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Running head: BREASTFEEDING CASE STUDY

A Case Study on Using the Via Christi Breastfeeding Assessment Tool in a Clinical Setting

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Abstract

Aims- The goal of this study is to obtain a subjective point of view of the use, benefits, and shortcomings of the Via Christi breastfeeding Assessment Tool in a clinical setting.

Methods- This case study is based on a single yet detailed interview with a lactation consultant who has utilized the Via Christi Breastfeeding Tool in a clinical setting.

Findings- Advantages of the Via Christi Breastfeeding Assessment Tool include that the tool is practical and concrete, encompassing both a subjective dimension and the basic elements of breastfeeding. Shortcomings of the tool include its non-specificity in focus on the feeding technique only and excluding other factors involved with the birth and mother- baby couplet.

Conclusion- The Via Christi Breastfeeding Tool serves as a good initial screening of breastfeeding, which in result leads to the recommendation of further and more extensive study of a specific mother-baby couplet breastfeeding measures if needed.

Introduction

Breastfeeding is currently recognized as the ideal method of feeding for infants unless it is medically contraindicated. Organizations such as the American Dietetic Association (ADA; 2005), the American Academy of Pediatrics (AAP; 2005), and the Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN; 2007) recommend exclusive breastfeeding up to 6 months of age and continued breastfeeding with the addition of complementary foods up to a minimum of 12 months. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) support exclusive breastfeeding for a minimum of 6 months of age and up to 24 months and beyond (WHO, 2001).

Despite current recommendations only 73.8% of mothers in the US initiate breastfeeding in the hospital setting. Following discharge 41.5% of infants are breastfeed to any extent at 6 months and only 20.9% at 12 months (CDC, 2004). The highest rates of breastfeeding are among mothers who are Caucasian and have a college education ("Breastfeeding Trends," 2003). Moreover, mothers over the age of 30 tend to breastfeed more than younger mothers, and married mothers have higher rates of breastfeeding than unmarried mothers. The lowest rates of breastfeeding are seen among women with the following characteristics: African American, maternal age under 20 years, mothers with less than a high school diploma, and those who are not married (CDC, 2004).

To date, multiple tools have been developed by scholars to assess various components of breastfeeding in the hospital setting. However, the usefulness of these tools to predict postpartum breastfeeding outcomes is largely unknown. In the following sections, after a brief summary of the known benefits and contraindications of breastfeeding, the strengths and weaknesses of the

most widely known breastfeeding assessment tools will be reviewed. Finally the Via Christi Breastfeeding Assessment Tool will be described and the need for the current pilot study supported.

Breastfeeding Benefits and Contraindications

Breastfeeding is believed to offer many health benefits to infants. There is strong evidence that there is a significant decrease in the risk of acquiring acute otitis media among infants who breastfeed (Ip et al., 2007). Research has also shown a decrease in the risk of acquiring gastroenteritis and other gastrointestinal infections in breastfeeding infants (Davis, 2001). Maternal milk has been also shown to reduce the risk of necrotizing enterocolitis in preterm infants (Ip et al., 2007). Moreover, breastfeeding has been shown to have an effect on the prevalence of lower respiratory and urinary tract infections (Heinig, 2001). There is some evidence that suggests an association between breastfeeding and a decreased risk of asthma, Sudden Infant Death Syndrome (SIDS), and childhood leukemia (Ip et al., 2007). There is some research that claims an association between breastfeeding and a decreased risk of obesity in later life, but various genetic and environmental factors make the evidence insignificant (Butte, 2001). Similarly, there is an unclear association between breastfeeding and cognitive performance in children because of maternal and environmental confounding factors (Reynolds, 2001).

Breastfeeding has also been found to offer health benefits to breastfeeding women. During the postpartum period breastfeeding encourages uterine contractions, which reduce the amount of postpartum blood loss. Breastfeeding mothers also have a reduced risk of developing pre-menopausal breast and ovarian cancer, as well as a decreased occurrence of bladder infections (Labbok, 2001). Breastfeeding mothers who do not have a history of gestational

diabetes have been shown to have a reduced risk of developing type 2 diabetes when compared with those who do not breastfeed (Ip et al., 2007).

In addition to the health benefits, breastfeeding has been shown to positively affect the economy. Breastfed infants require fewer medical visits and treatments than formula fed infants. This contributes to decreased health care costs and less absenteeism among working mothers (Ball & Bennett, 2001). In addition, breastfeeding eliminates environmental pathogens that are acquired by introducing contaminated feeding devices (Heinig, 2001). This also leads to decreased health care costs by preventing the resulting medical visits.

Breastfeeding is encouraged for most mother-baby dyads. However, there are some situations in which breastfeeding is contraindicated. Women infected with HIV are not encouraged to breastfeed as HIV can be transmitted through breast milk. Mothers infected with the Human T-Cell Lymphotropic Virus are also advised not to breastfeed when safe alternatives are available. Other infectious diseases, such as Herpes Simplex Virus, Varicella-Zoster Virus, Measles, and Tuberculosis, require a temporary cessation of breastfeeding until the disappearance of symptoms or the initiation of maternal therapy. Furthermore, infants diagnosed with the autosomal recessive disorder, galactosemia, should not breastfeed as they are not able to metabolize the sugars found in breast milk (Lawrence & Lawrence, 2001).

Promotion of Breastfeeding

Breastfeeding rates were at an all time low in 1972, when only 22% of mothers initiated breastfeeding. However, the rates of mothers who breastfed started increasing gradually as a result of increased education about the benefits of breastfeeding. There are several factors that

have contributed to an increase in breastfeeding rates. These include increased hospital, professional, and social support for the mothers (Wright, 2001).

As part of promoting breastfeeding, Healthy People 2010 set a goal of increasing the proportion of women who breastfeeding their infants. The goal is to increase the proportion of women who breastfeed to 75% in the early postpartum period, 50% at 6 months, and 25% at 12 months. In order to achieve this goal, several programs have been launched. For instance, the WHO and UNICEF established the Baby Friendly Hospital Initiative (BFHI). This program was established to encourage hospitals to support breastfeeding by providing new mothers with information, training them with skills, and boosting their confidence which could lead to effective and continued breastfeeding (Philipp & Merewood, 2004).

Tools to Measure Breastfeeding

Assessment of Breastfeeding

Several breastfeeding instruments have been designed to assess breastfeeding from the subjective perspective of the mother. The Maternal Breastfeeding Evaluation Scale (MBES) is a tool that measures three factors: maternal enjoyment and breastfeeding role attainment (physical and emotional aspects of breastfeeding), infant satisfaction and growth (infant's weight gain and growth), and maternal lifestyle and body image (negatively worded about body image, felt tied down). The tool consisted of 56 items in a Likert scale, and was revised into a 30 item tool. It was shown to be a reliable and valid measure of maternal evaluation of a breastfeeding experience (Leff, Jefferis, & Gangne, 1994). A second tool, The Lactation Assessment Tool (LAT), measures the mothers' subjective experience with breastfeeding specifically as it relates to pain and nipple soreness. It measures the relation between latching and infant positioning and

the incidence of sore nipples. A study using this tool showed that it could not be generalized since the sample was consistent of women who were already experiencing nipple pain. Also, no one element was shown to be the sole cause of sore nipples (Blair et al, 2003). The narrow scope of these tools limits their clinical relevance.

Several tools have been developed to assess breastfeeding by measuring infant factors. The Systemic Assessment of the Infant at Breast (SAIB) measures the infant's contribution of breastfeeding through factors such as audible swallowing and infant body alignment. This tool is used to teach women how to breastfeed. The components forming this tool include alignment, areolar grasp, areolar compression, and audible swallowing (Shrago, 1990). Another tool, the Breastfeeding Assessment Tool (BAT), allows healthcare professionals to document objective observations of breastfeeding such as infant activity, position, and latch on. This tool was beneficial to increasing support of breastfeeding and the staff's appreciation of the importance of breastfeeding assessment (Bono, 1992). A third tool, The Potential Early Breastfeeding Problem Tool (PEBPT), assesses problems that are faced by breastfeeding mothers. The tool is formed of 23 items, and measures problems including sore nipples, baby falling asleep while feeding, and a fussy baby (Kearney, Cronenwett, & Barrett, 1990). Even though the BAT, SAIB, and PEBPT assess objective factors related to breastfeeding, they cannot accurately measure overall breastfeeding effectiveness because maternal factors are not taken into account.

Assessment of Weaning Risk

Several breastfeeding assessment tools have been specifically designed to measure the risk of early weaning. The first of these tools is the Breastfeeding Attrition Prediction Tool (BAPT). The tool defined attrition as breastfeeding that was stopped early in women who

intended to breastfeed for at least 6 weeks. A study conducted using BAPT showed moderate internal consistency, and concluded that attitudes related to formula and breastfeeding, professional support, and control over breastfeeding barriers were the items most related to early weaning (Janke, 1994).

Another tool designed to measure the risk of early weaning is the H & H lactation scale. This tool measures maternal and infant satisfaction with breastfeeding, and maternal confidence in her ability to breastfeed. The tool consists of a 30 item Likert scale. A study using the H & H lactation scale showed predicative validity for both low birth weight and term samples. It also showed that maternal confidence and commitment play a large role in her continued breastfeeding (Hill & Humenick, 1996). A similar tool, the Breastfeeding Self Efficacy Scale (BSES), measures breastfeeding confidence through measuring maternal self-efficacy (Dennis, 2002). One study using the BSES found that women with perceived insufficient amounts of breast milk tended to wean their infants early. A study showed that women who perceived that they had insufficient milk supply chose to bottle feed. In other words, the tool was shown to be predictive in the perception of the mothers of their milk supply (Dennis & Faux, 1999). The BAPT, BSES and the H & H lactation scale all measure maternal perceptions related to weaning risk. They do not, however, objectively measure breastfeeding effectiveness.

Measuring Breastfeeding Effectiveness

There are several tools that have been developed to measure the overall effectiveness of breastfeeding by taking into account both maternal and infant factors. One such tool is the Breastfeeding Assessment Score (BAS). It includes some very specific maternal factors including maternal age, previous breastfeeding experience, latching difficulty, breastfeeding

interval, and the number of formula bottles given to infant. The tool also takes into account breast surgery, maternal hypertension during pregnancy, and a vacuum birth. The tool is consisted of a detailed questionnaire with 107 items about pregnancy, medications, and experience with breastfeeding. the tool was shown to be highly significant in predicting breastfeeding cessation (Hall et al, 2002).

A much more widely used tool is the LATCH assessment tool. It measures the following five components of breastfeeding: latch, audible swallowing, type and shape of the nipple, comfort level, and hold positioning. (Jensen, Wallace, & Kelsay, 1994). Two studies, the first conducted by Riordan, Bibb, Miller, and Rawlins (2001), and the second by Kumar, Mooney, Weiser, and Havstad (2006), found a positive correlation between higher LATCH scores and longer breastfeeding duration. However, a study conducted by Hemelim and McLennan (2000) indicated that the LATCH tool lacks predictive capacity related to breastfeeding outcomes.

A tool that uses primarily infant breastfeeding behavior to assess breastfeeding effectiveness is the Infant Breastfeeding Assessment Tool (IBFAT). Breastfeeding effectiveness is assessed in relation to readiness to feed, rooting, fixing, suckling, the infant's state, and the mother's satisfaction. A study using this tool showed that mothers with low IBFAT scores breastfed for a shorter period of time than those with higher scores (Matthews, 1988). A study conducted by Schlomer, Kemmerer, and Twiss (1999) found a non significant increase in maternal satisfaction as LATCH and IBFAT scores increased, but a relationship was supported between higher scores on both tools and fewer breastfeeding problems.

A third tool designed to measure breastfeeding effectiveness is the Mother-Baby Assessment (MBA). This tool views breastfeeding as a continuous process in which the actions

of the infant and mother are in response to the behaviors of the other. It measures breastfeeding effectiveness based on signaling, positioning, fixing, milk transfer, and ending. Reliability and validity testing for this tool showed mixed results in different studies (Mulford, 1992). A study by Riordan and Koehn (1997) showed that neither the LATCH, MBA, nor IBFAT tools were significantly reliable to be used in a clinical setting.

The Via Christi Breastfeeding Assessment Tool

Theoretically the breastfeeding literature suggests that assessment of breastfeeding effectiveness is most comprehensive when it includes objective observations of both maternal and infant factors, indicators of milk intake, and subjective maternal evaluation. Unlike any of the other tools reviewed, the Via Christi tool incorporates all of these elements. The Via Christi tool assigns a score of 0-2 on five breastfeeding indicators, for a maximum total score of 10. The Via Christi tool was modified by Riordan (2005) from the LATCH and IBFAT scales. Indicators from these scales were adopted which had previously been positively correlated with milk ingested by the infant and maternal evaluation of the feeding (Adams & Hewell, 1997; Riordan et al., 2001; Riordan & Koehn, 1997; Kemmerer & Twiss, 1999). These correlations were believed to support the reliability and validity of these selected indicators in prior research (Riordan, 2005).

Maternal/infant "positive breastfeeding indicators" adopted into the Via Christi tool are: latch-on, length of time before latch-on and suckle, and suckling. In addition, milk intake is assessed through degree of swallowing and maternal evaluation is measured through indicators of how pleased she is with an individual feeding. Riordan (2005) suggests the following risk "categories" for post-discharge follow-up with breastfeeding mothers based on their Via Christi

scores: 0-2 high risk, 3-6 medium risk, 7-10 low risk. However, the reliability of the Via Christi tool to discriminate between levels of breastfeeding effectiveness and the validity of using in-hospital Via Christi scores as a predictor of post discharge breastfeeding (i.e. predicting those at risk for breastfeeding cessation and need of added support) have never been researched. This case study is aimed to present a subjective view of utilizing the Via Christie Breastfeeding Assessment Tool in a clinical setting. It is intended to obtain an understanding of the utility of the tool as described by a lactation consultant before a future investigation of the tool's psychometric properties.

Purpose

The goal of this case study is to obtain a subjective understanding of the use of the Via Christie Breastfeeding Assessment Tool (see Appendix A) in a clinical study. This study aims to help develop an understanding of the setting and specific situations in which the tool is utilized, as well as to identify several advantages and shortcomings of the tool as observed in clinical practice.

Case study: Definition

According to Yin (2003), a case study is "a comprehensive research strategy" which can encompass both single- and multiple- case designs. He discussed five possible reasons for using a case study approach to conducting research. These applications are as follows: to explain links between study interventions, to describe an intervention, to illustrate subjects in a descriptive manner, to explore intervention results, and finally to evaluate a concept. Yin (2003) also differentiated between reasons to use a single- verses a multiple- case study design. He discussed five rationales for using a single case study design, which is the design used in this research study. The reasons include that the study represents a critical case that is used to test a well

established theory, the study represents a unique or extreme case, the study represents a typical or representative case, the study is a longitudinal one, and the study is being conducted on an issue that lacks previous sufficient research (Yin, 2003). This latter reason is the one chosen for conducting this research study regarding the clinical use of the Via Christi Breastfeeding Assessment Tool. The tool has never been quantitatively or qualitatively tested, and its reliability, validity, and clinical utility have not been assessed. Therefore, this single case study is aimed to gather a subjective point of view of the tool's utility in a clinical setting as seen by a lactation consultant.

Study design and methodology

As discussed previously, a single case study design was chosen for this study. Approval from the Institutional Review Board of the University of Connecticut was obtained. A lactation consultant, who had used the Via Christie Breastfeeding Assessment Tool in a clinical setting, was recruited to participate in the study. A study protocol was developed (see Appendix B) to use as a guide for the case study interview. A transcript was developed following the tape-recorded 45 minute interview with the lactation consultant at her home, and common themes were derived in order to obtain a subjective point of view of the clinical utility of the Via Christie Breastfeeding Assessment Tool.

Participant demographics

The case study subject is a middle age married Caucasian female who has two children. The participant has worked as both a part time and full time registered nurse for twenty five years in areas including medical surgical, intensive care, women and children, neonatal intensive care, psychiatric, and maternity nursing. She was a lactation consultant at a large teaching hospital in the northeast for three years. During that time, the study subject was also a nursing

educator regarding women's health. The study subject utilized the Via Christie Breastfeeding Assessment Tool in her role as a lactation consultant at the hospital from 2003-2006. She was responsible for orienting floor nurses on the Via Christie Breastfeeding Assessment Tool, as well as assessing mothers who were indicated to have low scores on the tool as graded by the nurses.

Study findings

Following is the lactation consultant's role in utilizing the Via Christi Breastfeeding Assessment Tool in her own words:

"I would use it (Via Christi Breastfeeding Assessment Tool) on the floor. So I would go out of the room, and if I was nice, I would mark it for the nurses cause I have to chart my charting on when I saw a client. I wouldn't just chart, I would have to go and make a narrative, and I write in the progress section where the physicians chart because there would be an order to see a lactation consultant. So the nurses really, in my opinion, used this (the Via Christi Breastfeeding Assessment Tool) . I did too every single time, but they used it as sort of their minimum standard, I would say, of care. So if these scores were low, that would prompt them to get me or another lactation consultant. And not that I don't think that everyone deserves to have a lactation consultant, because I think that they do, but there was just given for instance on any particular day on that unit, I might be the only one on a 40 bed unit and there wasn't one (lactation consultant) after me or on any other shifts, so I could be the only one, and a baby could be having a really tough time, and I could literally be in a room for an hour with one couplet. So if I was in a room for one hour and there is 40 patients, I can't; obviously there aren't as many hours in a day you know, so I couldn't really do it. But this would be a great way to teach the nurses. I use it because of course I do all those things, but for them to be able to say well this baby is really having trouble."

Through the interview, the study subject pointed out several advantages and some shortcomings of the Via Christi Breastfeeding Assessment Tool. She stated that advantages of the tool include that it is concrete, it has a subjective dimension, it contains basic breastfeeding elements, and that it is practical to use. Some shortcomings of the tool, according to the study subject, are that it focuses on feeding technique only and that it is nonspecific. The following is a detailed description of the advantages and shortcomings, as viewed by the study subject.

Advantages

Tool is concrete

One of the advantages of the Via Christie Breastfeeding Assessment Tool is that it has clearly defined objective components. For instance, the tool outlines specific time scales for "length of time before latch on and suckle." These time frames are "over 10 minutes," "4-6 minutes," and "0-3 minutes." Similarly, three of the four remaining components, "latch- on, suckling, and audible swallowing" have concrete definitions according to the score to be received. In her own words, the lactation consultant stated: "*I think the advantage to this tool is that, actually I think this tool is pretty detailed and concrete and I think that this is very good for the staff because it doesn't make it subjective. Its very concrete; so you look at this and say "no latch on after repeated attempts," "eagerly grasped," "no latch on achieved at all," so it actually gives the person who's scoring some very concrete information. And because breastfeeding is such a like, people have so many different opinions about it: about what's successful and what's not, this actually says "yeah, this is going good or no its not," and it's based on very objective data."*

Tool has a subjective dimension

The Via Christi Breastfeeding Assessment Tool measures whether a mother is "pleased," "somewhat pleased," or "not pleased" with her baby's breastfeeding performance. This component summarizes the breastfeeding experience as viewed by the mother.

Tool contains basic breastfeeding elements

The Via Christi Breastfeeding Assessment Tool includes the main physical elements of breastfeeding: latch- on, length of time before latch- on and suckle, suckling, and audible swallowing. These components are the basic defining characteristics through while successful breastfeeding is evaluated.

Tool is practical

The Via Christi Breastfeeding Assessment Tool sets objective means for nurses to evaluate breastfeeding. It provides a quick and brief review to assess breastfeeding, which is feasible for nurses to do in a limited time span and even with limited experience with breastfeeding.

<u>Shortcomings</u>

Tool focuses on feeding technique only

Even though the Via Christi Breastfeeding Assessment Tool assesses the basic elements of breastfeeding, it excludes several factors that are vital in contributing the success of breastfeeding. These factors include the baby's oral anatomy and the mother's breast anatomy, the use of analgesics during labor and delivery, the baby's gestational age and weight, and the mother's medical conditions (ex. diabetes). The lactation consultant states: *"So this via Christi tool, as fabulous as it is, is really focused on that one component of the actual technique of feeding, but it doesn't take into account the baby's anatomy, the mother's anatomy, other variables that would hinder breast feeding.. the drugs, the mother's thyroid condition, the*

diabetic, the loss of a lot of blood, all those medications the mother might be on that affect the baby's sluggishness, the weight of the baby, the age of the baby and so if you had a baby with a short frenulum and his mother's nipples are flat…"

Tool is nonspecific

The Via Christi Breastfeeding Assessment Tool does not address specific variables that differ between varying mother-baby couplets, such as gestational age of the baby. It is a general tool that is made to fit the basic elements most common among the breastfeeding population.

Discussion

The Via Christi Breastfeeding Assessment Tool was shown to be concrete and nonbiased. This is important because the nurses using the tool might have varying opinions about the definition of "successful breastfeeding." The definition depends on a nurse's personal experience with breastfeeding, varying social influences, and the nurse's age and cultural background. Therefore, this tool makes it feasible for the nurse scoring a mother and baby couplet to objectively measure the varying components, for example latch-on, and assign a score to the appropriate latch-on behavior.

Another valuable aspect of the tool is that it contains a subjective element. This is important because "mom's evaluation" is an aspect that is verbalized by the mother about her experience with breastfeeding. When a mother feels satisfied with her breastfeeding experience, she is more likely to become encouraged and pleased with breastfeeding. Moreover, the subjective component of the tool serves as a way to foster communication between the nurse and mother, which might help the mother discuss any concerns she might be facing about other hospital experiences.

In addition, the Via Christi Breastfeeding Assessment Tool assesses the basic elements of breastfeeding. It presents an easy and a quick way for nurses to evaluate overall breastfeeding in one session. Nurses lack the time to evaluate breastfeeding in a lot of detail that includes oral anatomy and other circumstances specific for each couplet. Therefore, this tool is a simple and quick screening method to provide an easy assessment that will alarm about any possible problems. If a problem is detected, a more accurate and thorough assessment can occur by a trained lactation consultant, and that will be more specific to the particular couplet.

The Via Christie Breastfeeding Assessment Tool is unique compared to other breastfeeding assessment tools. As previously mentioned, some tools, such as the Maternal Breastfeeding Evaluation Scale (MBES) and the Lactation Assessment Tool (LAT), focus breastfeeding assessment on the mother's detailed subjective experiences. Similarly, tools such as the Breastfeeding Attrition Prediction Tool (BAPT), the H & H lactation scale, and the Breastfeeding Self Efficacy Scale (BSES) solely assess maternal perceptions as they relate to risk of early weaning. Other tools, such as the Systemic Assessment of the Infant at Breast (SAIB), the Breastfeeding Assessment Tool (BAT), and the Potential Early Breastfeeding Problem (PEBPT) limit their assessment to identifying objective factors with disregard of maternal satisfaction. These tools are bound by the constraints of subjective or objective factors specificity.

On the other hand, several breastfeeding assessment tools contain both subjective and objective factors. The Breastfeeding Assessment Score (BAS), the LATCH tool, the Infant Breastfeeding Assessment Tool (IBFAT), and the Mother-Baby Assessment (MBA) take into account both maternal and infant concepts in order to measure overall breastfeeding success.

The Via Christi Breastfeeding Assessment Tool was modified from the LATCH and IBFAT scales. Since both objective and subjective indicators were adopted from the two scales, and an indicator of milk intake was added to the Via Christi scale, the latter represents a more comprehensive tool in measure the effectiveness of breastfeeding.

The Via Christi Breastfeeding Assessment Tool plays a vital role in the initial screening of breastfeeding success. It is an important tool that is used by nurses to assess mother-baby couplets and alert physicians and lactation consultants that there might be a problem in breastfeeding, which will lead to a more detailed assessment. The major shortcomings of the tool stem from the way the tool is used, not its actual construction. Conflicts in the utilization of the Via Christi Breastfeeding Assessment Tool develop as a result of a lack of consistency among nurses in the definition of "successful breastfeeding." The different subjective view points of nurses, along with their individual biases, contribute to some irregularities in interpreting various breastfeeding aspects, and as a result the assessment score overall. In her own words, the lactation consultant described four different categories of nurses, each with a different subjective view of breastfeeding. "*So you have that camp of people who don't really believe in it, and you have the camp of people who is just too lazy to spend the other with the person helping them and then you have the other camp of people who are new and young and have never had a baby and they don't know… and that's ok cause those people you can show. And you have the other camp of people who are really good at it.*" The scores from the assessment would be more consistent if everyone utilizing the tool for assessment of a mother-baby couplet had the same impartial understanding of breastfeeding.

Conclusion

An extensive understanding of the use of the Via Christi Breastfeeding Assessment Tool in a clinical setting was gained in this study. Based on this case study, one may conclude that regardless of the few shortcomings, the Via Christi Breastfeeding Assessment Tool is a comprehensive measure of both objective and subjective breastfeeding factors that can be easily and quickly assessed in the clinical setting.

As summarized in the lactation consultant's own words: *"So do we think this tool is good or not? It's good as a screening tool. Just not really a 100% complete. The other thing is too with that nurse thing is depending on who the manager of the unit is, the director of nursing is going to influence how accountable the nurses are for doing this (assessment) and for making more in depth assessments. And the other thing that plays into it is staffing. If the nurse has 7 patients; 7 mothers and 7 babies, there's not way she can spend an hour in each room just on breastfeeding when she's giving out pain meds and taking them to the bathroom and catheterizing and someone's bleeding. So that also needs to be looked at in terms of assigning the nurses appropriately… is that a first time breastfeeding mother? Like one poor nurse should not get 6 of those or one nurse shouldn't get all the bottle-fed, I mean that's like a nightmare. Of course, that nurse is going to fail and the poor patients that have her are going to be disappointed. Feeding is just one of those things that goes to the bottom of the list and its unfortunate."*

Study limitations

The lactation consultant interviewed for this case study has only used the Via Christi Breastfeeding Assessment Tool in a clinical setting. She does not have prior experience with another Breastfeeding Assessment Tool for comparison purposes. Her view might have been limited because she lacks the practice with other tools and their varying criteria.

The utilization of the Via Christi Breastfeeding Assessment Tool was viewed from a lactation consultant point of view. The tool, however, was meant to be used by nurses. So a perspective problem could be a difference in view of using the tool from the outlook of a nurse vs. that of a lactation consultant, who has extra training and is more knowledgeable about breastfeeding.
In addition, the conclusions deduced from this case study are based on a single person's view points. Therefore, it would not be impartial to universalize the findings to fit the majority opinions.

Recommendations for Future Research

An area of further study could be obtaining the subjective point of view of floor nurses regarding the clinical use of the Via Christi Breastfeeding Assessment Tool. It would be beneficial if those views were to be compared between nurses working at small versus big hospitals, with different nurse- patient ratios. This is important in order to assess whether having the time to assess breastfeeding effectiveness plays a role in determining the subjective views on the utility of the tool. Although a bigger sample nurses is needed, the case study approach should be maintained in order to obtain a comprehensive understanding of the Via Christi Breastfeeding Assessment Tool.

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Appendix A

Via Christi Breastfeeding Assessment Tool

Assessment Factors	0 points	1 point	2 points	Score
Latch- on	No latch- on achieved	Latch- on after repeated attempts	Eagerly grasped breast to latch on	
Length of time before latch- on and suckle	Over 10 minutes	4-6 minutes	0-3 minutes	
Suckling	Did not suckle	Suckled but needed encouragement	Suckled rhythmically and lips flanged	
Mom's evaluation	Not pleased	Somewhat pleased	Pleased	
Total score				

Source- Adapted from Riordan J. Via Christi Breastfeeding assessment tool, 1999. Unpublished.

Appendix B

Via Christie Breastfeeding Assessment Tool Case Study Protocol

1) Please state the duration of time that you used the Via Christie Breastfeeding Assessment Tool in clinical practice.
2) Please describe your role in utilizing the Via Christie Breastfeeding Assessment Tool in clinical practice.
3) What do you see as the advantages of the Via Christie Breastfeeding Assessment Tool?
4) What do you see as the shortcomings of the Via Christie Breastfeeding Assessment Tool?
5) As a lactation consultant, how did the Via Christie Breastfeeding Assessment tool affect your working with the multidisciplinary team (nurses, doctors, others?
6) Please discuss one memorable experience that you had using the Via Christie Breastfeeding Assessment Tool.
7) How did that experience alter the ways you viewed and utilized the tool?