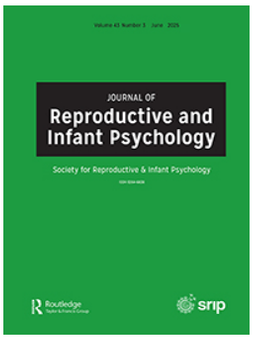

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Translation and psychometric validation of the Slovak Partner version of the Birth Satisfaction Scale-Revised (BSS-R)

Lucia Mazúchová[a], Alena Lochmannová[b], Caroline J. Hollins Martin[c] and Colin R. Martin[d]

[a]Department of Midwifery, Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Martin, Slovak Republic; [b]Department of Emergency Medicine, Diagnostic Disciplines and Public Health, Faculty of Health Care Studies, University of West Bohemia, Plzeň, Czech Republic; [c]School of Health and Social Care, Edinburgh Napier University (ENU), Edinburgh, UK; [d]Institute of Health and Wellbeing, University of Suffolk, Ipswich, UK

ABSTRACT

Background: Birth experiences significantly impact both parents' psychological well-being, relationship dynamics, and early parenting. While the experiences of mothers during childbirth are widely studied, there is a growing need to understand and measure birth satisfaction among fathers as well.

Aim: This study aimed to address the gap in understanding fathers' childbirth experiences by translating and validating the Slovak Partner version of the Birth Satisfaction Scale-Revised (SKP-BSS-R). The research evaluated the psychometric properties of the SKP-BSS-R, including its factor structure, internal consistency, and validity, to establish its suitability as a tool for assessing fathers' satisfaction with the childbirth experience.

Methods: A cross-sectional design was employed with 262 Slovak fathers. The SKP-BSS-R underwent translation and expert review following international guidelines. Confirmatory factor analysis (CFA) assessed its tri-dimensional structure, while internal consistency was evaluated using Cronbach's alpha. Validity testing included divergent, convergent, and known-groups discriminant analyses.

Results: The SKP-BSS-R showed excellent psychometric properties. CFA confirmed its tri-dimensional structure, and Cronbach's alpha values exceeded 0.70 for all subscales and the total score. Known-groups validity highlighted significant differences based on delivery type and parity. Convergent validity demonstrated strong correlations among subscales and the total score, while divergent validity showed no significant correlation with participant age.

Conclusions: The SKP-BSS-R is a reliable and valid instrument for assessing birth satisfaction in Slovak fathers. Its use alongside maternal-focused tools provides a holistic view of family birth experiences, supporting research and interventions aimed at enhancing psychological well-being and family-centred care.

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CONTACT Alena Lochmannová lochmann@fzs.zcu.cz Department of Emergency Medicine, Diagnostic Disciplines and Public Health, Faculty of Health Care Studies, University of West Bohemia, Husova 11, Plzeň 301 00, Czech Republic

Introduction

Birth satisfaction is a crucial factor influencing the emotional well-being and adjustment of parents to their new roles. While research has traditionally focused on mothers' experiences (Hinic, 2017), there is growing recognition of the importance of understanding birth satisfaction in fathers as well (Hildingsson et al., 2011). Fathers often have needs similar to mothers during pregnancy and childbirth, such as feeling involved, supported, and reassured about the safety of both mother and baby. Meeting these needs is especially critical for first-time fathers, who may face greater challenges in navigating their role during childbirth (Howarth et al., 2019).

Although fathers are now almost universally present at childbirth (Eggermont et al., 2017; Redshaw & Henderson, 2013), their experiences remain significantly underresearched (Elmir & Schmied, 2022). Similarly, childbirth education and labour practices often lack sufficient focus on addressing men's specific needs and expectations during this transformative event. Fathers frequently describe childbirth as both an awe-inspiring and distressing experience, often marked by unmet expectations and uncertainty about their role. This ambiguity can lead to feelings of confusion and helplessness, which may heighten their distress during labour and delivery (Elmir & Schmied, 2022).

The transition to parenthood represents a profound shift in both daily routines and emotional experiences, requiring the full engagement of both parents. While this transition often brings a wealth of positive emotions, childbirth does not always align with parental expectations and can be accompanied by significant psychological challenges (Vischer et al., 2020). This focus risks neglecting the essential role of fathers' emotional well-being during delivery and its influence on parent-child bonding (Bowen & Miller, 1980) and the parental relationship (Johansson et al., 2015; Smith et al., 2024).

Fathers perceive their presence during delivery as a vital part of their transition into fatherhood. This experience is marked by deeply emotional moments, with the most positive being the arrival of their child. However, it is also accompanied by challenges, such as witnessing their partner's pain and feeling unable to provide meaningful assistance (Vehviläinen-Julkunen & Liukkonen, 1998). Research indicates that approximately 6% of fathers experience symptoms consistent with probable PTSD within the first year after childbirth. Many also develop a fear of childbirth after attending labour, with the intensity of these symptoms often linked to the specific circumstances and type of labour they witnessed (Golubitsky et al., 2024).

In studies exploring fathers' experiences in the birthing room, participants frequently described the event as both empowering and satisfying, despite the interplay of positive and negative emotions (Sapountzi-Krepia et al., 2010; Vischer et al., 2020). Fathers highlight moments of profound joy, such as witnessing their child's first breath and hearing the initial cry. However, they also report challenges, including feelings of discomfort due to inadequate facilities, a lack of integration into the birthing process, and heightened anxiety while observing their partner's labour and concerns over the baby's health (Smith et al., 2024). Fathers may experience long-term impacts of birth-related trauma, including the suppression of emotions they perceive as inappropriate, anxiety about having more children, difficulties in parenting, and persistent distress affecting their well-being (Charman et al., 2024). Conversely, fathers who perceive themselves as active participants in

supporting their partner during labour often experience a greater sense of fulfilment, while those who feel unable to provide such support may face heightened stress levels (Johnson, 2002). Many fathers experience feelings of helplessness and uncertainty about their role during labour, which can subsequently impact their mental well-being as well as their relationship with their partner and newborn (Hanson et al., 2009). Clear and reliable communication from medical staff regarding the condition of their loved ones can help alleviate these fears (Golubitsky et al., 2024). A positive birth experience is crucial for fathers as it fosters a sense of accomplishment, strengthens self-worth, and builds confidence – key factors in facilitating a healthy transition into fatherhood and supporting psychological resilience (Hildingsson et al., 2013). At the same time, addressing both positive and negative aspects of this experience is essential for understanding its broader implications on paternal well-being (Uribe-Torres et al., 2024), the partner relationship (Elmir & Schmied, 2022), and family dynamics (Xue et al., 2018). This comprehensive approach requires the development, translation and validation of tools that are not only reliable but also appropriately adapted to the local language and cultural context to ensure accurate and meaningful insights.

The present study aimed to translate and validate the Slovak Partner version of the Birth Satisfaction Scale-Revised (BSS-R), referred to as the SKP-BSS-R.

Method

A cross-sectional research design was employed for the primary analysis, complemented by an embedded between-subjects design for further exploration. The statistical findings from the analyses were subsequently integrated to provide a comprehensive overview of the study's focus.

Ethical approval

Ethical approval for the study was granted by the Ethics Committee for Research at the University of West Bohemia in Pilsen, under project number ZCU 000795/2024. All participants provided informed consent prior to their inclusion in the study. Participation was voluntary, and participants were informed about their right to withdraw at any time without providing a reason. Data collection and analysis were conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. No personally identifiable information was collected, and all data were anonymised to ensure participant confidentiality.

Instrument

Participants completed a three-part questionnaire. The first section collected demographic information such as age, marital status, education, socioeconomic status, and religion. The second section focused on childbirth details, including the number of children, date of the most recent birth, multiple births, delivery type, place of birth, and labour duration. It also included two rating scales: one assessing the traumatic nature of the last birth experience (1 = not traumatic; 10 = extremely

traumatic) and the other evaluating overall satisfaction with the birth experience (1 = lowest satisfaction; 10 = highest satisfaction). The third section introduced the SKP-BSS-R, a newly adapted version of the Birth Satisfaction Scale-Revised (BSS-R) for partners.

The SKP-BSS-R mirrors the maternal BSS-R (Hollins Martin & Martin, 2014), with minor modifications for partner relevance. It evaluates three domains: Quality of Care (4 items), Partner's Attributes (2 items), and Stress During Childbirth (4 items). Responses are scored on a 5-point Likert scale (0–4), with higher scores indicating greater satisfaction. Subscale and total scores range from 0 to 40.

Translation process

The original UK partner BSS-R underwent forward and backward translation, followed by a review by an expert committee to resolve discrepancies. The translation was performed by competent linguistic experts in both the English and the Slovak languages, ensuring semantic, conceptual, and cultural equivalence of the items. The expert committee consisted of three members: one native Slovak speaker, one specialist in sociocultural adaptation, and one health psychologist, all of whom had experience in psychometrics. The committee carefully reviewed the translation and resolved any discrepancies through discussion, ensuring that the final Slovak version accurately reflected the intended meaning of the original scale while maintaining cultural relevance for the Slovak context. The resulting Slovak version was pilot tested, and feedback was incorporated to finalise the version used in the validation study.

Validation participants

Participants were recruited using a purposive sampling method, specifically targeting Slovak-speaking postnatal birth partners who had been present at the birth. A total of 434 individuals were initially contacted through selected online parenting discussion forums. Ultimately, complete SKP-BSS-R data for analysis comprised 267 fathers, yielding a response rate of approximately 61.5%. The inclusion criteria required that participants be over 18 years of age, native Slovak speakers, have a partner who had given birth within the past 5 years, and have been present at the birth. In contrast, individuals were excluded if they were under 18, not native Slovak speakers, if their partner had not given birth within the past 5 years, if they had not been present at the birth, or if their responses were incomplete.

Participant characteristics

The SKP-BSS-R data was examined for missing data and multivariate outliers. Evaluation of the SKP-BSS-R data distance from the centroid (Mahalanobis, 1936) detected five multivariate outliers (from BSS-R data) which were removed. Complete SKP-BSS-R data for analysis comprised $N = 262$ fathers (mean age 33.11 (SD 5.32), range 19–54 years). The majority of partners were married ($N = 214$, 82%), $N = 6$ (2%) were single, and the reminder either cohabiting ($N = 39$, 15%) or divorced ($N = 3$, 1%). The majority of partners had either

completed secondary education ($N = 230$, 88%) or attended university ($N = 29$,11%). A small number ($N = 3$, 1%) had completed only primary education. The majority of partners were in current employment ($N = 187$, 71%), $N = 12$ (5%) were on parental leave, $N = 60$ (23%) were self-employed and a small number were either unemployed ($N = 1$, <1%) or had some other employment ($N = 2$, <1%). Most of the fathers' partners delivered at term ($N = 230$, 88%), while $N = 16$ (6%) were pre-term and $N = 16$ (6%) post-term. Labour duration (mean) was 8.04 (SD 8.60), range 1–60 hours. Two-hundred and two (77%) had a spontaneous vaginal delivery, $N = 16$ (6%) women had an assisted vaginal delivery, $N = 24$ (9%) had an emergency Caesarean section, and $N = 19$ (7%) an elective Caesarean section. Delivery type data was not available for one participant. One-hundred and fifty-six (59%) were having their first baby.

Data analysis

Confirmatory factor analysis

Confirmatory factor analysis (CFA (Brown, 2015; Kline, 2015); was used to evaluate the three-factor measurement model of the BSS-R comprising domains of SE, PA and QC (Emmens et al., 2023; Grundstrom et al., 2023). Consistent with contemporary BSS-R translation and validation studies (Martin et al., 2018),a bifactor model comprising a primary domain of birth experience and three (uncorrelated) domains of SE, PA and QC was also evaluated. The SE and PA factors have been noted to be highly correlated suggesting a two-factor model comprising combined SE and PA items in a single factor correlated with the QC factor (Moreira et al., 2023), consequently, this two-factor model is also evaluated for model fit. A single-factor model was also evaluated. It is hypothesised that multidimensional models of the BSS-R will offer a good fit to data and the single-factor model a poor fit. Standard indices of model fit were used to evaluate models, specifically; the comparative fit index (CFI; (Bentler, 1990) >0.90, the root mean squared error or approximation (RMSEA; (Steiger & Lind, 1980) <0.08 and the square root mean residual (SRMR; (Hu & Bentler, 1999) <0.06.

Divergent validity

Divergent validity was determined by the correlation of SKP-BSS-R sub-scale, the total scale score and participant age (Abrán et al., 2024). Correlation (Pearson's r) r values between were predicted to be low ($r < 0.20$) (Akoglu, 2018).

Convergent validity

Comparison of the Pearson's r correlations between SKP-BSS-R sub-scale and total scale scores, with those reported both in the original UK-BSS-R study (Hollins Martin and Martin, 2014) and the Czech-language validated translation of the BSS-R for Czech fathers (Lochmannová et al., 2024) were used to evaluate convergent validity. The statistical approach of Diedenhofen et al. (2015) was used to empirically compare current study correlations directly with those of the Hollins Martin and Martin (2014) and Lochmannová et al. (2024) studies.

Internal consistency

Cronbach's alpha (Cronbach, 1951) was used to evaluate the internal consistency of the three SKP-BSS-R sub-scales and total scale score. Threshold values of 0.70 or higher are considered acceptable (Kline, 2000). The internal consistency of the PA sub-scale was additionally evaluated using the inter-item correlation (Pearson's *r*) since this sub-scale contains two items. An *r* range of 0.15–0.50 indicates acceptable internal consistency (Clark & Watson, 1995). SKP-BSS-R sub-scale and total scale Cronbach's alpha were compared empirically with those reported by Hollins Martin and Martin (2014) and Lochmannová et al. (2024) using the method of Diedenhofen and Musch (2016). McDonalds Omega (ω), Omega hierarchical (ωh) and Omega total (ωt) was also reported (Hayes & Coutts, 2020; Revelle & Condon, 2019).

Known-groups discriminant validity

Known-groups discriminant validity (KGDV) was evaluated by comparison of SKP-BSS-R scores as a function of birth/delivery type using between-subjects one-way analysis of variance (ANOVA). Post-hoc comparisons were undertaken using the Bonferroni test if the overall *F* value is statistically significant. Hochman et al. (2023) highlighted that multiparity may be associated with a comparatively better birth experience, a suggestion supported by recent BSS-R translation and validation studies (Abrán et al., 2024). Lochmannová et al. (2024) observed similar findings in Czech fathers, specifically in relation to the SE sub-scale. Parity was therefore evaluated with comparisons undertaken the between-subject *t*-test. A final comparison between groups differentiated by maternal term status (pre-term <37 weeks, term 37–42 weeks, post-term >42 weeks) was also undertaken using one-way ANOVA to allow comparisons with the Czech partner BSS-R translation and validation study (Lochmannová et al., 2024).

Results

Distributional characteristics

The summary and distributional characteristics of the *SKP-BSS-R* (items, sub-scales and total score) are shown in Table 1. Examination of item, sub-scale and total scale skew and kurtosis revealed no evidence of non-normality.

Confirmatory factor analysis

The CFA findings are summarised in Table 2. The tri-dimensional measurement model of the BSS-R (Hollins Martin & Martin, 2014) offered a good fit to SKP-BSS-R data as did the two-factor model. No statistically significant difference was observed between three-factor and two-factor models ($\Delta\chi^2 = 2.24$, df = 2, $p = 0.33$). The bifactor model offered an excellent fit to data.

Divergent validity

Correlations between PA, QC sub-scales, the total CZP-BSS-R score and participant age were all non-significant, $r = 0.06$, $p = 0.37$, $r = -0.03$, $p = 0.62$, $r = -0.08$, $p = 0.22$ and $r = -0.02$, $p = 0.79$, respectively.

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

Item	Item content	Domain	Mean	SD	Min	Max	Skew	Kurtosis	se
BSS-R 1	I came through childbirth experience virtually unscathed	SE	3.44	0.79	1	4	−1.41	1.46	0.05
BSS-R 2	I thought the labour was excessively long	SE	2.28	1.31	0	4	−0.40	−1.05	0.08
BSS-R 3	The delivery room staff encouraged us to make decisions about how we wanted the birth to progress	QC	2.73	1.15	0	4	−0.71	−0.30	0.07
BSS-R 4	I felt very anxious during the labour and birth	PA	2.49	1.22	0	4	−0.56	−0.68	0.08
BSS-R 5	I felt well supported by staff during the labour and birth	QC	2.88	1.00	0	4	−0.77	0.13	0.06
BSS-R 6	The staff communicated well with me during labour	QC	2.89	0.99	0	4	−0.84	0.28	0.06
BSS-R 7	I found the birth a distressing experience	SE	2.39	1.25	0	4	−0.32	−1.09	0.08
BSS-R 8	I felt out of control during the birth experience	PA	2.74	1.17	0	4	−0.78	−0.32	0.07
BSS-R 9	I was not distressed at all during labour	SE	1.60	1.08	0	4	0.50	−0.48	0.07
BSS-R 10	The delivery room was clean and hygienic	QC	3.48	0.61	1	4	−0.95	0.86	0.04
Stress	Sub-scale total		9.71	3.26	1	16	−0.29	−0.43	0.20
Attributes	Sub-scale total		5.23	2.12	0	8	−0.68	−0.22	0.13
Quality	Sub-scale total		11.98	3.01	2	16	−0.79	0.37	0.19
Total	Total score		26.92	7.08	6	40	−0.64	0.21	0.44

*Domain of the *SKP-BSS-R*. SE=Stress experienced during childbearing, PA=Partner's attributes, QC=Quality of Care.

Table 2. Confirmatory factor analysis and model fit of the *SKP-BSS-R*.

Model	χ^2	df	*p*	RMSEA	SRMR	CFI
1. Single factor	300.72	35	<0.001	0.170	0.095	0.748
2. Three-factor	71.17	32	<0.001	0.068	0.054	0.963
3. Two-factor	73.41	34	<0.001	0.067	0.054	0.963
4. Bifactor	51.99	26	0.002	0.062	0.041	0.975

No significant difference was observed between the three-factor and two-factor models using the Chi-square differences test, diff = 2.24 (df = 2), $p = 0.33$.

Table 3. Correlations of *SKP-BSS-R* sub-scales and total score and comparison with the original UK-BSS -R validation study (Hollins Martin & Martin, 2014) and the Czech translation for use in Czech-speaking fathers (Lochmannová et al., 2024.).

Scale combination	Current study *r*	UK study *r*	Czech study *r*	Z	95% CI	*p*
Stress-Attributes	0.76	0.57		3.83	(0.09–0.30)	<0.001
Stress-Quality	0.48	0.26		2.82	(0.07–0.37)	0.005
Attributes-Quality	0.48	0.35		1.73	(−0.02–0.28)	0.08
Total score-Stress	0.89	0.86		1.41	(−0.01–0.07)	0.16
Total score-Attributes	0.85	0.80		1.73	(−0.01–0.11)	0.08
Totals score-Quality	0.79	0.63		3.62	(0.07–0.25)	<0.001
Stress-Attributes	0.76		0.77	0.26	(−0.07–0.08)	0.79
Stress-Quality	0.48		0.30	2.33	(0.03–0.33)	0.02
Attributes-Quality	0.48		0.30	2.33	(0.03–0.33)	0.02
Total score-Stress	0.89		0.88	0.50	(−0.03–0.05)	0.62
Total score-Attributes	0.85		0.84	0.38	(−0.04–0.06)	0.70
Totals score-Quality	0.79		0.67	2.84	(0.03–0.21)	0.005

Convergent validity

SKP-BSS-R sub-scales and the total score comparisons with those reported by Hollins Martin and Martin (2014) and Lochmannová et al. (2024) are shown in Table 3. Statistically significant differences were observed in the SE-PA, SE-QC and QC-total

Table 4. Cronbach's alpha of *SKP-BSS-R* sub-scales and total score and comparison with the original UK BSS-R validation study (Hollins Martin & Martin, 2014) and the Czech translation for use in Czech-speaking partners (Lochmannová et al., 2024). Degrees of freedom = 1.

Subscale	Current study	UK study	Czech study	χ^2	*p*
Stress	0.70	0.71		0.04	0.88
Attributes	0.73	0.64		1.67	0.20
Quality	0.79	0.74		1.66	0.20
Total score	0.85	0.79		5.63	0.02
Stress	0.70		0.71	0.04	0.84
Attributes	0.73		0.80	1.76	0.18
Quality	0.79		0.78	0.08	0.78
Total score	0.85		0.83	0.77	0.38

Calculated to three decimal points to allow calculation with UK study.

score correlations from the original UK study. Further, SE-QC, PA-QC and QC-total score correlation were significantly different from the Czech partners BSS-R validation study.

Internal consistency

SKP-BSS-R sub-scale and total scale Cronbach's alpha's were all > 0.70 (Table 4.). Alpha for the total SKP-BSS-R score was noted to be signficantly higher than the original UK instrument development study. No other statistically significant differences were observed between the current study and the findings reported by Hollins Martin and Martin (2014) and Lochmannová et al. (2024). The Inter-item was observed to be above the Clark and Watson (1995) reference range ($r = 0.58$, $p < 0.05$). McDonalds Omega (ω), Omega hierarchical (ωh) and Omega total (ωt), were acceptable at 0.86 (95% confidence interval 0.83–0.89), 0.63 and 0.90 respectively (Nájera Catalán, 2019).

Known-group discriminant validity

Group comparisons revealed highly statistically significant differences as a function of delivery/birth type for all SKP-BSS-R sub-scales and the total score (Table 5.). Bonferroni post-hoc testing revealed that while there were no significant differences between

Table 5. Comparison of *SKP-BSS-R* total and sub-scale scores differentiated by mode of birth. Standard deviations are in parentheses, degrees of freedom = 3, 257.

BSS-R Scale	Assisted Vaginal Birth (*n* = 16) M (SD)	Unassisted Vaginal Birth (*n* = 202) M (SD)	Emergency Section (*n* = 24) M (SD)	Elective Section (*n* = 19) M (SD)	*F*	*p*	ω^2	(95%CI)	Effect size
Stress	7.50 (3.08)[a,b]	10.05 (3.04)[b,d]	7.71 (4.09)[c,d]	10.68 (3.91)[a,c]	7.31	<0.001	0.07	0.01–0.13	Small
Attributes	3.50 (2.61)[a,b]	5.50 (1.90)[b,c]	3.92 (2.50)[c]	5.37 (2.27)[a]	8.41	<0.001	0.08	0.02–0.14	Small
Quality	9.69 (3.72)[a,b]	12.13 (2.80)[b]	11.54 (4.14)	12.84 (2.06)[a]	4.08	0.007	0.03	0.00–0.08	Small
Total score	20.69 (7.94)[a,b]	27.68 (6.40)[b,d]	23.17 (9.41)[c,d]	28.89 (6.25)[a,c]	8.27	<0.001	0.08	0.02–0.14	Small

Indicates statistically significant ($p < 0.05$) Bonferroni-adjusted differences between group pairs.

Table 6. Comparison of *SKP-BSS-R* total and sub-scale scores differentiated by parity. Standard deviations are in parentheses, degrees of freedom = 260.

BSS-R Scale	Primiparous ($N = 156$)	Multiparous ($N = 106$)	95% CI	t	p	Hedges g	Hedges g (95% CI)	Effect size
Stress	9.05 (3.30)	10.70 (3.18)	0.87–2.44	4.16	0.001	0.52	0.27–0.77	Medium
Attributes	4.99 (2.29)	5.58 (1.97)	0.06–1.10	2.20	0.03	0.28	0.03–0.52	Small
Quality	11.71 (3.25)	12.38 (2.77)	−0.08–1.41	1.77	0.08	0.22	−0.03–0.47	Small
Total score	25.75 (7.63)	28.65 (5.78)	1.18–4.62	3.32	0.001	0.42	0.17–0.67	Small

Table 7. Comparison of *SKP-BSS-R* total and sub-scale scores differentiated by term status. Standard deviations are in parentheses, degrees of freedom = 2, 258.

BSS-R Scale	Term ($n = 230$) M (SD)	Pre-term ($n = 15$) M (SD)	Post-term ($n = 16$) M (SD)	F	p	ω^2	(95%CI)	Effect size
Stress	9.72 (3.28)	10.60 (2.87)	8.63 (3.16)	1.45	0.24	0.00	0.00–0.02	Very small
Attributes	5.23 (2.14)	5.87 (2.07)	4.69 (1.78)	1.20	0.30	0.00	0.00–0.02	Very small
Quality	12.07 (2.90)	11.67 (3.22)[a]	10.94 (4.27)	1.15	0.32	0.00	0.00–0.01	Very small
Total score	27.03 (7.07)	28.13 (5.64)	24.25 (8.39)	1.38	0.25	0.00	0.00–0.02	Very small

[a]indicates statistically significant ($p < 0.05$) Bonferroni-adjusted differences between group pairs.

unassisted vaginal delivery and elective Caesarean groups, these groups both had significantly higher SE, and total scale scores compared to assisted vaginal delivery and emergency Caesarean groups. The unassisted vaginal delivery group also had signficantly higher PA scores compared to the assisted vaginal delivery group and the emergency Caesarean section group, whereas the elective Caesarean section PA scores were significantly higher than the assisted vaginal delivery group only. QC sub-scale scores were signficantly higher in the unassisted vaginal delivery and elective Caesarean section groups compared to the assisted vaginal delivery group.

SE and PA sub-scale scores and the total SK-BSS-R score were signficantly higher in the multiparous group than the primiparous group (Table 6).

No statistically significant differences were observed as a function of gestational term status (Table 7).

Discussion

The present study validated the Slovak Partner version of the Birth Satisfaction Scale-Revised (SKP-BSS-R), confirming its reliability and effectiveness in assessing birth satisfaction among partners of birthing women in Slovakia.

The CFA results substantiated the validity of the SKP-BSS-R across various model configurations. Both the tri-dimensional and bi-factor models demonstrated excellent fit indices, aligning closely with the findings of the initial validation study of the BSS-R for partners (Lochmannová et al., 2024). The bi-factor model notably provided the best fit, confirming the theoretical foundation of the SKP-BSS-R as a comprehensive instrument that captures both an overarching evaluation of the birth experience and distinct dimensions such as SE, PA, and QC. Furthermore, the findings suggest that the SKP-BSS-R can be effectively utilised as both a sub-scaled (three-factor model) and total score (bi-factor model) instrument, demonstrating its versatility in capturing both general and specific aspects of partner satisfaction. Notably, the partner birth experience exhibited patterns

consistent with those identified in previous research on the BSS-R for mothers (Hollins Martin & Martin, 2014; Škodová et al., 2019), indicating a shared foundational structure underlying birth satisfaction across both respondent groups.

Divergent validity was demonstrated by the minimal and statistically non-significant correlations between participant age and the SKP-BSS-R subscales, as well as the total score. These findings align with the theoretical premise that birth satisfaction, as measured by the SKP-BSS-R, is not influenced by demographic factors such as age (Nakić Radoš et al., 2023). The absence of significant age-related correlations in the present study suggests that the SKP-BSS-R can be reliably applied across a broad age range, highlighting its versatility in diverse partner populations. This contrasts with the Czech validation study (Lochmannová et al., 2024), which reported a small but statistically significant correlation between age and the SE sub-scale. The observed difference may be influenced by sample-specific factors or differences in the healthcare systems between Slovakia and the Czech Republic, which could shape partners' perceptions of stress and satisfaction during childbirth.

The SKP-BSS-R exhibited significant correlations between its subscales and total scores, aligning partially with findings from the original UK validation study (Hollins Martin & Martin, 2014) and the Czech partner validation study (Lochmannová et al., 2024). However, notable statistically significant differences were observed in correlation coefficients, particularly in relationships between SE and PA, SE and QC, PA and QC, and QC and the total score. In Slovakia, healthcare system structures, including resource allocation, provider-patient communication styles, and cultural expectations of partner involvement, may shape these dimensions differently than in the UK or the Czech Republic. These differences suggest that while the SKP-BSS-R retains its core measurement properties, its subscales may function differently in varying healthcare contexts. Birth satisfaction is influenced by multiple interconnected factors, including the behaviour and empathy of healthcare providers, the quality and clarity of communication, the extent to which mothers and fathers are involved in decision-making, and the overall support provided during labour and postpartum (Lochmannová & Martin, 2025; Takács & Kodyšová, 2011). Building on these findings, it is important to consider how the healthcare context and cultural factors may influence the observed discrepancies in the subscale correlations. The observed discrepancies in correlation patterns, particularly involving the QC subscale, may reflect culturally and contextually specific perceptions of birth experiences. As suggested in prior research, the QC subscale might capture a culturally sensitive self-perception of care rather than an objective assessment of its absolute quality (Škodová et al., 2019; Takács et al., 2015). In Slovakia, regional disparities in healthcare infrastructure play a crucial role: smaller hospitals often lack specialised equipment and personnel, which limits access to high-quality care. Additionally, while respect for privacy and dignity is increasingly emphasised, some facilities face challenges due to shared labour rooms or outdated practices that may compromise comfort. Cultural norms and institutional factors significantly shape childbirth experiences in Slovakia.

The SKP-BSS-R not only assesses universal dimensions of birth satisfaction but also reflects culturally mediated nuances, particularly in the perception and evaluation of quality of care.

The internal consistency of the SKP-BSS-R was supported by Cronbach's alpha coefficients exceeding 0.70 for all subscales and the total score, indicating strong

reliability in the Slovak context. The high homogeneity of responses among Slovak participants, reflected in both Cronbach's alpha and McDonald's Omega values, suggests shared experiences and perceptions among men present during childbirth. This consistency underscores the instrument's robustness in capturing the specific roles, challenges, and perceptions of fathers or male partners involved in the birthing process.

Significant differences were observed across all subscales and the total score when comparing delivery types. Unassisted vaginal births and elective Caesarean sections were associated with higher SE and QC scores compared to assisted vaginal deliveries and emergency Caesarean sections. These findings are consistent with existing literature, including the Czech partner validation study (Lochmannová et al., 2024), which highlights the impact of delivery experiences on birth satisfaction scores. This consistency is observed not only in studies focusing on paternal birth experiences but also in validation research conducted on mother (e.g. Abrán et al., 2024, Nakić Radoš et al., 2023) reinforcing the SKP-BSS-R's applicability across different parental perspectives. Multiparous partners reported significantly higher SE, PA, and total SKP-BSS-R scores than primiparous partners, aligning with prior research suggesting that childbirth experience positively influences partner satisfaction (Hochman et al., 2023). The findings indicate a clear influence of prior experience on birth satisfaction, as evidenced by higher SKP-BSS-R scores among multiparous partners. In the case of first-time fathers attending childbirth, this lack of prior experience could be mitigated through comprehensive prenatal preparation and effective communication from healthcare providers. Such measures can equip fathers with the knowledge and confidence needed to actively participate in the birthing process, potentially enhancing their satisfaction and overall experience (Albanese et al., 2024).

The SKP-BSS-R provides a robust psychometric instrument for assessing birth satisfaction among partners in Slovakia, with implications extending beyond its translation and validation. Its consistency with the Czech validation study (Lochmannová et al., 2024) underscores the broader applicability of the SKP-BSS-R framework across Central Europe, highlighting its potential as a standardised tool for cross-cultural research. For practical application and further research, it is recommended to evaluate birth experiences of both fathers and mothers (Alfaro Blazquez et al., 2017).

While the study highlights the significant validity and reliability of the SKP-BSS-R, certain limitations should be acknowledged. The sample included only male partners from Slovakia, leaving the potential impact of gender and broader cultural or demographic diversity unexplored. Additionally, smaller subgroup sizes, such as those for preterm and post-term deliveries, may have constrained the scope of known-groups validity analyses. Future research could build on these findings by including more diverse populations and examining factors like socio-economic status or cultural attitudes to gain deeper insights into partner satisfaction.

Conclusion

This study successfully translated and validated the Slovak Partner version of the Birth Satisfaction Scale-Revised (SKP-BSS-R), confirming its reliability and psychometric

robustness for assessing birth satisfaction among Slovak fathers. By enabling the evaluation of birth satisfaction in fathers alongside existing maternal-focused tools, the SKP-BSS -R provides a more comprehensive understanding of the childbirth experience within families. Positive birth experiences in both parents are linked to improved psychological well-being, stronger partner relationships, and a smoother transition to parenthood. The SKP-BSS-R serves as a valuable instrument for advancing research and practice in this area, emphasising the importance of inclusive care that addresses the needs and expectations of both parents during the perinatal period.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Lucia Mazúchová http://orcid.org/0000-0001-9363-0922
Alena Lochmannová http://orcid.org/0000-0001-7822-0204
Caroline J. Hollins Martin http://orcid.org/0000-0002-3185-8611

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