

Establishing Methods to Assess Baby-Friendly Hospital Initiative Compliance Using the Global Standards and Women's Self-Reported Experiences

Journal of Human Lactation
2024, Vol. 40(3) 405–412
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DOI: 10.1177/08903344241252644
journals.sagepub.com/home/jhl



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Abstract

The World Health Organization recommends assessing compliance with key clinical practices of the Baby-Friendly Hospital Initiative (BFHI; Steps 3–9) using birthing women's self-reports. Globally, compliance is mainly assessed using health staff reports, and the use of women's self-reports in selected countries has deviated from the Global Standards for the BFHI. Therefore, we aimed to provide insight into the appropriate method of incorporating women's self-reports in assessing compliance with Steps 3–9 of the BFHI. We developed questions and coding algorithms for assessing compliance with Steps 3–9 based on Global Standards for BFHI compliance, and implemented them via a cross-sectional survey of 302 women who gave birth to a live baby in Sri Lankan hospitals. Compliance with specific practices within each of Steps 3–9 and overall compliance with each step were described as percentages. Compliance with specific practices and each BFHI Step ranged from 15.9%–100% and 7.0%–100%, respectively. Our findings particularly emphasize the potentially enhanced usefulness and robustness of assessing all specific practices within BFHI key clinical steps and not focusing only on one practice within a step, to derive more useful health service guidance globally for capturing BFHI compliance and its impact on breastfeeding outcomes. This method could be translated across multiple settings globally. It would enable more specific identification of care advancements required by health services to improve the effectiveness of breastfeeding support and address the prevailing undervaluing and under-use of women's experiential data to evaluate and guide health service improvement.

Keywords

baby-friendly hospital initiative, breastfeeding, breastfeeding support, care experiences, global standards, health services, monitoring tool, postpartum women.

Background

The Baby-Friendly Hospital Initiative (BFHI) is an internationally recognized guideline that comprises 10 steps to support short and long-term breastfeeding, including key clinical practices in Steps 3–10 (World Health Organization [WHO] & United Nations Children's Fund [UNICEF], 2018). The WHO recommends that BFHI compliance is evaluated by assessors independent of health facilities, including interviews with health staff and birthing women (WHO & UNICEF, 2018). However, in most countries, BFHI compliance is primarily assessed using health staff self-report (International Baby Food Action Network [IBFAN]-Asia, 2019). Although there are some examples of using women's self-reports of care received to assess BFHI compliance (Agbozo et al., 2020; Araújo et al., 2019; Çaylan et al., 2022; Spaeth et al., 2018), there has been no research to establish methods to measure this systematically and comprehensively according to existing recommendations. Without this, the

implementation and effectiveness of BFHI for improving breastfeeding rates cannot be adequately assessed. In this paper, we provide insights for assessing BFHI compliance

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Date submitted: March 10, 2023; Date accepted: April 17, 2024.

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using women's self-reported experiences guided by the Global Standards of BFHI compliance (WHO & UNICEF, 2018).

We propose specific methods required for assessing compliance with BFHI steps and examining the BFHI policy more closely. We share the practicalities of trans-positioning questions from the hospital criteria for key clinical practices given in the Global Standards of BFHI compliance (WHO & UNICEF, 2018) to questions that can be asked to birthing people, and applying those methods to assess compliance in a Sri Lankan cohort.

The BFHI was launched in Sri Lanka in 1992 in collaboration with UNICEF. The IBFAN-Asia (2019) reported that 94% of government and private health facilities in Sri Lanka were designated as baby-friendly between 2012 and 2017, and also ranked Sri Lanka highly for the quality of BFHI implementation based on the outcome of the World Breastfeeding Trend Initiative (WBTi) assessment conducted in 2018. However, the same WBTi 2018 report indicated that monitoring of BFHI compliance is not standardized nationally, it is primarily implemented only at the hospital level, and it relies on motivated individual administrators (IBFAN-Asia, 2019).

There is limited evidence to assess BFHI compliance within specific Sri Lankan health facilities. Existing evidence has exclusively been derived from health staff reporting (IBFAN-Asia, 2019) and provides inconsistent BFHI compliance information (Lokeesan et al., 2022). For example, compliance with immediate and uninterrupted skin-to-skin contact in labor rooms after giving birth (Step 4) ranges from 1.8%–83.3%; and postnatal wards' provision of breastfeeding support (Step 5) ranges from 23.1%–90.0% across Sri Lankan health facilities (Bandara et al., 2012; Fernando & Prathapan, 2017). Monitoring of BFHI by hospital staff who have an interest in positive evaluation results (Rowel, 2020) may create self-report bias, which can lead to overestimation of compliance in some health facilities.

Contradictory international and national evidence regarding the implementation of and compliance with BFHI in Sri Lanka means that an accurate and consistent picture of BFHI in Sri Lanka remains elusive. Through this paper, we provide our innovative method as a model for measuring and reporting BFHI compliance using self-reports from birthing women consistently in Sri Lankan health settings, and to inform the potential wider application of assessing BFHI compliance based on recommended standards for assessment in global health settings.

The Clinical Innovation

We developed a tool to assess compliance with BFHI key clinical practices using women's self-reported experiences of BFHI care received during their postpartum stay in a hospital. This period is critical for initiating breastfeeding and establishing exclusivity as soon as possible after giving birth,

Key Messages

- Globally, compliance with key clinical practices of the Baby-Friendly Hospital Initiative (BFHI) are assessed primarily based on reporting from health staff.
- Transpositioning the Global Standards of BFHI compliance into women-centric compliance measures produces a method for assessing compliance using women's self-reported care experiences.
- Applying this method in health facilities may enable health services to review existing compliance monitoring practices and to adopt a reliable and less biased method for supplementing

ensuring long-term exclusive breastfeeding. We included key clinical BFHI practices outlined in Steps 3–9 in our tool, as women and infants directly experience care across these practices up to and including their postpartum hospital stay. At that time of measurement, these steps are therefore appropriate for self-reported assessment from maternity service users. Also, breastfeeding support practices within Steps 3–9 of the BFHI are the responsibility of health services up to and immediately after birth, and are critical for establishing breastfeeding during the early postpartum hours in hospitals (Table 1).

As described in Table 1, we converted the compliance criteria given in the Global Standards of BFHI compliance (WHO & UNICEF, 2018) to self-reported measures for individual women. For example, within Step 3, the compliance criteria of “at least 80% of women who received prenatal care also received prenatal counseling on breastfeeding” was converted to individual criteria of “received breastfeeding counseling” (Table 1). We developed questions and possible responses to address the self-reported BFHI care measures related to each of the specific practices within Steps 3–9. Some of the existing surveys and reports related to BFHI care and infant feeding (Begley et al., 2008; Sakala et al., 2018; Toronto Public Health Division, 2017; WHO, 1999) were used to guide question and response development with appropriate wording to reflect the BFHI practices. Compliance measures related to each of the specific BFHI practices within Steps 3–9 were addressed using single or multiple questions as given in Table 1.

Compliance with specific practices within BFHI steps was determined with the dichotomous measures of “Yes” and “No” based on the responses that indicated women received care related to that specific practice (Table 1). Responses that reflect that women received care or women received care/advice, but that they do not remember specifics about it were classified as “Yes, women received care.” When multiple responses in a question reflected the compliant care of a BFHI practice, compliance with that specific

Table 1. Measuring Baby-Friendly Hospital Initiative (HI) Compliance (Steps 3–9) for a Self-Reported Care Assessment.

HI Key Clinical Steps and Global Standards of Compliance	Compliance Measures Derived for Women's Self-Reported Care Received	Survey Items and Response Options ^a	Criteria to Determine Compliance With HI Care ^b
<p>Step 3 – Antenatal information At least 80% of women who received prenatal care received prenatal counseling on BF.</p> <p>At least 80% of women had any two BF topics discussed with them:</p> <ul style="list-style-type: none"> the importance of BF global recommendations on exclusive BF the importance of immediate and sustained skin-to-skin contact the importance of early initiation of BF the importance of rooming-in the basics of good positioning and attachment recognition of feeding cues <p>Step 4 – Immediate postnatal care At least 80% of women had skin-to-skin contact with their baby within 5 min after birth and lasted 1 hr or more unless there was a medical indication for delayed contact.^c</p> <p>At least 80% of women's babies were put to the breast within 1 hr after birth unless there were medical indications for not initiating BF early.</p>	<p>Received BF counseling.</p> <p>Received on any two of the following:</p> <ul style="list-style-type: none"> the importance of BF, pros and cons of exclusive BF risks of supplementation risks of using bottles skin-to-skin contact <p>Had Skin-to-skin contact within 5 min of birth</p>	<p>Q1. Attended antenatal clinic and received breastfeeding counseling.</p> <ol style="list-style-type: none"> Yes, attended and received counseling. Yes, attended but did not receive counseling. No, did not attend antenatal clinic. <p>Q2-Q7. Educated (either verbal/written information)</p> <ol style="list-style-type: none"> Yes, only once (verbal) Yes, more than once (verbal) Yes, but do not remember how many times (verbal) Yes, posters were available Not advised at all (verbal)/no posters available Do not remember whether health staff advised, or posters were available 	<p>1. Yes, I attended and received breastfeeding counseling, OR</p> <p>2. No, did not attend antenatal clinic</p> <p>1. Yes, only once, OR</p> <p>2. Yes, more than once, OR</p> <p>3. Yes, but I do not remember how many times, OR</p> <p>4. Yes, posters were available</p>
<p>Step 5 – General BF support At least 80% of BF women were offered assistance with BF by health staff within 6 hr of birth.</p> <p>At least 80% of BF women can demonstrate how to position their baby for BF.</p> <p>At least 80% of BF women can describe at least two ways to facilitate milk production.</p>	<p>Received support to manage BF problems</p> <p>Received advice on positioning for BF</p> <p>Received advice on latching for BF</p>	<p>Q8. Held baby for the first time</p> <ol style="list-style-type: none"> Less than 1 min after birth 1 min after birth 2–5 min after birth 6–30 min after birth 31–60 min after birth More than 1 hr but less than 2 hr after birth More than 2 hr but less than 6 hr Do not know/do not remember Have not held yet <p>Q9. Had Skin-to-Skin contact (SSC)</p> <ol style="list-style-type: none"> Yes / b. No / c. Do not know <p>Q10. The baby was placed on the breast</p> <ol style="list-style-type: none"> Less than 1 min after birth 10–30 min after birth 31–60 min after birth More than 1 hr but less than 2 hr after birth More than 2 hr Do not know/do not remember Not yet placed <p>Q11. Had breastfeeding difficulties</p> <ol style="list-style-type: none"> Yes / b. No <p>Q12. Received support to manage breastfeeding difficulties</p> <ol style="list-style-type: none"> Yes / b. No / c. Do not remember <p>Q13. Advice on positioning</p> <ol style="list-style-type: none"> Baby's body should turn towards the mother The baby's trunk and head should be aligned The baby's mouth should be at nipple level The baby's head should be tilted back with a supporting hand Do not remember what they explained Do not remember whether they explained or not Did not explain anything 	<p>1. Held baby within 1 min of birth and "had" SSC, OR</p> <p>2. Held baby 1 min after birth and "had" SSC, OR</p> <p>3. Held baby 2–5 min after birth and "had" SSC, OR</p> <p>4. Held baby 6–30 min after birth and "had" SSC (M), OR</p> <p>5. Held baby 1–2 hr after birth and "had" SSC (M), OR</p> <p>6. Held baby 2–6 hr after birth and "had" SSC (M), OR</p> <p>7. Have not held yet (M)</p> <p>Yes, less than 1 min after birth, OR</p> <p>Yes, 10–30 min after birth, OR</p> <p>Yes, 31–60 min after birth, OR</p> <p>Yes, > 1 hr but < 2 hr after birth (M), OR</p> <p>Yes, > 2 hr (M), OR</p> <p>Yes, but not yet placed (M)</p> <p>1. Had difficulties, and "Yes" support was given, OR</p> <p>2. Had difficulties, but "No" support was requested, OR</p> <p>3. No difficulties in breastfeeding</p> <p>1. All "a, c, and d," OR</p> <p>2. Yes, but do not remember what was explained</p>

(continued)

Table 1. (continued)

HI Key Clinical Steps and Global Standards of Compliance	Compliance Measures Derived for Women's Self-Reported Care Received	Survey Items and Response Options ^a	Criteria to Determine Compliance With HI Care ^b
		<p>Q14. Advice on latching</p> <ol style="list-style-type: none"> Comfortable and not painful The baby is sucking deeply and regularly Baby takes the whole nipple and a large amount of the areola Baby's chin is pressed into your breast, and the nose is clear Baby's lips are turned out over your breast Nipples stay in good condition and have no damage Baby is draining properly, so the breast feels floppy after feeding Do not remember whether they explained it or not Did not explain anything <p>Q15. Advice on the techniques to increase milk secretion</p> <ol style="list-style-type: none"> Position and attach the baby correctly Feed the baby often Feed the baby whenever feels the fullness of breasts Allow the baby to get fed for as long as wants to Do not remember what they instructed Do not remember whether they instructed or not Did not instruct anything <p>Q16. Supplements were given, and Q17. Recommended by</p> <ol style="list-style-type: none"> Yes, recommended by health staff Yes, I decided to give/family members recommended giving it. No, supplements were not given. Do not know/do not remember whether supplements were given. <p>Q18. Staying with baby</p> <ol style="list-style-type: none"> Yes, all the time Yes, some of the time Not at all <p>Q19. Advice on rooming-in</p> <ol style="list-style-type: none"> You must be with the baby for 24hr Rooming-in helps to recognize the hunger cues of the baby Rooming-in enables frequent feeding Do not remember what they advised Do not remember whether they advised or not Did not advise anything <p>Q20. Advice on responsive feeding</p> <ol style="list-style-type: none"> Feed whenever your baby cries or seems hungry Feed on your schedule or routine Feed on a schedule determined by a health staff Feed for a limited time Feed for as long as your baby wants to Feed as long as breast milk comes Feed until your breasts are relaxed Do not remember what they said Do not remember whether they said or not Did not say anything <p>Q21. Supplements fed with</p> <ol style="list-style-type: none"> Bottle/teats / b. Cup / c. Spoon / d. Syringe / e. Do not know/do not remember <p>Q22. Gave pacifiers to baby</p> <ol style="list-style-type: none"> Yes, once / b. Yes, more than once / c. Not at all / d. Do not know 	<p>1. All "c, d, and e," OR</p> <p>2. Yes, do not remember what was advised</p> <p>1. Any two among "a, b, c, and d," OR</p> <p>2. Yes, but do not remember what was instructed</p> <p>1. Yes, health staff recommended (MI), OR</p> <p>2. No, supplements were not given</p> <p>1. Yes, all the time, OR</p> <p>2. Yes, some of the time (MI), OR</p> <p>3. Not at all (MI)</p> <p>1. Only a, OR</p> <p>2. "a, and (b and/or c)," OR</p> <p>3. Yes, but I do not remember what was advised</p> <p>1. Both "a and e," OR</p> <p>2. Do not remember what was advised</p> <p>1. Cup AND/OR</p> <p>2. Spoon AND/OR</p> <p>3. Syringe</p> <p>1. Not at all</p>
	Received advice on increasing milk secretion		
	Infant was given no supplementation		
Step 6 – No Supplementation At least 80% of infants received only breast milk throughout their stay at the facility unless medically indicated.			
Step 7 – Rooming-in At least 80% of women's babies stayed with them always, without separation lasting for more than 1 hr. At least 80% of women were encouraged to stay close to their infants day and night.	Practiced rooming-in		
	Received advice about rooming-in		
Step 8 – Responsive feeding At least 80% of women can describe at least two feeding cues. At least 80% of BF women are advised to feed their babies as often and for as long as the infant wants.	Received advice on responsive feeding		
Step 9 – No bottle, teat, pacifiers At least 80% of BF women were taught about the risks of using bottles, teats, and pacifiers	Women received/recommended no bottles for feeding infants ^{6a} Infants were given no pacifiers ^{6b}		

Note. BF = breastfeeding; compliant care = these were categorized as "Yes-received compliant care"; HI = hospital initiative; MI = medical indication (participants who had a medical reason for not receiving a particular type of care) SSC = skin-to-skin contact. This table describes the rules that were developed in this study based on Global Standards of HI compliance, to measure the compliance according to participants' responses to each question related to specific practices of each of Steps 3–9 of HI.

^aThis column represents the survey questions and responses given in Table S1 (see the online supplemental material). Question numbers given for compliance measures in this column represent the relevant questions from Table S1. Therefore, some of the measures were given more than one question number, that is, Q2–Q7 (for breastfeeding information) means Q2–Q7 from Table S1 collectively representing the compliance measure given in this column, and responses related to each question have been collectively reported under the survey items in this column.

^bAmong the response options given in the column labeled "survey items," responses other than given in the column labeled "criteria to determine compliant care" were categorized as "no compliance" with relevant HI practices.

^cLength of the time that the skin-to-skin contact lasted was not assessed to determine compliance with skin-to-skin contact.

^dCompliance criteria of Step 9 of HI were derived to assess compliance with that step within the health facilities. It is different from the measures in Global Standards of HI compliance which is more likely to be implemented after discharge from the hospital.

^eWhether participants received bottles from health staff or were recommended by health staff to use bottles was indirectly measured via the question of feeding supplement (if infant received supplements) with?

practice was determined if participants provided any one response among all applicable responses as given in Table 1. However, for some practices, such as receiving advice on latching, compliance was determined only if participants provided all responses that reflected the care compliant with that practice. Moreover, responses that indicated women did not receive care or women do not remember whether they received care or received any advice from health staff were classified as “No, women did not receive care.” Overall compliance with a BFHI clinical step (Steps 3–9) was defined as participants having received care that was compliant with every practice within that step.

We defined women as having received care that was compliant with Step 3—giving pregnant women information on breastfeeding benefits and management (WHO & UNICEF, 2018)—if they reported that they attended pregnancy care and received breastfeeding counseling regarding at least two of the following: the importance of breastfeeding, pros and cons of exclusive breastfeeding, risks of supplementation, risks of using bottles to feed babies and mother-baby skin-to-skin contact (Table 2).

We defined compliance with Step 4—immediate postnatal care management (WHO & UNICEF, 2018)—if women reported having skin-to-skin contact with their baby within 5 minutes of birth, and placing the baby on the breast within 1 hour of birth (Table 2).

Compliance with Step 5—supporting women with instructions on how to breastfeed correctly and continuously (WHO & UNICEF, 2018)—was defined as women reporting: (1) that health staff supported them in managing difficulties while breastfeeding, (2) advised them on how to position and attach the baby to the breast for effective breastfeeding, and (3) advised on methods to increase the milk production for their infants (Table 2).

Women were defined as receiving care compliant with Step 6—not recommending breastmilk supplements unless medically indicated (WHO & UNICEF, 2018)—if they reported that their baby was not given any supplements or was given supplements recommended by health staff when medically indicated (Table 2).

We defined women as receiving care compliant with Step 7—mothers and infants should “room in,” that is, remain together 24 hours a day (WHO & UNICEF, 2018)—if they reported that they always stayed with their baby after giving birth and that health staff advised them about rooming in (Table 2).

Compliance with Step 8—support for women in giving their baby their own milk according to the baby’s need (on-demand; WHO & UNICEF, 2018)—was defined as women reporting that they were advised by health staff about feeding on demand (Table 2).

Compliance with Step 9—no artificial teats or pacifiers should be given to breastfeeding infants (WHO & UNICEF, 2018)—was defined as women reporting that their baby was not given a pacifier by health staff and no health staff

Table 2. Compliance Rates for Overall Steps and for Each Practice Within Each Step of the Baby-Friendly Hospital Initiative (BFHI; N = 302).

	Women Receiving Care Practice (Compliance Rate)
BF Support Practices (Steps 3–9)	N (%)
Step 3: BF information provided antenatally	263 (87.1)
Providing BF counseling	270 (89.4)
Giving information on BF	263 (87.1)
Step 4: Immediate postpartum BF support	36 (11.9)
Facilitating Skin-to-skin contact within 5 minutes	48 (15.9)
Placing baby on breasts within one hour	213 (70.5)
Step 5: General BF support	21 (7.0)
Support BF problem	281 (93.0)
Advising on positioning	115 (38.1)
Advising on latching	67 (22.2)
Advising on increasing milk secretion	200 (66.2)
Step 6: No supplements provided by health service	296 (98.0)
No supplementation	296 (98.0)
Step 7: Rooming in during the stay in health service	86 (28.5)
Women practicing rooming-in	302 (100.0)
Advising on rooming-in	86 (28.5)
Step 8: Responsive feeding	76 (25.2)
Advising on responsive feeding	76 (25.2)
Step 9: No bottles, teats and pacifiers	283 (93.7)
Providing no bottles for women to feed infants	302 (100.0)
Providing no pacifiers to infants	283 (93.7)

Note. BF=breastfeeding. Bolded numbers are overall BFHI compliance rates. Steps 3–9 of BFHI are coded according to the compliance criteria described in Table 1.

recommended using bottles for feeding their baby in the hospital (see Table 2).

The overarching principles of our new measurement approach were that: (1) the measures needed to account for all specific practices within each BFHI clinical step; (2) we only aimed to measure the key clinical steps that are the responsibility of health services to implement up to and immediately after birth (Steps 3–9); (3) the measures needed to capture women’s experiences of care; and (4) the measures needed to be suitable for early postpartum administration in the hospital. Therefore, the compliance measures that we developed for a few BFHI steps were different from the criteria given in the Global Standards of BFHI compliance. For example, for Step 9, the compliance criteria for “advising women regarding the risks of using bottles, teats, and pacifiers” given in Global Standards is mostly applicable during the late postpartum period and, therefore, we developed new measures (see Table 1) that are significant for establishing breastfeeding within the early postpartum hours.

Pilot Administration and Outcome

We conducted face validation of questions and responses by administering the tool to five Sri Lankan women who had birthed a live baby between September and December 2021. We then conducted a pilot administration of this tool in a

cohort of postpartum women in Sri Lanka to assess the applicability of this tool and to test the method for presenting compliance estimates. We asked 302 postpartum women who had live, single, or multiple births, did not have a neonatal death, and were sufficiently physically and mentally stable to communicate and participate in this assessment. These women were from four randomly selected government hospitals in Sri Lanka. In Sri Lanka, 99% of women receive pregnancy care at government health facilities and 94% of births occur in government hospitals (Department of Census and Statistics [DCS]-Sri Lanka, 2017, 2019). Women were approached in the postnatal wards of the selected hospitals by the principal investigator of this assessment who is a researcher and independent from Sri Land Health Services. We approached potential participants at least 12 hours after giving birth and before discharge, so participants had an opportunity to most easily and correctly recall their recent experiences of care received in the hospital. Participants received a thorough explanation of the purpose of the assessment and then written consent was obtained before asking them about their experiences with the breastfeeding support care they received up to and immediately after birth.

To implement the compliance measuring criteria, we assessed whether every participant received care across the specific practices of BFHI Steps 3–9. We derived the total number and percentage of participants who received overall care compliant with each key clinical step and received care compliant with specific practices within the clinical steps (Table 2). The percentage that reflects the overall compliance rate with each key clinical step (bolded in Table 2) was derived from the proportion of participants who received care with every specific BFHI practice within a key clinical step.

Implications

From the pilot administration, we observed widely varying compliance across specific practices within each of Steps 3–9 of BFHI. However, we believe that assessing compliance across key clinical practices contributed meaningfully to the accuracy of overall compliance estimates compared to previously used assessment criteria. For example, in Ghana (Agbozo et al., 2020), the compliance rate of Step 4 was measured only with the criteria of “mother-baby skin-to-skin within five minutes of birth.” In Taiwan (Chien et al., 2007), the reported compliance rate with Step 4 was measured using only the criteria “initiating breastfeeding within 30 minutes of birth.” In Brazil (Araújo et al., 2019) and Turkey (Çaylan et al., 2022) compliance with Step 5 had been assessed with a single criterion of “breastfeeding support and management of difficulties.” Overall compliance estimates derived in these studies may be affected by misclassification bias through assessment of a single popular practice within a BFHI step and inconsistency with Global Standards of BFHI compliance.

Further, assessment of specific practices within each BFHI step can assist health services to better identify areas for

improvement that affect overall compliance. For example, within Step 4 of BFHI, the compliance rate with mother-baby skin-to-skin contact was 15.9% while compliance with placing the baby on the mother’s breasts within 1 hour of giving birth was 70.5%, and the overall compliance was 11.9%. According to our method of overall compliance assessment, variations in compliance across the specific practices within each step have significantly contributed to the overall compliance rate of that step. In this case, health facilities can easily identify the practice that needs to be improved to enhance overall compliance with each BFHI step.

In Sri Lanka and globally, it is worth conducting a comprehensive assessment of BFHI compliance using women’s self-reported care experiences as health staff may over-report their practice with self-monitoring to produce more favorable results (Araújo et al., 2019). Evidence from Brazil (Araújo et al., 2019) demonstrated that reported compliance across Steps 3–9 of BFHI was greater than 80% when self-monitored by health staff. When assessed with an external evaluation which included women’s self-report (Araújo et al., 2019), the compliance rate was less than 70% for most of Steps 3–9 of BFHI, with a difference of 20%–30% from estimates based on health staff reports (Araújo et al., 2019). Women’s self-reported maternity care experiences and outcomes are at least as reliable as medical records completed by health staff, and play a vital role in making decisions on care delivery (Chen et al., 2022; McCarthy et al., 2023). Therefore, comparing our estimates of BFHI compliance against compliance estimates derived from health staff’s monitoring in the same health facilities may be valuable for health services to understand the need and value of supplementing health staff’s self-monitoring with women’s self-reported care experiences.

The validity of our assessment method requires further research. Some caution is recommended in reporting the estimates derived for BFHI compliance by applying our method of BFHI compliance assessment in different health facilities before further validation. There is a need for health services to decide who will assess women’s exposure to BFHI care because we have designed the tool to be administered in the wards during the early postpartum period. Social desirability bias may arise if women are asked about the care received by a healthcare worker administering the tool during this vulnerable time. To manage this, assessors should be independent of the health services, replicating the processes applied in our pilot administration. During the pilot administration, we approached potential participants between 12 hours of giving birth and discharge, as we believed that obtaining information from women during the early postpartum hours might minimize recall bias. However, it is also possible that health service providers may not have had an opportunity to comply with some of the practices being assessed during the early postpartum hours, for example, practices within Steps 5, 7, and 8. Future research and applications should consider appropriate timing for collecting adequate information from

women regarding their experiences with all practices within Steps 3–9 of BFHI to maximize validity and minimize recall bias.

Implementing our method of assessing compliance across all specific BFHI practices using women's self-reported care experiences will be a new approach in Sri Lanka and requires significant policy change. The new BFHI policy in Sri Lanka would require three aspects: resources to capture self-reported experiences of BFHI care, commitment to measuring compliance with specific practices within each BFHI step, and targeted training of health staff to improve BFHI compliance in response to comprehensive patient-reported data. However, adopting such a policy in Sri Lanka may be difficult given the economic crisis experienced by Sri Lanka since late 2021 (Dayal, 2023) and the continual dependency on international non-government organizations to fund maternal and child health initiatives at the provincial and district levels (Ministry of Health [MoH] & Family Health Bureau [FHB]–Sri Lanka, 2018). Currently, in Sri Lanka, BFHI compliance monitoring is primarily implemented only at the hospital level, and it relies on motivated and individual administrators with no national coordination (IBFAN-Asia, 2019). Inadequate BFHI training for health staff is reported to be a result of inadequate funding, irregular planning, and scheduling of ongoing training for health professionals on BFHI compliance practice, and no training coordinator positions in hospitals (MoH & FHB–Sri Lanka, 2012). Therefore, without dedicated national policy change, or long-term BFHI funding commitments from international non-government organizations, it will be difficult to raise the quality of BFHI compliance monitoring in Sri Lanka.

Conclusion

Development and pilot administration of the tool that we developed for comprehensively assessing BFHI compliance provides insight into the importance of measuring compliance with individual and multiple practices within the key clinical steps (Steps 3–9) of BFHI and also considering women's self-reported care experiences as a valuable resource in compliance monitoring. Such insights enable health services to review existing BFHI monitoring practices and consider adopting assessment systems for supplementing health staff monitoring of BFHI compliance. Including maternal self-report would allow health services to better identify the specific practices with low levels of compliance and the circumstances that influence the delivery of compliant care. More useful BFHI compliance monitoring can better guide health staff education and training for maximizing compliance with BFHI practices and providing adequate support for every woman breastfeeding in health facilities.

Acknowledgments

We would like to thank all the women who participated in this study. We also acknowledge the Director/Medical Superintendents

of selected hospitals for permitting us to conduct the study; Chief Nursing Officers of selected hospitals, Consultant Obstetricians and Gynecologists, Nurses in-charge, nursing officers, and the doctors and midwives of the postnatal wards of selected hospitals for supporting data collection; and the Faculty of Health, the Queensland University of Technology, Australia for funding travel costs for the principal researcher to collect data.

Author Contributions

Laavanya Lokeesan: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Writing – original draft.

Elizabeth Martin: Conceptualization; Data curation; Methodology; Project administration; Supervision; Validation; Writing – review & editing.

Yvette Miller: Conceptualization; Data curation; Methodology; Project administration; Supervision; Validation; Writing – review & editing.

Availability of Data and Material

Access to this dataset is outlined in the Queensland University of Technology repository Research Data Finder (QUT - Research Data Finder). The dataset generated and/or analyzed during the current study is available upon request.

Disclosures and Conflicts of Interest

The authors disclosed no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The faculty of Health, Queensland University of Technology [QUT], Australia funded Laavanya Lokeesan to conduct data collection in Sri Lanka. Open access publication was facilitated by SAGE-Queensland University of Technology (QUT) publishing agreement via the Council of Australian University Librarians.

Ethics Approval

Ethics approval to conduct this study in selected hospitals was obtained from the University Human Research Ethics Committee of Queensland University of Technology (Approval number – 2000001001) on the 28th of February 2021, Ethics Review Committee of Faculty of Health-Care Sciences, Eastern University, Sri Lanka (Approval number – E/2021/05) on August 3, 2021, and the Ethics Review Committee of Department of Health Services, North-Western province, Sri Lanka (Approval number – ERC/NWP/2021/11) on December, 7 2021.

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