maternity Indicator Dataset (MIDS) in the SAIL Databank, which captures data from local health board systems relating to women at their initial antenatal assessment (known as 'booking'), and to mother and baby (or babies) at labour and birth.

Of these, 1,310 (90.9%) were assigned an anonymised linkage field (ALF), enabling linkage to the other data sources. The sample was further restricted to mothers with MIDS assessment *and* birth information, and only included singleton births to mothers aged between 12 and 59 with a valid Welsh lower layer super output area (LSOA) recorded. For mothers giving birth multiple times within the study period only the first birth was included. The final cohort consisted of 1,111 mothers.

The initial report upon which this report is based (Griffiths et al. 2020a) used a comparison group consisting of all mothers included in MIDS over the same time period as cohort mothers. For this report we used a comparison group created for the separate academic journal article (Griffiths et al. 2020b) which employed a 'matching' process to select mothers in the comparison group who were similar to cohort mothers in terms of mothers age at childbirth and area level deprivation, to allow more meaningful comparisons between study groups. The final comparison group consisted of 23,414 mothers.

Mental health measures

Mothers' GP and hospital health records were analysed to understand the percentage of mothers who had mental health-related contacts or admissions for two time periods prior to birth of the child: during pregnancy (270 days) and two years preceding birth (730 days). We produced three sub-measures depending on the source of the health record: GP, hospital, and a combined measure (GP or hospital).

The 'any' measure recorded whether an individual had records to indicate any mental health contact or admission using a list of mental health codes developed and provided by the Adolescent Mental Health Data Platform. Similarly, eight mental health disorder measures were created using the sub-grouping of mental health codes. There was no hierarchical rule employed for the separate disorders. If an individual had clinical codes indicating more than one type of disorder then they were included in more than one category. Certain clinical codes could also be indicative of more than one mental health disorder.

For hospital inpatient data (PEDW) we searched for any diagnostic codes (up to 14 for each episode of care); this includes codes indicative of the main admission reason, or any listed co-morbidities of the patient, deemed relevant at the time by the consultant.

For GP data (WLGP), a patient can have multiple entries for each interaction with a GP; we searched all records to find the codes relevant to the mental health disorders of interest.

Information governance approval

Approval for the project was granted by the SAIL Information Governance Review Panel, under SAIL project 0929. Cafcass Cymru also approved use of the data for this project.

Table 1: Measures captured for two-year period preceding birth

Measure	Cohort (n)	Comparisons (n)	Cohort (%)	Comparisons (%)
Anxiety (hospital or GP)	279	2,522	25.1%	10.8%
Anxiety (GP)	229	2,118	20.6%	9.0%
Anxiety (hospital)	87	613	7.8%	2.6%
Depression (hospital or GP)	462	3,084	41.6%	13.2%
Depression (GP)	388	2,642	34.9%	11.3%
Depression (hospital)	166	771	14.9%	3.3%
Attention deficit hyperactivity disorder (hospital or GP)	24	68	2.2%	0.3%
Attention deficit hyperactivity disorder (GP)	12	25	1.1%	0.1%
Attention deficit hyperactivity disorder (hospital)	16	52	1.4%	0.2%
Autism spectrum disorder (hospital or GP)	8	19	0.7%	0.1%
Autism spectrum disorder (GP)	<5	7	NA	0.0%
Autism spectrum disorder (hospital)	7	13	0.6%	0.1%
Developmental disorder (hospital or GP)	30	38	2.7%	0.2%
Developmental disorder (GP)	<5	<5	NA	NA
Developmental disorder (hospital)	28	34	2.5%	0.1%
Conduct disorder (hospital or GP)	5	<5	0.5%	NA
Conduct disorder (GP)	5	<5	0.5%	NA
Conduct disorder (hospital)	<5	<5	NA	NA
Eating disorder (hospital or GP)	7	73	0.6%	0.3%
Eating disorder (GP)	<5	58	NA	0.2%
Eating disorder (hospital)	<5	20	NA	0.1%
Severe mental illness (hospital or GP)	43	118	3.9%	0.5%
Severe mental illness (GP)	18	35	1.6%	0.1%
Severe mental illness (hospital)	34	99	3.1%	0.4%
Any mental health disorder (hospital or GP)	575	4,426	51.8%	18.9%
Any mental health disorder (GP)	478	3,839	43.0%	16.4%
Any mental health disorder (hospital)	228	1,150	20.5%	4.9%

Note: Frequencies less than (<) 5 removed due to disclosure risk. NA: Not available.

Table 2: Measures captured during pregnancy

Measure	Cohort (n)	Comparisons (n)	Cohort (%)	Comparisons (%)
Anxiety (hospital or GP)	137	1,072	12.3%	4.6%
Anxiety (GP)	89	681	8.0%	2.9%
Anxiety (hospital)	62	465	5.6%	2.0%
Depression (hospital or GP)	235	1,202	21.2%	5.1%
Depression (GP)	146	758	13.1%	3.2%
Depression (hospital)	112	537	10.1%	2.3%
Attention deficit hyperactivity disorder (hospital or GP)	13	45	1.2%	0.2%
Attention deficit hyperactivity disorder (GP)	<5	8	NA	0.0%
Attention deficit hyperactivity disorder (hospital)	11	38	1.0%	0.2%
Autism spectrum disorder (hospital or GP)	5	11	0.5%	0.0%
Autism spectrum disorder (GP)	<5	<5	NA	NA
Autism spectrum disorder (hospital)	<5	11	NA	0.0%
Developmental disorder (hospital or GP)	24	32	2.2%	0.1%
Developmental disorder (GP)	<5	<5	NA	NA
Developmental disorder (hospital)	24	31	2.2%	0.1%
Conduct disorder (hospital or GP)	<5	<5	NA	NA
Conduct disorder (GP)	<5	<5	NA	NA
Conduct disorder (hospital)	<5	<5	NA	NA
Eating disorder (hospital or GP)	<5	23	NA	0.1%
Eating disorder (GP)	<5	11	NA	0.0%
Eating disorder (hospital)	<5	12	NA	0.1%
Severe mental illness (hospital or GP)	25	78	2.3%	0.3%
Severe mental illness (GP)	6	17	0.5%	0.1%
Severe mental illness (hospital)	22	70	2.0%	0.3%
Any mental health disorder (hospital or GP)	316	1,908	28.4%	8.1%
Any mental health disorder (GP)	196	1,245	17.6%	5.3%
Any mental health disorder (hospital)	161	841	14.5%	3.6%

Note: Frequencies less than (<) 5 removed due to disclosure risk. NA: Not available.

Acknowledgements

The report builds on previous work in the series:

- Broadhurst, K.et al. (2018). *Born into care: Newborns in care proceedings in England*. London: Nuffield Family Justice Observatory
- Alrouh, B. et al. (2019). *Born into care: Newborns and infants in care proceedings in Wales*. London: Nuffield Family Justice Observatory
- Griffiths, L.J. et al. (2020). *Born into care: One thousand mothers in care proceedings in Wales*. London: Nuffield Family Justice Observatory.

It also builds on the following scientific journal article:

- Griffiths, L.J. et al. (2020). Maternal health, pregnancy and birth outcomes for women involved in care proceedings in Wales: a linked data study. *BMC Pregnancy and Childbirth 2020; 20, 697.*

The authors would like to thank other team members involved in the Family Justice Data Partnership, including Ashley Akbari, David Ford, Kerina Jones, Jon Smart, and Simon Thompson (Swansea University), and Bachar Alrouh, Linda Cusworth, Stefanie Doebler, Becky Pattinson, Jane Huddleston, and Judith Harwin (Lancaster University). The authors would also like to acknowledge the intellectual contribution of the authors of the preceding reports in the series as well as all of the data providers who make data available for research, and the Adolescent Mental Health Data Platform for providing the mental health clinical codes used within this study. The authors would like to thank the following people for their support with this project: Lisa Harker, Director, Nuffield Family Justice Observatory; Cafcass Cymru; Administrative Data Research Centre Wales; and Welsh Government.

About Nuffield Family Justice Observatory

Nuffield Family Justice Observatory (Nuffield FJO) aims to support the best possible decisions for children by improving the use of data and research evidence in the family justice system in England and Wales. Covering both public and private law, Nuffield FJO provides accessible analysis and research for professionals working in the family courts.

Nuffield FJO was established by the Nuffield Foundation, an independent charitable trust with a mission to advance social well-being. The Foundation funds research that informs social policy, primarily in education, welfare, and justice. It also funds student programmes for young people to develop skills and confidence in quantitative and scientific methods. The Nuffield Foundation is the founder and co-funder of the Ada Lovelace Institute and the Nuffield Council on Bioethics.

Nuffield FJO has funded this project, but the views expressed are those of the authors and not necessarily those of Nuffield FJO or the Foundation.

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