

Improving the quality of childbirth care: a questionnaire-driven evaluation of women experiences

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Abstract: Introduction: Childbirth, regardless of its course, is one of the most significant events in a woman's life. In perinatal care, both medical aspects and the woman's needs for choice, information, and support are crucial. The fulfillment of these needs influences satisfaction, which is an element of care quality evaluation. The aim of this study was to analyze tools for measuring women's experiences in perinatal care, considering the subjective nature of satisfaction and factors affecting care quality.

Review methods: A literature review was conducted on validated tools and questionnaires used to assess patient-reported outcomes. Systematic searches in PubMed, Scopus, and Google Scholar databases included keywords such as "satisfaction of care," "maternal satisfaction," and "questionnaires" in Polish and English. The analysis was part of research conducted within the doctoral dissertation of one of the authors.

Conclusions: Publications highlight the use of diverse measurement tools, ranging from general satisfaction surveys to specialized questionnaires. These tools address aspects such as the quality of communication with medical staff, pain management effectiveness, and respect for patient autonomy. However, most tools have not been adapted or validated for use in Poland. The importance of employing verified measurement tools in evidence-based practices and their role in improving patient-provider relationships was also discussed.

Key words: patient satisfaction, perinatal care, Quality of Health Care.

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Introduction

Enhancing the quality of perinatal care remains a significant challenge globally and regionally [1]. In developed countries, women experience and satisfaction with perinatal care is one of the most critical indicators of high-quality women-centered care [2]. Consequently, the number of studies and tools maternity patient-reported outcome measures is rising [3, 4].



In 2016, WHO published recommendations to improve the quality of perinatal services globally, particularly focusing on developing countries. These report, published under the title *Standards for improving quality of maternal and newborn care in health facilities*, focuses on advancing the quality of care for maternal and newborn health, addressing issues of poor-quality care that contribute to preventable morbidity and mortality. It emphasizes evidence-based, patient-centered approaches to improving outcomes for both mothers and newborns. It stated also that women's satisfaction should be recognized as key quality indicator [5]. In its 2018 recommendations titled *WHO recommendations Intrapartum care for a positive childbirth experience*, a positive childbirth experience was defined as an "essential outcome" of the care provided [6]. This concept contributed to the initiation of a multicenter international project on perinatal care in Europe under the COST Action IS0907 program: *Changing childbirth cultures and consequences* which ran from 2010 to 2014 and 2014 to 2018 [7].

Satisfaction with perinatal care is now one of the most frequently cited indicators of healthcare quality during childbirth in developed countries. A review of English-language databases covering medical and biological sciences — PubMed, Scopus, and Web of Science — reveals a significant increase in the number of scientific publications on "patient satisfaction" over the past two decades [8]. Interest in this issue is steadily growing, as evidenced by the increasing number of research tools over the past decade [3, 4]. The 2014 *The Lancet's Series on Midwifery* emphasized the need to provide access to validated research tools tailored to specific cultural and social contexts, which could be used for local and international research.

The aim was to address the issue of measuring patient satisfaction with perinatal care and to present a comprehensive overview of validated tools for assessing women's childbirth experience.

Material and Methods

The review was conducted using a systematic search of the PubMed, Scopus, and Google Scholar databases. Keywords included "satisfaction of care," "maternal satisfaction," and "questionnaires". The search took place as a part of a doctoral thesis research of one of the authors. Studies published in English from 2010 to 2023 were included to capture recent developments in the field. Relevant studies published before 2010 were also considered if they involved validated and widely used scientific tools. Articles were initially screened by title and abstract, with full-text reviews conducted on those meeting inclusion criteria: peer-reviewed studies focusing on maternal and neonatal outcomes in hospital settings, English and Polish language of the study. Studies without full-text access and articles focused solely on postnatal care without delivery aspects, publications without detailed methods and findings were excluded. No meta-analysis was conducted, but a quality assessment was applied using COSMIN guidelines to ensure reliability of included studies.

Evaluation of patient satisfaction

Increasing patient expectations and growing competition in the medical services market have led providers to continually improve their services [9]. Systematic measurement of service outcomes and quality monitoring is increasingly seen as the "gold standard" in managing healthcare facilities, especially in the modern Total Quality Management (TQM) system. While patient satisfaction does not necessarily reflect the quality of all aspects of care, the relationship between them is significant for at least two reasons [10]. A systematic review of studies on patient experiences and clinical quality of care indicates a positive correlation between these two factors. Satisfaction with

care is related to the patient's sense of security and the effectiveness of medical care, regardless of the medical field. Additionally, a positive correlation has been observed with both objectively and subjectively perceived health status and adherence to medical recommendations [11]. However, the relationship between satisfaction and clinical outcomes is not causative, meaning that improving patient satisfaction does not necessarily improve clinical quality or safety. Nonetheless, it remains an integral part of medical service quality, which should always be considered [11, 12].

The general aim of assessing patient satisfaction is to identify the strengths and weaknesses of a hospital or other healthcare entity from the patient's perspective, thereby improving its functioning. Understanding patient needs and feelings and identifying areas where they diverge from expectations allow healthcare providers to tailor services to meet these expectations. It also enables to provide the high-quality services, gathering loyal and satisfied patients who are willing to recommend the facility to others [13, 14]. This can also guide changes in healthcare organization, including more efficient use of financial resources in a healthcare system.

Pregnancy and natural childbirth are physiological processes that, except in cases of complications, do not require complex medical interventions. Physiological childbirth is a transformative psychological experience that fosters a profound sense of empowerment in women. It may shift women's attention to non-medical aspects of care, such as a sense of intimacy, staff approach, psychological and emotional support, and trust. To maximize its benefits, healthcare professionals should support the physical, emotional, and social aspects of childbirth, intervening in the natural process only when necessary [15]. This perspective is significant for those studying the non-medical aspects of perinatal care. A summary of the key elements of patient satisfaction with care during childbirth is shown Table 1.

Table 1. Elements of women satisfaction with intrapartum care [2, 4–6].

Element	Description	Examples
Communication	Quality and clarity of communication between healthcare providers and the patient.	Explaining procedures, answering questions, active listening.
Respect and Dignity	Ensuring the patient feels respected and valued during childbirth.	Avoiding verbal abuse, showing cultural sensitivity, involving women in decision-making.
Emotional Support	Providing psychological and emotional reassurance during childbirth.	Encouraging words, continuous presence of a companion of choice.
Pain Management	Effective strategies for addressing and alleviating labor pain.	Availability of epidurals, use of non-pharmacological methods like massage or warm baths.
Privacy and Comfort	Maintaining the patient's privacy and creating a comfortable environment.	Use of screens, respectful handling during examinations, calming atmosphere.
Timeliness of Care	Speed and efficiency of medical attention during labor and delivery.	Prompt responses to emergencies, avoiding unnecessary delays.
Continuity of Care	Consistent care from the same providers or team throughout labor and delivery.	Familiarity with midwives or obstetricians, smooth transitions between care levels.

Element	Description	Examples
Involvement in Decision-Making	Patient participation in decisions about their care and birth plan.	Respecting birth plans, obtaining informed consent for interventions.
Postnatal Support	Assistance and guidance provided immediately after childbirth.	Breastfeeding support, addressing postpartum pain or complications.

In recent decades, healthcare systems have increasingly prioritized patients' perspectives to improve service quality, equity, and safety through patient-reported outcome measures (PROMs), which collect standardized, validated data directly from patients [2]. Survey tools for assessing satisfaction should also have assessed psychometric parameters to confirm their relevance and reliability. Subsequent application of them according to the developed procedure is also important. In addition, the survey instrument should comply with international standards and evidence-based guidelines, and data should be collected in a structured and reliable manner. Generic (general) and specific for conditions or populations tools are used to measure satisfaction with care [16]. They differ in terms of the specific purpose of their use and the focus of the survey. In this review 28 questionnaires were identified and included.

Generic Questionnaires

Generic Questionnaires broadly measure general aspects of health, quality of life, or patient satisfaction across various conditions and populations.

- *The Labor and Delivery Satisfaction Index (LADSI)* was developed in 1987 as a tool to measure women's satisfaction with their childbirth experience. The LADSI was designed to assess satisfaction based on both technical aspects of care and emotional experiences, such as feelings and perceptions of control. While the questionnaire has not undergone formal pilot testing, it has been used to compare satisfaction levels across different models of perinatal care, specifically midwife-led versus doctor-led care [17].
- *The Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ)* was developed in the late 1980s and early 1990s. Specifically, the initial publication of W-DEQ occurred in 1998, designed by researchers Klaas Wijma and Barbro Wijma to assess fear of childbirth (FOC) through expectancies (version A) and actual experiences (version B) of childbirth [18]. It uses an early-late timeframe for responses: within 2 hours after giving birth and 5 weeks later.
- *Mackey Childbirth Satisfaction Rating Scale (MCSRS)*, developed in 2004 consists of 34 questions based on a five-point Likert scale. It includes five subscales related to the participants in childbirth (the respondent, support person, baby, midwife, and physician providing care during childbirth) and one subscale assessing overall childbirth care. Adaptations and validations of this questionnaire have been conducted in the United Kingdom, the Netherlands, Spain, Belgium, and Iran [19].
- *Birth Satisfaction Scale-Revised (BSS-R)* — a British tool developed in 2014 by Caroline Hollins Martin and Colin Fleming. This scale consists of 10 items in three subscales assessing the woman's stress level during childbirth, the quality of care, and individual respondent attributes. This validated and adapted tool is currently used in the USA, Australia, Turkey, Greece, Czech Republic [20, 21].

- *Six Simple Questions (SSQ)* — a Canadian questionnaire evaluating satisfaction with childbirth care, featuring a compact, clear, and concise structure with questions based on a 7-point Likert scale. The elements assessed were selected by the authors based on a literature review. The questionnaire has a high reliability level ($\alpha = 0.86$). It is conducted twice: 48 hours after birth and during the 4th–6th week postpartum [22]. Studies adapting this tool have been conducted in Canada, the United States and Iran [23].
- *The Childbirth Experience Questionnaire (CEQ)* — a 22-items scale developed in Sweden by Dencker *et al.* and published in 2010. This questionnaire focuses on the woman's experiences in four dimensions, regarding her actions and feelings of support and safety during her first childbirth. Validation of this questionnaire has been conducted in the United Kingdom, Spain and among other countries [24, 25].
- *The Responsiveness in Perinatal and Obstetric Health Care Questionnaire (ReproQ)* — a tool based on WHO domains and guidelines for assessing patient responsiveness to medical care and non-clinical aspects related to patient-centeredness and the treatment environment such as communication, choice, continuity of care, dignity, autonomy. Published in 2015 by a team of Dutch researchers, the questionnaire consists of two parts — one completed before childbirth and one during the postpartum period [26].
- *Pregnancy and Maternity Care Patients' Experiences Questionnaire (PreMaPEQ)* — a tool developed in Norway and published in 2015, designed to assess women's experiences with obstetric care during pregnancy, childbirth, and the postpartum period [27]. It consists of 4 parts from which one is strictly about birth care and covers relationships in the ward, resources, organization, attention to partner.
- *Labour and Delivery Satisfaction Index (LADSI)* — a Canadian questionnaire from 1987 that assesses satisfaction levels based on technical aspects as well as respondents' emotions and feelings on 6-point Likert scale. Although it was not subjected to pilot testing, it is used to compare women's satisfaction with perinatal care provided by midwives (midwife-led care) versus physicians (doctor-led care) [22, 28].
- *Perceptions of Care Adjective Checklist (PCACL-R)* — a questionnaire published in the United Kingdom in 2004 that provides a two-dimensional assessment of care aspects. The questionnaire is structured with two checklists, one for positive aspects and another for negative aspects of care [29].
- *Intrapartal Care in Relation to WHO Recommendations (IC-WHO)* — based on the World Health Organization's recommendations for intrapartum care, developed in 2008. This tool assesses postpartum women's perceptions of the safety and quality of practices and care received. Indicators are evaluated on two dimensions: perceived reality (PR) of the care received and subjective importance (SI) of each item. This tool is intended exclusively for women who have vaginal deliveries [30, 31].
- *Quality from Patient Perspective — Intrapartal Specific (QPP-I)* — developed by Bodil Wilde Larsson and her team in 2010, this scale is based on a theoretical model of care quality from the patient's perspective (initially developed in 1993). It is adapted from a general satisfaction scale, Quality from the Patient's Perspective (QPP), which evaluates care without focusing on specific wards. Indicators are evaluated on two dimensions: perceived reality (PR) of the care received and subjective importance (SI) of each item. In 2002, a shortened version was created, followed by additional specific questionnaires for different departments and medical fields in subsequent years [32–34].

- *The Childbirth Perception Scale (CPS)* — a tool designed to assess women's satisfaction with care during childbirth and the first postpartum week, applicable to both hospital and home births. It was published in the Netherlands in 2014 [35].
- *The Scale for Measuring Maternal Satisfaction in Normal Birth (SMMS-normal birth)* and *The Scale for Measuring Maternal Satisfaction — Caesarean Birth* — Turkish questionnaires consisting of 42/43 items based on a five-point Likert scale, designed to evaluate care during childbirth and the early postpartum period [36].
- *Women's Experience of Maternity Care* — a British questionnaire developed in 2007 for all women giving birth within the National Health Service. It covers care during pregnancy, childbirth, postpartum hospital care, home care, and breastfeeding support [37].

Specific questionnaires

In addition to questionnaires that have been developed to examine a woman's overall satisfaction with perinatal care, there are also those specific to medical parameters and situations or technical conditions of care in obstetrics and gynecology. These include:

- *The Childbirth Trauma Index for Adolescents (CTI)* — a 14-items American scale published in 2011 to assess indicators affecting the stress response and occurrence of postpartum trauma in adolescent girls [38].
- *The Maternal Satisfaction Scale for Caesarean Section (MSS-caesarean section)* — a Canadian questionnaire from 1999 specific to cesarean section birth. It covers 3 subscales: anaesthetic, side-effects and atmosphere based in 7-point Likert scale [39].
- *Mothers Autonomy in Decision Making (MADM) scale* — a scale which evaluates women's experiences with maternity care, particularly focusing on autonomy in decision-making as developed as a patient-centered tool to measure women's autonomy in maternity care decisions. This validated instrument assesses experiences related to shared decision-making, respect for patient preferences, and the level of control women felt they had during their care. The psychometric evaluation showed that MADM is reliable and suitable for diverse populations. It provides critical insights into person-centered care, supporting evidence-based improvements in perinatal services [40].
- *The Early Labor Experience Questionnaire (ELEQ)* — a Canadian scale published in 2013 to assess only women's experience of care during the latent phase of labor [41].
- *The Preterm Birth Experience and Satisfaction Scale (P-BES)* — a British scale designed to assess the experience and satisfaction of preterm labor before 32 weeks' gestation for both mother and father of the child. Published in 2014 serving as a survey based in part on the Labour and Delivery Satisfaction Index scale and the QPP-I [42].
- *Women's Views of Birth Labor Satisfaction Questionnaire (WOMBLSQ)* — a British questionnaire from 2001 designed to assess satisfaction with care detailing location (including included home, birth home, and hospital ward) and model of perinatal care delivery assessing 11 variables in 32 test questions; the tool has also been adapted in Spain [43].
- *The Labor Agency Scale (LAS)* — a 29-item questionnaire based on 7-point Likert scale to assess the sense of personal control during childbirth [44].

Health Related Quality of Life (HRQL) specific tools are also used to measure quality of life of pregnant and postpartum women and related factors. These tools typically measure a variety of

factors, including physical functioning, emotional health, social well-being, and overall satisfaction with life during pregnancy and the postpartum period. Key domains often assessed include fatigue, pain, mental health (such as anxiety and depression), body image, and the ability to carry out daily activities. These are:

- *Mother Generated Index* (MGI) — a research tool published in 2002, allowing the collection of spontaneous and subjective opinions and feelings of women regarding pregnancy and newborn, as well as the identification of factors influencing women's quality of life. It also reflects the difference between expectations about pregnancy and reality. Due to its nature, it does not require linguistic validation, only a translation of the instructions. It consists of three parts where respondents: list aspects of life affected by pregnancy, evaluate the influence as positive or negative, and assign appropriate weights to each. It has been used in countries including the Czech Republic, Germany, India, Brazil, and China. The Polish version of the questionnaire was first used in 2009 to assess the quality of life of women hospitalized during pregnancy [45]. The tool uses individual interview techniques and quantitative methods to calculate the index value. The authors of the questionnaire are Andrew Symon and Danny Ruta (Scotland) [46].
- *Multidimensional Health Locus of Control Scales — labour and delivery* (MHLC-LD) — a tool published in 2011 that assesses the locus of control specific to the health aspects of labor and delivery [47].
- *Maternal Adjustments and Maternal Attitude* (MAMA) — a questionnaire developed in 1984. This scale measures maternal adjustments and attitudes towards motherhood, relationships, and body image during pregnancy and postpartum. The MAMA scale has been widely validated and adapted in multiple languages for diverse populations [48].

Most of this questionnaires has the timeframe to answer within first days postpartum or even prior discharge. Some of them are possible to use up to 1 [24, 26] to 12 months [41] after giving birth. So far, none of the above tools, except for the MGI and QPP-I, have been adapted and validated for commercial and scientific research in Poland [46, 34]. However, in 2017, "The Tool for Assessing the Quality of Outpatient Care for Mothers and Newborns during Pregnancy and the Postpartum Period" was published. Its purpose is to assist in assessing the quality of outpatient care provided to patients during physiological and complicated pregnancies, in the postpartum period, and in outpatient care for newborns, as well as to evaluate the technical and organizational conditions of the facility. It is intended for nationwide assessment of the quality of care for mothers and newborns. This tool covers various aspects of care, diagnostics, and treatment during pregnancy and the postpartum period, as well as a section directed toward medical staff [49]. Still, hospitals most commonly use non-standardized, self-designed questionnaires to assess the quality of care from the patient's perspective, which complicates the comparison of results at both national and international levels.

Conclusions

Increasing knowledge about the importance of the quality in perinatal care have led to a growing number of studies on this topic. Exploring women's perceptions of care, emotional well-being, and satisfaction with childbirth experiences with perinatal care is a critical factor in improving maternal healthcare services. Accurate measurement of patient satisfaction is essential for continuously improving the quality of perinatal care.

The article underscores the value of general surveys to specialized tools addressing communication, pain management, and autonomy in evidence-based practice and their potential to enhance patient-provider relationships and perinatal care quality. The analysis of various measurement tools can support healthcare professionals, management staff, and researchers in better understanding patient needs and enhancing the quality of medical services.

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Conflict of interest

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References

1. Martin C.R., Hollins Martin C., Redshaw M.: The Birth Satisfaction Scale-Revised Indicator (BSS-RI). *BMC Pregnancy Childbirth*. 2017 Aug 29; 17 (1): 277. doi: 10.1186/s12884-017-1459-5.
2. Bull C., Teede H., Carrandi L., Rigney A., Cusack S., Callander E., et al.: Evaluating the development, woman-centricity and psychometric properties of maternity patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs): A systematic review protocol. *BMJ Open*. 2022 Feb; 12 (2): e058952. doi: 10.1136/bmjopen-2021-058952.
3. Nilvér H., Begley C., Berg M.: Measuring women's childbirth experiences: A systematic review for identification and analysis of validated instruments. *BMC Pregnancy Childbirth*. 2017 Jun 29; 17 (1): 14–21. doi: 10.1186/s12884-017-1356-y.
4. Konieczka J., Tomczyk K., Wilczak M., Chmaj-Wierzbowska K.: Factors Affecting Women's Assessment and Satisfaction with Their Childbirth. *Medicina (Kaunas)*. 2024 Jan; 60 (1): 86. doi: 10.3390/medicina60010086.
5. World Health Organization. Standards for improving quality of maternal and newborn care in health facilities. <https://www.who.int/publications/i/item/9789241511216> (accessed 2024 Dec 3).
6. World Health Organization. WHO recommendations: Intrapartum care for a positive childbirth experience. <https://www.who.int/publications/i/item/9789241550215> (accessed 2024 Oct 23).
7. *Babies Born Better*. <https://www.babiesbornbetter.org> (accessed 2024 Nov 3).
8. Ferreira D.C., Vieira I., Pedro M.I., Caldas P., Varela M.: Patient satisfaction with healthcare services and techniques used for its assessment: A systematic literature review and bibliometric analysis. *Healthcare*. 2023 Mar; 11 (5): 639. doi: 10.3390/healthcare11050639.
9. Crisafulli B., Wasil M., Singh J., Benoit S.: Managing patient expectations through understanding health service experiences. *BJMP*. 2019 Jun; 12 (2): a014.
10. Calmus S., Thuong C.T., Morin S.: Quality of care as perceived by patients — PROMs and PREMs indicators: Panorama of experiences in other countries and main lessons learned. 2021. https://www.has-sante.fr/jcms/p_3281627/en/quality-of-care-as-perceived-by-patients (accessed 2024 Nov 13).
11. Sargent S.K., Wurz J., Dworkin E., Phipps M.G., Feldman N., Teal S.B.: The Patient Experience and Safety. *Obstet Gynecol Clin North Am*. 2019 Jun; 46 (2): 199–214. doi: 10.1016/j.ogc.2019.01.001.
12. Dewan T., Mackay L., Asaad L., Buchanan F., Clayton O., Finlayson F.: Experiences of Inpatient Healthcare Services Among Children with Medical Complexity and Their Families: A Scoping Review. *Health Expectations*. 2024 Oct; 27 (5): e14178. doi: 10.1111/hex.14178.
13. Setyawan F.E.B., Supriyanto S., Ernawaty E., Lestari R.: Understanding patient satisfaction and loyalty in public and private primary health care. *J Public Health Res*. 2020 Jun; 9 (2): 1823. doi: 10.4081/jphr.2020.1823.

14. Al-Abri R., Al-Balushi A.: Patient satisfaction survey as a tool towards quality improvement. *Oman Med J*. 2014 Jan; 29 (1): 3–7. doi: 10.5001/omj.2014.02.
15. Olza I., Leahy-Warren P., Benyamini Y., Kazmierczak M., Spyridou A., Hall P.J.: Women's psychological experiences of physiological childbirth: a meta-synthesis. *BMJ Open*. 2018 Oct; 8 (10): e020347. doi: 10.1136/bmjopen-2017-020347.
16. Surratt N., O'Rourke P.: The Labor and Delivery Satisfaction Index: A tool for measuring satisfaction with childbirth care. *J Perinat Neonatal Nurs*. 2009 Jun; 23 (2): 157–165. <https://doi.org/10.1097/JPN.0b013e3181a2e92f>.
17. Lomas J., Dore S., Enkin M., Mitchell A.: The Labor and Delivery Satisfaction Index: the development and evaluation of a soft outcome measure. *Birth*. 1987 Sep; 14 (3): 125–129. doi: 10.1111/j.1523-536x.1987.tb01472.x.
18. Wijma K., Wijma B., Zar M.: Psychometric aspects of the W-DEQ; a new questionnaire for the measurement of fear of childbirth. *J Psychosom Obstet Gynaecol*. 1998 Jun; 19 (2): 84–97. doi: 10.3109/01674829809048501.
19. Blazquez A.R., Corchon S., Ferrer Ferrandiz E.: Validity of instruments for measuring the satisfaction of a woman and her partner with care received during labour and childbirth: Systematic review. *Midwifery*. 2017 Dec; 55: 103–112. doi: 10.1016/j.midw.2017.09.014.
20. Lochmannova A., Hollins Martin A., Martin C.: Translation and validation of the Czech Partner version of the Birth Satisfaction Scale-Revised (BSS-R). *J Reprod Infant Psychol*. 2024 Feb; 9: 1–15. doi: 10.1080/02646838.2024.2401828.
21. Vivilaki V., Zemperligkou E., Iliopoulou E., Tsartsara E., Sapountzi-Krepia D., Ellis G.: The reversed Birth Satisfaction Scale: translation, adaptation and validation for a Greek sample. *Eur J Midwifery*. 2017 Sep; 1: 3. doi: 10.18332/ejm/77166.
22. Harvey S., Rach D., Stainton C., Jarrell J., Brant R.: Evaluation of satisfaction with midwifery care. *Midwifery*. 2002 Dec; 18 (4): 260–267. doi: 10.1054/midw.2002.0317.
23. Pham A., Sardana A., Sparks A.D., Gimovsky A.C.: The Association of Maternal Satisfaction with Childbirth by Length of Second Stage. *Am J Perinatol*. 2022 May; 41 (S01): e369–376. doi: 10.1055/s-0042-1754412.
24. Martínez-Borba V., Suso-Ribera C., Catalá P., Marín D., Puente C.: Psychometric Properties of the Childbirth Expectation Questionnaire in a Sample of Spanish Pregnant Women. *Clínica y Salud*. 2022; 33 (1): 1–9. doi: 10.5093/clysa2021a10.
25. Conesa Ferrer M.B., Canteras Jordana M., Ballesteros Meseguer C., Carrillo García C., Martínez Roche M.E.: Comparative study analysing women's childbirth satisfaction and obstetric outcomes across two different models of maternity care. *BMJ Open*. 2016 Aug 26; 6 (8): e011362. doi: 10.1136/bmjopen-2016-011362.
26. van der Kooy J., Valentine N.B., Birnie E., Vujkovic M., de Graaf J.P., Denktas S., et al.: Validity of a questionnaire measuring the world health organization concept of health system responsiveness with respect to perinatal services in the dutch obstetric care system. *BMC Health Serv Res*. 2014 Dec 3; 14: 622. doi: 10.1186/s12913-014-0622-1.
27. Sjetne I.S., Iversen H.H., Kjøllesdal J.G.: A questionnaire to measure women's experiences with pregnancy, birth and postnatal care: instrument development and assessment following a national survey in Norway. *BMC Pregnancy Childbirth*. 2015 Aug 21; 15: 182. doi: 10.1186/s12884-015-0611-3.
28. Bernitz S., Øian P., Sandvik L., Blix E.: Evaluation of satisfaction with care in a midwifery unit and an obstetric unit: a randomized controlled trial of low-risk women. *BMC Pregnancy Childbirth*. 2016 Jun 18; 16 (1): 143. doi: 10.1186/s12884-016-0932-x.
29. Redshaw M., Martin C.R.: Validation of a perceptions of care adjective checklist. *J Eval Clin Pract*. 2009; 15 (2): 281–288. doi: 10.1111/j.1365-2753.2008.00995.x.
30. Sandin-Bojo A.K., Larsson B.W., Hall-Lord M.L.: Women's perception of intrapartum care in relation to WHO recommendations. *J Clin Nurs*. 2008, 17 (22): 2993–3003. doi: 10.1111/j.1365-2702.2007.02123.x.
31. Sandin Bojö A.K., Hall-Lord M.L., Axelsson O., Udén G., Wilde Larsson B.: Midwifery care: development of an instrument to measure quality based on the World Health Organization's classification of care in normal birth. *J Clin Nurs*. 2004 Jan; 13 (1): 75–83. doi: 10.1046/j.1365-2702.2003.00835.x.

32. Wilde B., Larsson G., Larsson M., Starrin B.: Quality of care. Development of a patient-centred questionnaire based on a grounded theory model. *Scand J Caring Sci.* 1994; 8 (1): 39–48. doi: 10.1111/j.1471-6712.1994.tb00223.x.
33. Wilde Larsson B., Larsson G.: Development of a short form of the Quality from the Patient's Perspective (QPP) questionnaire. *J Clin Nurs.* 2002 Sep; 11 (5): 681–687. doi: 10.1046/j.1365-2702.2002.00640.x.
34. Wilde-Larsson B., Sandin-Bojö A.K., Starrin B., Larsson G.: Birthgiving women's feelings and perceptions of quality of intrapartal care: a nationwide Swedish cross-sectional study. *J Clin Nurs.* 2011 Apr; 20 (7–8): 1168–1177. doi: 10.1111/j.1365-2702.2010.03393.x.
35. Truijens S.E., Wijnen H.A., Pommer A.M., Oei S.G., Pop V.J.: Development of the Childbirth Perception Scale (CPS): perception of delivery and the first postpartum week. *Arch Womens Ment Health.* 2014 Oct; 17 (5): 411–421. doi: 10.1007/s00737-014-0420-0.
36. Gungor I., Beji N.K.: Development and psychometric testing of the scales for measuring maternal satisfaction in normal and caesarean birth. *Midwifery.* 2012 Jun; 28 (3): 348–357. doi: 10.1016/j.midw.2011.03.009.
37. Redshaw M., Martin C.R., Savage-McGlynn E., Harrison S.: Women's experiences of maternity care in England: preliminary development of a standard measure. *BMC Pregnancy Childbirth.* 2019 May 14; 19 (1): 167. doi: 10.1186/s12884-019-2284-9.
38. Anderson C.: Construct validity of the childbirth trauma index for adolescents. *J Perinat Educ.* 2011 Spring; 20 (2): 78–90. doi: 10.1891/1058-1243.20.2.78.
39. Morgan P.J., Halpern S., Lo J.: The development of a maternal satisfaction scale for caesarean section. *Int J Obstet Anesth.* 1999 Jul; 8 (3): 165–170. doi: 10.1016/s0959-289x(99)80132-0.
40. Vedam S., Stoll K., Martin K., Rubashkin N., Partridge S., Thordarson D., et al.: Changing Childbirth in BC Steering Council. The Mother's Autonomy in Decision Making (MADM) scale: Patient-led development and psychometric testing of a new instrument to evaluate experience of maternity care. *PLoS One.* 2017 Feb 23; 12 (2): e0171804. doi: 10.1371/journal.pone.0171804.
41. Janssen P.A., Desmarais S.L.: Development and psychometric properties of the Early Labour Experience Questionnaire (ELEQ). *Midwifery.* 2013 Mar; 29 (3): 181–189. doi: 10.1016/j.midw.2012.05.012.
42. Sawyer A., Rabe H., Abbott J., Gyte G., Duley L., Ayers S.: Very Preterm Birth Collaborative Group: Measuring parents' experiences and satisfaction with care during very preterm birth: a questionnaire development study. *BJOG.* 2014 Sep; 121 (10): 1294–1301. doi: 10.1111/1471-0528.12925.
43. Smith L.F.: Development of a multidimensional labour satisfaction questionnaire: dimensions, validity, and internal reliability. *Qual Health Care.* 2001 Mar; 10 (1): 17–22. doi: 10.1136/qhc.10.1.17.
44. Hodnett E.D., Simmons-Tropea D.A.: The Labour Agency Scale: psychometric properties of an instrument measuring control during childbirth. *Res Nurs Health.* 1987 Oct; 10 (5): 301–310. doi: 10.1002/nur.4770100503.
45. Nowakowska-Głąb A., Maniecka-Bryła I.: Mother Generated Index — nowy miernik oceny jakości życia kobiet w ciąży i po porodzie [Mother Generated-Index — a new indicator of antenatal and postnatal quality of life]. *Przegl Epidemiol.* 2010; 64 (1): 133–138.
46. Symon A., MacDonald A., Ruta D.: Postnatal quality of life assessment: introducing the mother-generated index. *Birth.* 2002 Mar; 29 (1): 40–46. doi: 10.1046/j.1523-536x.2002.00154.x.
47. Stevens N.R., Hamilton N.A., Wallston K.A.: Validation of the multidimensional health locus of control scales for labor and delivery. *Res Nurs Health.* 2011 Aug; 34 (4): 282–296. doi: 10.1002/nur.20446.
48. Kumar R., Robson K.M., Smith A.M.: Development of a self-administered questionnaire to measure maternal adjustment and maternal attitudes during pregnancy and after delivery. *J Psychosom Res.* 1984; 28 (1): 43–51. doi: 10.1016/0022-3999(84)90039-4.
49. Narzędzie do oceny jakości opieki ambulatoryjnej nad matką i noworodkiem w trakcie ciąży i w pőłogu — adaptacja do polskiego kontekstu [The Tool for Assessing the Quality of Outpatient Care for Mothers and Newborns during Pregnancy and the Postpartum Period — adaptation to the Polish context]. 2017. <https://www.gov.pl/web/zdrowie/narzedzie-do-oceny-jakosci-opieki-ambulatoryjnej-nad-matka-i-noworodkiem-w-trakcie-ciazy-i-w-pologu>.