The birth experience of women in the Czech prison system

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Abstract

Background: Evidence regarding the incarceration of women generally indicates significant mental health challenges, particularly elevated depression and reduced self-esteem. However, in the Czech Republic, little research has been undertaken on the birth experiences of women in this population and indeed, more generally there is little research undertaken on this specific group of women.

Methods: A quantitative questionnaire-based cohort study was undertaken in a major women's prison in the Czech Republic. The Birth Satisfaction Scale-Revised (BSS-R), the Edinburgh Postnatal Depression Scale (EPDS) and the Rosenberg Self-Esteem Scale (RSES) were administered to participants. Comparisons with normative data using the one-sample *t*-test, comparison between depression screen positive/negative groups using the independent *t*-test and correlational analysis was undertaken. A measure of postpartum posttraumatic stress disorder (PP-PTSD) was also administered.

Results: BSS-R sub-scale scores were observed to be either similar or higher than the non-custodial population. High screen positive rates of EPDS-assessed depression were observed and the study cohort was characterised by low RSES-assessed self-esteem. PP-PTSD levels approximated the non-custodial population.

Conclusions: Women in the Czech prison system report levels of birth satisfaction equal or better than non-custodial women. However, the mental health of this group is comparatively impoverished thus presenting a complex relationship between birth experience and mental health during the prison sentence. Limitations of the research is discussed and the direction of future research indicated.

Introduction

Childbirth represents a period of transition and change and represents a unique experience for the woman on her journey to motherhood (Hildingsson, 2015; Karlstrom, Nystedt, & Hildingsson, 2015; Kaliush et al, 2023). Prevailing expectations are that childbirth is generally perceived as a universally positive experience from the perspective of the mother (Karlstrom et al., 2015; Davis, Sclafani, 2022), an assertion rooted in the psychodynamic literature (Birns & ben-Ner, 1988). Interestingly, such psychodynamic assertions influence perceptions of motherhood to this day (Mayo & Moutsou, 2017). Contemporary objective evidence however highlights the mothers birth experience can have a significant and sometimes profoundly negative impact on maternal wellbeing (Chabbert, Panagiotou, & Wendland, 2021; Chabbert, Rozenberg, & Wendland, 2021).

Important predictors of a negative birth experience include primiparity, anxiety and mode of birth/delivery, a sobering observation given that nearly a quarter of women report a negative birth experience, for example, emotional discomfort, anxiety and depression (Chabbert, Rozenberg, et al., 2021). The notion that the birth experience is a unique experience impacted upon by psychosocial as well as environmental and life experience factors has long been recognised (Larkin, Begley, & Devane, 2009), however quality of care received during labour and birth/delivery remains a long-established aspect of overall satisfaction with the birth experience (Grundstrom, Martin, Malmquist, Nieminen, & Martin, 2023; Kazal, Flanagan, Mello, Monteiro, & Goldman, 2021), as does communication with the clinical team and involvement in decision-making from the woman's perspective (Doherty et al., 2023). Recent studies from a range of countries have also highlighted the interplay of perceived

birth experience from the perspective of the mother to a range of obstetric, psychological and psychiatric outcomes (Grundstrom et al., 2023; Hamm et al., 2020; Hamm, Srinivas, & Levine, 2019; Nahaee et al., 2020), thus understanding birth experience is key to maternal wellbeing.

It is important to reflect that what we understand about birth experience is, for the most part, based on evidence insights from the women within the general population, including the diversity that is core to the defining characteristics of the general population in developed countries (Nijagal et al., 2018; The International Consortium for Health Outcome Measurement, 2017). However, significantly less is known about the birth experiences of women whose circumstances are circumscribed by being on the borders of societal norms and in particular, those women who are within the criminal justice system generally and in prison in particular. Abbott, Scott, and Thomas (2023b) powerfully highlight that the prison environment is one that is archetypically adverse to pregnant women in relation to maternity care. Further, in the instance where compulsory separation of mothers from their babies may instill enduring sense of loss, grief and trauma (Abbott, Scott, & Thomas, 2023a). It is certainly the case that there is a comparative paucity of research into the relationship of birth experience to issues of pregnancy within prison despite compelling evidence of the complexity of the issues specific to this population (Baldwin, Sobolewska, & Capper, 2020) and the need to provide evidence-based care synchronous with practice being an ethical as well as a clinical concern (Baldwin et al., 2022). It should be recognized also that the majority of research that has been undertaken on incarcerated mothers within the prison system has been undertaken either within Australia, the United Kingdom and the United States, this possibly reflecting the

difficulties of undertaking this type of research with this population, difficulties of access to the population and possibly the relative motivation of researchers to be focused on this group. However, there are marked differences in the care of mothers in the criminal justice system and prison and research undertaken with regard to the birth experience of women in these contexts have rarely been undertaken.

In the Czech Republic, prisons are divided into custodial prisons, which hold defendants who have been taken into custody by a court, and prisons where convicted prisoners are placed to serve their sentences. Currently, there are a total of 10 custodial prisons and 25 prisons in the Czech Republic, two of which are women's prisons. Some predominantly male prisons also have facilities for women in separate wards. This study focused only on imprisoned women in one of the women's prisons, namely the Světlá nad Sázavou prison.

Upon imprisonment a woman's ability to mother her child is removed within the Czech judicial system (Lochmannová, 2020) alongside loss of freedom, and lack of autonomy (Sykes, 1958; Foster, 2012). Moreover, when a woman leaves her children and enters a prison sentence, she finds herself in a challenging situation that can be viewed from a theoretical perspective as a conflict or clash of roles (Parsons, 1991). On the one hand, the woman is expected to be a good mother (focused on the optimal wellbeing of the infant), but at the same time she is expected to fulfil the image of a model prisoner (concord with the rules and regulations of the penal institution in which she is incarcerated) and, as a result, endure the challenges of incarceration. Incarcerated mothers must come to terms with the idea of what it

means to be a good mother, where at the core of this idea is the assumption of providing for a child who requires daily care and contact between mother and child.

The study site is the only prison in the Czech Republic where women who, as mothers, do not have their children present in the prison environment are placed, but mothers with children are also imprisoned in a separate ward. This particular prison has a ward for the execution of sentences for mothers of young children in a low-, medium- and high-security ward, in which the age limit for children is set at one year until the child is usually three years old (can be extended to maximum four years of age). There is also a specialised ward for the execution of sentences for mothers of infants under the age of one year, where the mothers are mothers who have committed a particularly serious crime, are assigned to a high-security prison for the execution of their prison sentence, and the court does not interrupt the execution of their sentence in connection with their pregnancy and the care of their child under the age of one year.

The aim of the current investigation was to explore the birth experience of mothers in prison related to their most recent baby in the Czech Republic.

We sought to address our study aim through the following objectives:

(1) Determine whether incarcerated mothers have a comparatively impoverished birth experience compared to women in the general population.
(2) Contextualise the birth experience of incarcerated mothers within the context of depression, self-esteem and post-partum post-traumatic stress disorder.

Method

A retrospective cross-sectional study design was used to address the study objectives. Inclusion criteria included speaking Czech, age >18 years, having given birth within the past 5 years, being imprisoned in female prison in the Czech Republic.

Ethical approval

Ethical approval was gained from the Ethical committee for research of the University of BLINDED based on the decision of BLINDED, reference number BLINDED.

Data collection

The participants were recruited by the research team from one large female-only prison in the Czech Republic. Informed consent for study participation was undertaken by the researcher and instrument completion was undertaken using pencil and paper versions of the tools rather than online due to the unique context of this population of women. The questionnaires were distributed by the researchers together with professional prison staff between May and August 2023. A total of 60 incarcerated mothers were contacted. Participation was voluntary and a total of 58 completed questionnaires were returned, of which 55 were fully completed. The distribution of questionnaires was undertaken by psychologists and special educators employed in the prison, the return was fully anonymous through the collection of questionnaires using a designated individual in each ward, who handed the anonymously completed questionnaires to the designated prison staff member who handed them over to the researchers. In this context, the authors of the study do not foresee any bias in the data, as participation was entirely voluntary and the

individual submission of each questionnaire to prison staff was avoided, which could potentially create uncertainty on the part of the respondents.

Participants

Fifty-eight women consented to take part in the study of which fifty-five (95%) completed all BSS-R items, thus the dataset for analysis was based on this sample (N=55). The mean age (years) of participants was 32.11 (SD 5.62, range 22-47). The majority of participants were multiparous (N=48, 89%). The mean length of gestation was 37.65 (SD 3.46) weeks. The majority of participants had an unassisted vaginal birth (N=25, 45%), while 13 (24%) had an assisted vaginal delivery, 6 (11%) a planned Caesarean section (CS) and 11 (20%) an emergency CS. The mean number of months since birth of the last baby was 39.87 (SD 21.65) The mean length (months) of prison sentence was 40.65 (SD 28.36, range 5-180). A range of index offences were represented by the participant group ranging from theft and fraud to murder.

Instruments

The Birth Satisfaction Scale-Revised (BSS-R)

The *BSS-R* is a short self-report birth experience measure comprising three sub-scales of Stress Experienced during labour (SE sub-scale, 4-items), Women's personal Attributes (WA sub-scale, 2-items) and Quality of Care (QC sub-scale, 4-items) (Hollins Martin & Martin, 2014). Sub-scale or total scale scores may be used contingent on the purpose of the study (Martin et al., 2018). A number of *BSS-R* are reverse scored and higher sub-scale and total scale scores indicate a more positive birth experience. The *BSS-R* has recently been translated and validated in the

Czech postpartum population and has been observed to have generally excellent psychometric properties (Ratislavova, Hendrych Lorenzova, Hollins Martin, & Martin, 2022).

Edinburgh Postnatal Depression Scale (EPDS)

The Edinburgh Postnatal Depression Scale (EPDS) is a widely-used validated screening measure for postnatal depression (Cox, Holden, & Sagovsky, 1987). The EPDS comprises 10-items scored on a four-point (0-3) scaling with a minimum score of 0 and a maximum score of 30. A 'cut-score' is used in the application of the tool as a postnatal depression screening measure. However, particularly in terms of research, the EPDS is often used within a research context as a pseudo-continuous measure with higher scores indicative of comparatively greater depression (Martin & Redshaw, 2018) in addition to the clinical application as a categorical classification screening tool. A Czech-language version of the EPDS is available for clinical and research use (Břicháček, Břicháčková, & Urbanová, 2000).

Rosenberg Self-Esteem Scale (RSES)

The Rosenberg Self-Esteem Scale (RSES(Rosenberg, 1965)) is a 10-item self-report measure of self-esteem. The RSES is one of the most widely-used self-report measures of self-esteem and has been found to be valid and reliable in many language and application contexts (Martin, Thompson, & Chan, 2006). Higher scores indicate comparatively greater self-esteem.

Primary-Care PTSD-5 adapted for postpartum use (PC-PTSD-5)

The Primary Care Post-Traumatic Distress Scale (PC-PTSD-5; (Prins et al., 2015) is a primary care PTSD screening tool based on DSM-V PTSD criteria . It comprises an initial question in original formulation asking is the respondent has experienced a traumatic event. If the answer is 'yes', the five 'yes'/'no' questions of the measure are then completed with each item receiving a score or 1 for a positive response. We adapted the measure so that the prime asked 'how traumatic was your childbirth experience based on a 1-10 scoring from not very traumatic to very traumatic. The cut-score for a positive screen is 4. We report two cut-scores of 3 and 4.

In addition, a short bespoke questionnaire collected data on the most recent birth and demographic as well as sentencing characteristics.

Data analysis

The mean BSS-R sub-scale and total scale score was compared to those reported in the non-custodial postpartum population reported by (Ratislavova et al., 2022) using the one-sample *t*-test. The study of Ratislavova et al. (2022) used data from a Czech participant population of >400 women from the general population who had had their most recent baby within the past 12 months. This participant group included women who had had an unassisted vaginal birth and those that had had intervention deliveries. Known-groups discriminant validity (KGDV) was evaluated using analysis of variance comparing BSS-R scores on the basis of groups categorised by birth type (unassisted vaginal birth/assisted delivery/emergency Caesarean section (CS)/elective CS. KGDV was also evaluated by comparing BSS-R sub-scale and total scores by groups differentiated by EPDS screen categorisation using the independent *t*-test. Risk ratios were calculated based on EPDS % case

classification based on comparisons with the non-custodial population. Threshold PC-PTSD-5 scores were also used to both classify Correlations between PC-PTSD-5, RSES and BSS-R sub-scale/total scores was also examined using Pearson's *r* correlation coefficient.

Results

Descriptive and distributional characteristics of BSS-R scores are shown in Table 1. The skew and kurtosis profile of scores is similar to that reported by Czech women in the non-custodial population by Ratislavova et al. (2022). One sample t-tests revealed no statistically significant differences between BSS-R SE scores ($t_{(54)}$ = 1.83, p = 0.07) and BSS-R WA scores ($t_{(54)}$ = 1.04, p = 0.07) and those reported by Ratislavova et al. (2022), however BSS-R QC scores ($t_{(54)}$ = 2.25, p = 0.03) and BSS-R total scores ($t_{(54)}$ = 2.40, p = 0.02) were observed to be significantly higher.

TABLE 1. DESCRIPTIVE AND DISTRIBUTIONAL CHARACTERISTICS OF THE BSS-R IN FEMALE PRISONERS

The mean EPDS score was 10.35 (SD 6.11). Twenty-two women (43%) screened positive on the EPDS out of N=51 who completed the measure using the cut-score of 11 (Horakova et al., 2022) and N=24 (47%) screened positive using the cut-score of 10 (Fiala, Svancara, Klanova, & Kasparek, 2017). Using the normal population % positive rates reported by Fiala et al. (2017) at six weeks (21.9) and six months (18.4) postpartum, the relative risk was 2.15 and 2.55 respectively. The modifed PC-PTSD-5 initial single item screen score was 3.18 (SD 3.10, range 0-9) and the mean modifed PC-PTSD-5 total score was 1.02 (SD 1.17). Using the recommended screen cut-off of 4, three women screened positive (6%) and using the less

restrictive criteria of 3, 6 women screened positive (12%). The RSES mean score was 14.78 (SD 1.65), range 12-21. Twenty-eight (51%) women were classified as having low self-esteem using the criteria (<15) based on an interpolation criteria derived from de Lima and de Souza (2019).

Known-groups discriminant validity

Comparisons between groups on the basis of birth/delivery type are summarisied in Table 2. The elective delivery group were not included in the inferential statistical testing due to low numbers in this group. However, ANOVA revealed no statistically signficant differences in BSS-R sub-scale and total scores as a function of birth/delivery type.

TABLE 2: COMPARISON OF CZECH BSS-R TOTAL AND SUB-SCALE SCORES DIFFERENTIATED BY BIRTH/DELIVERY TYPE

Using the Horakova et al. (2022) EPDS cut-score (11) comparisons between groups (Table 3.) revealed those screened case negative to have significantly higher BSS-R WA sub-scale scores compared to those screened positive. No other differences in BSS-R sub-scale and the total scale score were observed as a function of EPDS screen status.

TABLE 3: COMPARISON OF CZECH BSS-R TOTAL AND SUB-SCALE SCORES DIFFERENTIATED BY EPDS STATUS

Correlational analysis

Pearson's *r* correlation coefficients between BSS-R sub-scales and the total BSS-R score and RSES and PC-PTSD-5 scores are shown in Table 3. The BSS-R SE sub-

scale score was observed to be significantly and positively correlated with the RSES score (p<0.01) and significantly and negatively correlated with the PC-PTSD-5 score (p<0.01). The BSS-R total score was observed to be significantly and negatively correlated with the PC-PTSD-5 score (p<0.01).

TABLE 4: CORRELATION OF CZECH BSS-R TOTAL AND SUB-SCALE SCORES WITH SELF-REPORTED SELF-ESTEEM AND PTSD

Discussion

The findings from the study are equivocal and counterintuitive in terms of the birth experience. Female prisoners reported significantly higher BSS-R QC sub-scale scores and BSS-R total scores than those reported in the non-custodial Czech postpartum population (Ratislavova et al., 2022). These findings would also seem initially even more startling by the generally low levels of self-esteem observed and the comparatively high levels of depression by screen seen, in terms of risk ratios these being more than twice that observed in the non-custodial population. Thus, the self-esteem and depression screen findings present a picture of comparatively poor mental health in this population against a birth experience which is overall (by BSS-R total score) significantly better than the normal non-custodial population. One possible explanation may be the context of childbirth and the uniqueness and superordinate context of birthing (Asselmann & Specht, 2023). It has long been recognised that events characterised by high emotionality and arousal may be encoded in memory in a uniquely robust and specific manner, for example, the phenomena of 'flashbulb memories' (Brown & Kulik, 1977). Consequently, memories such as childbirth may be encapsulated, robust and contextually distal to affective disturbance, for example depression, since the nature of 'flashbulb memories' is undoubtedly complex (Sierra & Berrios, 1999). However, an alternative possibility for the comparatively good birth experiences reported may be, rather controversially, the context of the prison environment itself as a potentially positive factor in birth experience. It has long been recognised that incarcerated women may have faced significant adversity and/or unstable and chaotic personal circumstances (Agboola, Appiah, & Linonge-Fontebo, 2022; Rossegger et al., 2009) and therefore the prison environment may offer a context of stability, routine and consistency. This

idea definitely needs further exploration, as does the mode of birth and the encapsulated perception of birth. The observation of relatively modest levels of screen positive findings for PP-PTSD, indeed, using the conventional cut-off for the PC-PTSD-5 (Prins et al., 2015) the findings of PP-PTSD were similar to those reported in the non-custodial population (Slade, Murphy, & Hayden, 2022).

It was also observed that no statistically significant differences were observed between groups as a function of birth/delivery type. This is an unusual finding compared to other non-custodial Czech studies that have used the BSS-R (Ratislavova et al., 2022), though the implications are unclear due to the small sample size and in particular the exclusion of the elective CS group due to very low sample size.

It was also observed that with the exception of the BSS-R WA sub-scale, no differences were observed between depression screen positive and negative groups on BSS-R sub-scale and total scores. This is a surprising finding given other non-custodial population studies which show highly statistically significant differences between those screened depression positive compared to screened depression negative, for example Grundstrom et al. (2023). This may be tentatively interpreted in that the perception of birth experience is encapsulated compared to general mental health status.

The study had some limitations. Firstly, we are aware that our data collection was undertaken face-to-face with female prisoners and the comparisons we made with Czech BSS-R scores from the non-custodial population were collected using online

methods. It is therefore possible that the difference between data collection approaches may have had an impact on the differences observed between scores. However, it is also noteworthy that no significant differences were observed between BSS-R SE and BSS-R WA sub-scale scores between studies, which may suggest that the risk of a potential methodological confound may be minimal in this regard. Secondly, we adapted the PC-PTSD-5 for this study and population and therefore we can't claim that this adaptation of the tool is psychometrically valid in this population. Another potential limitation is the fact that the questionnaire was distributed using prison staff, specifically psychologists and special educators, and although it was collected anonymously and then forwarded to the researchers as a whole using a specific selected individual in each ward, this method of data collection may have affected the rate of return and openness in the questionnaire, however, the rate of return is very satisfactory in the authors' view and the data itself shows no inconsistencies. Future studies may usefully address these limitations and in addition unpack the findings further by mixed-methodology approaches to understand the quantitative findings with narrative accounts from the female prisoners.

Conclusion

Notwithstanding the limitations of the current study highlighted above, the current investigation has provided novel insights into the birth experiences of women in the Czech Prison system. Against a profile of comparatively poor mental health in terms of high positive screen levels of depression and low self-esteem, women were observed to have a generally good birth experience when compared to the non-custodial Czech population. Though provisional, due to the unvalidated nature of the

version of PP-PTSD screening measure we used, levels of PP-PTSD in this population were similar to the non-custodial population.

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References

Abbott, L., Scott, T., & Thomas, H. (2023a). Compulsory separation of women prisoners from their babies following childbirth: Uncertainty, loss and disenfranchised grief. *Sociology of Health and Illness, 45*(5), 971-988. doi:10.1111/1467-9566.13423

Abbott, L., Scott, T., & Thomas, H. (2023b). Experiences of midwifery care in English prisons. *Birth, 50*(1), 244-251. doi:10.1111/birt.12692

Agboola, C., Appiah, E. K., & Linonge-Fontebo, H. N. (2022). Women's pathways into crime and incarceration: Insights from South Africa. *Cogent Social Sciences, 8*(1), 2044123. doi:10.1080/23311886.2022.2044123

Asselmann, E., & Specht, J. (2023). Baby bliss: Longitudinal evidence for set-point theory around childbirth for cognitive and affective well-being. *Emotion, 23*(7), 2013-2023. doi:10.1037/emo0001217

Baldwin, A., Capper, T., Harvey, C., Willis, E., Ferguson, B., & Browning, N. (2022). Promoting nurses' and midwives' ethical responsibilities towards vulnerable people: An alignment of research and clinical practice. *Journal of Nursing Management, 30*(7), 2442-2447. doi:10.1111/jonm.13764

Baldwin, A., Sobolewska, A., & Capper, T. (2020). Pregnant in prison: An integrative literature review. *Women Birth, 33*(1), 41-50. doi:10.1016/j.wombi.2018.12.004

Birns, B., & ben-Ner, N. (1988). Psychoanalysis Constructs Motherhood. In B. Birns & D. F. Hay (Eds.), *The Different Faces of Motherhood* (pp. 47-72). Boston, MA: Springer US.

Břicháček, V., Břicháčková, V., & Urbanová, M. (2000). *Edinburghská škála postnatální deprese : ověření v České republice*. Retrieved from Praha,

Czech Republic (former Czechoslovakia): https://www.medvik.cz/link/MED00113619

Brown, R., & Kulik, J. (1977). Flashbulb memories. *Cognition, 5*, 73-99.

Chabbert, M., Panagiotou, D., & Wendland, J. (2021). Predictive factors of women's subjective perception of childbirth experience: a systematic review of the literature. *Journal of Reproductive and Infant Psychology, 39*(1), 43-66. doi:10.1080/02646838.2020.1748582

Chabbert, M., Rozenberg, P., & Wendland, J. (2021). Predictors of Negative Childbirth Experiences Among French Women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 50*(4), 450-463. doi:10.1016/j.jogn.2021.02.004

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry, 150*, 782-786. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/3651732

de Lima, T. J. S., & de Souza, L. E. C. (2019). Rosenberg self-esteem scale: method effect and gender invariance. *Psico-USF, 24*, 517-528. doi:10.1590/1413-82712019240309

Doherty, J., Coughlan, B., Lynch, S., Sheehy, L., Martin, C. H., Martin, C., . . . O'Brien, D. (2023). The importance of communication and involvement in decision-making: A study in Ireland exploring birth satisfaction using the Birth Satisfaction Scale-Revised (BSS-R). *Eur J Midwifery, 7*, 12. doi:10.18332/ejm/162943

Fiala, A., Svancara, J., Klanova, J., & Kasparek, T. (2017). Sociodemographic and delivery risk factors for developing postpartum depression in a sample of 3233

mothers from the Czech ELSPAC study. *BMC Psychiatry, 17*(1), 104. doi:10.1186/s12888-017-1261-y

Grundstrom, H., Martin, C. J. H., Malmquist, A., Nieminen, K., & Martin, C. R. (2023). Translation and validation of the Swedish version of the Birth Satisfaction Scale-Revised (BSS-R). *Midwifery, 124*, 103745. doi:10.1016/j.midw.2023.103745

Hamm, R. F., McCoy, J., Oladuja, A., Bogner, H. R., Elovitz, M. A., Morales, K. H., . . . Levine, L. D. (2020). Maternal Morbidity and Birth Satisfaction After Implementation of a Validated Calculator to Predict Cesarean Delivery During Labor Induction. *JAMA Netw Open, 3*(11), e2025582. doi:10.1001/jamanetworkopen.2020.25582

Hamm, R. F., Srinivas, S. K., & Levine, L. D. (2019). Risk factors and racial disparities related to low maternal birth satisfaction with labor induction: a prospective, cohort study. *BMC Pregnancy and Childbirth, 19*(1), 530. doi:10.1186/s12884-019-2658-z

Hildingsson, I. (2015). Women's birth expectations, are they fulfilled? Findings from a longitudinal Swedish cohort study. *Women Birth, 28*(2), e7-13. doi:10.1016/j.wombi.2015.01.011

Hollins Martin, C. J., & Martin, C. R. (2014). Development and psychometric properties of the Birth Satisfaction Scale-Revised (BSS-R). *Midwifery, 30*(6), 610-619. doi:10.1016/j.midw.2013.10.006

Horakova, A., Noskova, E., Svancer, P., Marcianova, V., Koliba, P., & Sebela, A. (2022). Accuracy of the Edinburgh Postnatal Depression Scale in screening for major depressive disorder and other psychiatric disorders in women

towards the end of their puerperium. *Ceska Gynekologie, 87*(1), 19-26. doi:10.48095/cccg202219

Karlstrom, A., Nystedt, A., & Hildingsson, I. (2015). The meaning of a very positive birth experience: focus groups discussions with women. *BMC Pregnancy and Childbirth, 15*, 251. doi:10.1186/s12884-015-0683-0

Kazal, H. R., Flanagan, P. J., Mello, M. J., Monteiro, K., & Goldman, R. E. (2021). Birth Stories, Support, and Perinatal Emotional Health among Minority Adolescent Mothers: A Mixed Methods Study. *Journal of Pediatric and Adolescent Gynecology*. doi:10.1016/j.jpag.2021.04.012

Larkin, P., Begley, C. M., & Devane, D. (2009). Women's experiences of labour and birth: an evolutionary concept analysis. *Midwifery, 25*(2), e49-59. doi:10.1016/j.midw.2007.07.010

Lochmannová, A. (2020). *Tělo za katrem*. Praha: Academia.

Martin, C. R., Hollins Martin, C. J., Burduli, E., Barbosa-Leiker, C., Donovan-Batson, C., & Fleming, S. E. (2018). The Birth Satisfaction Scale - Revised (BSS-R): should the subscale scores or the total score be used? *Journal of Reproductive and Infant Psychology*, 1-6. doi:10.1080/02646838.2018.1490498

Martin, C. R., & Redshaw, M. (2018). Establishing a coherent and replicable measurement model of the Edinburgh Postnatal Depression Scale. *Psychiatry Research, 264*, 182-191. doi:10.1016/j.psychres.2018.03.062

Martin, C. R., Thompson, D. R., & Chan, D. S. (2006). An examination of the psychometric properties of the Rosenberg Self-Esteem Scale (RSES) in Chinese acute coronary syndrome (ACS) patients. *Psychology, Health & Medicine, 11*(4), 507-521. doi:10.1080/13548500500407367

Mayo, R., & Moutsou, C. (2017). *The Mother in Psychoanalysis and Beyond Matricide and Maternal Subjectivity*. London: Routledge.

Nahaee, J., Mohammad-Alizadeh-Charandabi, S., Abbas-Alizadeh, F., Martin, C. R., Hollins Martin, C. J., Mirghafourvand, M., & Hassankhani, H. (2020). Pre- and during-labour predictors of low birth satisfaction among Iranian women: a prospective analytical study. *BMC Pregnancy and Childbirth, 20*(1), 408. doi:10.1186/s12884-020-03105-5

Nijagal, M. A., Wissig, S., Stowell, C., Olson, E., Amer-Wahlin, I., Bonsel, G., . . . Franx, A. (2018). Standardized outcome measures for pregnancy and childbirth, an ICHOM proposal. *BMC Health Services Research, 18*(1), 953. doi:10.1186/s12913-018-3732-3

Parsons, T. (1991). *The Social System*. London, United Kingdom: Taylor & Francis.

Prins, A., Bovin, M. J., Kimerling, R., Kaloupek, D. G., Marx, B. P., Pless Kaiser, A., & Schnurr, P. P. (2015). *Primary Care PTSD Screen for DSM-5 (PC-PTSD-5)* Retrieved from https://www.ptsd.va.gov

Ratislavova, K., Hendrych Lorenzova, E., Hollins Martin, C. J., & Martin, C. R. (2022). Translation and validation of the Czech Republic version of the Birth Satisfaction Scale-Revised (BSS-R). *Journal of Reproductive and Infant Psychology*, 1-17. doi:10.1080/02646838.2022.2067837

Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton, NJ: Princeton University Press.

Rossegger, A., Wetli, N., Urbaniok, F., Elbert, T., Cortoni, F., & Endrass, J. (2009). Women convicted for violent offenses: Adverse childhood experiences, low level of education and poor mental health. *BMC Psychiatry, 9*(1), 81. doi:10.1186/1471-244X-9-81

Sierra, M., & Berrios, G. E. (1999). Flashbulb memories and other repetitive images: a psychiatric perspective. *Comprehensive Psychiatry, 40*(2), 115-125. doi:10.1016/s0010-440x(99)90115-3

Slade, P., Murphy, A., & Hayden, E. (2022). Identifying post-traumatic stress disorder after childbirth. *BMJ, 377*, e067659. doi:10.1136/bmj-2021-067659

Sykes, G. (1958). *The Society of Captives: A Study of a Maximum Security Prison*. Princeton. NJ: Princeton University Press.

The International Consortium for Health Outcome Measurement. (2017). *Pregnancy and Childbirth Standard Set and Reference Guide, version 1.0.3*. Retrieved from http://www.ichom.org/medical-conditions/pregnancy-and-childbirth/

Table 1. Mean, standard deviation and distributional characteristics of individual BSS-R items, sub-scale totals and the total BSS-R score of female prisoners. se = standard error of the mean.

Item	Item content	Domain*	Mean	SD	Min	Max	Skew	Kurtosis	se
BSS-R 1	I came through childbirth virtually unscathed	SE	3.00	1.02	0	4	-1.14	0.99	0.14
BSS-R 2	I thought my labour was excessively long	SE	2.31	1.33	0	4	-0.24	-1.19	0.18
BSS-R 3	The delivery room staff encouraged me to make decisions about how I wanted my birth to progress	QC	2.33	1.19	0	4	-0.44	-0.79	0.16
BSS-R 4	I felt very anxious during my labour and birth	WA	2.16	1.36	0	4	-0.16	-1.25	0.18
BSS-R 5	I felt well supported by staff during my labour and birth	QC	3.11	0.81	1	4	-0.81	0.39	0.11
BSS-R 6	The staff communicated well with me during labour	QC	3.25	0.97	0	4	-1.72	3.03	0.13
BSS-R 7	I found giving birth a distressing experience	SE	2.67	1.19	0	4	-0.93	0.01	0.16
BSS-R 8	I felt out of control during my birth experience	WA	2.67	0.98	0	4	-1.05	0.98	0.13
BSS-R 9	I was not distressed at all during labour	SE	1.95	1.16	0	4	0.45	-1.12	0.16
BSS-R 10	The delivery room was clean and hygienic	QC	3.56	0.60	2	4	-0.99	-0.08	0.08
Stress	Sub-scale total		9.93	3.27	1	16	-0.50	-0.02	0.44
Attributes	Sub-scale total		4.84	1.90	1	8	-0.13	-0.80	0.26
Quality	Sub-scale total		12.25	2.36	6	16	-0.60	0.10	0.32
Total	Total score		27.02	5.49	16	39	0.00	-0.48	0.74

*Domain of the Czech BSS-R. SE = Stress experienced during childbearing, WA = Women's attributes, QC = Quality of Care

Table 2. Comparison of female prisoner BSS-R total and sub-scale scores differentiated by birth/delivery type. Standard deviations are in parentheses. Note: Elective section group excluded from ANOVA due to low N thus degrees of freedom are 2, 46.

BSS-R Scale	Vaginal Birth (n-25) M (SD)	Instrument Delivery (n=11) M (SD)	Elective Section (n=6) M (SD)	Emergency Section (n=11) M (SD)	*F*	*p*
Stress	10.52 (3.44)	9.92 (2.22)	10.50 (2.81)	8.27 (3.93)	1.79	0.18
Attributes	5.20 (1.61)	4.46 (2.15)	5.83 (1.83)	3.91 (2.02)	2.02	0.14
Quality	12.20 (2.45)	12.77 (1.92)	12.00 (3.10)	11.91 (2.43)	0.44	0.64
Total score	27.92 (5.85)	27.15 (4.93)	28.33 (5.09)	24.09 (5.09)	1.90	0.16

Table 3. Legend: Comparison of female prisoner BSS-R total and sub-scale scores differentiated by EPDS case (negative/positive) classification. Standard deviations are in parentheses, degrees of freedom = 49.

BSS-R Scale	Case negative (n=29) M (SD)	Case positive (n=22) M (SD)	95% CI	*t*	*p*	*g*	(95%CI)	Effect size
Stress	10.83 (2.82)	9.68 (3.11)	-0.53 – 2.82)	1.37	0.18	0.38	(-0.18 – 0.95)	Small
Attributes	5.52 (1.57)	4.23 (1.95)	0.30 – 2.28	2.62	0.01	0.73	(0.15 – 1.31)	Medium
Quality	12.03 (2.29)	12.45 (2.61)	-1.80 – 0.96	0.61	0.54	0.17	(-0.73 – 0.39)	Negligible
Total score	28.38 (5.12)	26.36 (5.39)	-0.96 – 4.99	1.36	0.18	0.38	(-0.19 – 0.94)	Small

Table 4. Pearson's *r* correlation coefficients between BSS-R sub-scales, RSES and PC-PTSD-5 scores.

	SE	WA	QC	BSSR	RSES	PC-PTSD-5
SE	1.00	0.63***	0.11	0.86***	0.36**	-0.36**
WA		1.00	0.08	0.75***	0.24	-0.26
QC			1.00	0.52***	-0.09	-0.19
BSS-R total				1.00	0.26	-0.38**
RSES					1.00	-0.23
PC-PTSD-5						1.00

Note: BSS-R Stress experienced (SE), BSS-R Womens Attributes (WA), BSS-R Quality of Care (QC), BSS-R Total score (BSSR), Rosenberg Self-Esteem Scale (RSES), Adapted version of the Primary Care Post-Traumatic Stress Disorder for DSM-5 screen (PC-PTSD-5). Correlations statistical significance *p<0.05, **p<0.01, ***p<0.001