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The use of Computerized Instrument to Follow Practices at the Baby Friendly Hospital Initiative

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Abstract

Exclusive breastfeeding practice since early life is an important manner to reduce neonatal and infant mortality. The Baby Friendly Hospital Initiative represents a set of procedures and routines which take to increase such practice. Its sustainability and quality evaluation have been discussed in several forums and a computerized tool for hospital evaluation and monitoring was created by the WHO/UNICEF. Such instrument was introduced to the teams of Baby Friendly Hospitals of the State of São Paulo, Brazil in two proposed versions, and later on, its use was evaluated. This article describes this process, and analyzes at the first time in the literature, the viability of this tool as one manner to contribute to the sustainability of the Baby Friendly Hospital Initiative. Such tool can be useful, especially in countries with long distance and online coordination and monitoring procedures are appropriated.

Keywords: Breastfeeding; Baby friendly hospital initiative; Evaluation of health service; Hospital assistance

Introduction

It is known that during the delivery and the neonatal period that the human being faces the greatest risks to die: according to the United Nations Children's Fund (UNICEF). Each year about four million newborns die, approximately 10 thousands per day, and about 75 per cent of those deaths take place in the first week of life [1]. The neonatal mortality for every cause could be reduced by 16.3 per cent if every child started breastfeeding at the first day of life and in 22.3 per cent if breastfeeding occurred in the first half hour, as showed in the study with 11,300 children in Ghana. The mechanisms for such reduction would be at least the following: mothers who breastfeed immediately after the delivery have more chance to be successful in the breastfeeding practice. The pre-lacteous food, normally offered to the babies before breastfeeding, can cause lesion in the baby immature intestine; while the colostrums accelerates the maturation of the intestinal epithelium and as well as protects against pathogenic agents; and the skin to skin contact prevents hypothermia [2].

The Baby Friendly Hospital Initiative (BFHI) was launched in 1991 with aim to become the hospitals friendly to the breastfeeding practices, through the implantation of the "Ten Steps to Successful Breastfeeding" (Box 1) and no distribution of sample or donation of infant formula, or even your purchase subsidized [3]. The "Ten Steps" represent a summary of the main hospital routines which take to an adequate beginning of breastfeeding and its exclusive practice for the first six months. While the donation of infant formula represents no incentive to the misuse of artificial milks, which risk is high if it is not prescribed individually with proper criteria, in the moment that lactation is not established yet. As each year more and more births take place in the hospital settings, it is very relevant that the routines of such institutions follow the scientific evidences [4] that promote the "Ten Steps" (Box 1).

The Ten Steps to Successful Breastfeeding	
Every facility providing maternity services and care for newborn infants should:	
1.	Have a written breastfeeding policy that is routinely communicated to all health care staff.
2.	Train all health care staff in skills necessary to implement this policy.
3.	Inform all pregnant women about the benefits and managements of breast-feeding.
4.	Help mothers initiate breastfeeding within a half-hour of birth.
5.	Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6.	Give newborn infants no food or drink other than breast milk, unless medi-cally indicated.
7.	Practice rooming-in – allow mothers and infants to remain together – 24 hours a day.
8.	Encourage breastfeeding on demand.
9.	Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10.	Foster the establishment of breastfeeding support groups and refer

Box 1: The Ten Steps to Successful Breastfeeding.

The impact of the BFHI was broadly evaluated in studies carried out in Belarus which made a randomized trial of institutions that followed or not the principles of the BFHI: the findings of the follow up of 1700 children showed that exclusive breastfeeding was significantly higher in children born in Maternity settings that followed the principles of the BFHI and also those children had less morbidity from infectious diseases [5]. Other studies corroborate the impact over exclusive breastfeeding [6]. In Brazil, the study which compared the findings between one of the first hospital awarded as Baby friendly to other not Baby Friendly Hospital, showed that exclusive breastfeeding practice was significantly higher in Baby Friendly Hospital [7].

Brazil was among the first twelve countries to accredit Baby Friendly Hospitals (BFH), which were initially accredited by international trained evaluators with the support of the UNICEF and the World Health Organization (WHO). In this period – in the beginning of the 1990's – there was a clear enthusiasm in relation to the proposal of the BFHI, which showed to be an important strategy to rollback early weaning and, more specifically, to implement the exclusive breastfeeding. There was less than one decade that "exclusive breastfeed" was scientifically known as the practice that would take a minor risk to acquire and die from infectious diseases, in comparison to complementary feeding even with a minimum introduction of no nutritional fluids [8,9].

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In the first four years, it was exponential the growth in number of hospitals which received the accreditation; after 1996, the observed growth was more slow, with variation from country to country. Worldwide, 156 countries adhered to the Initiative, and according to the balance made in fifteen years of BFHI was found approximately 20,000 hospitals in 2008 [10,11], an average of 1330 new Baby Friendly Hospital accreditation yearly, reaching about seven BFH/year/country.

In Brazil, in 2010, it reached 330 BFH, within a universe just over 4,000 hospitals with beds in Maternities wards. After the more recent process of re-evaluation, where twenty BFH were disaccredited, it was launched the revitalization of the BFHI – with translation and adaptation of a set of reviewed and up-to-date materials of UNICE/WHO. Thus, it has started to use the global criteria reviewed and in the process it was also included training and updating of evaluators, its reaccreditation and awareness of the teams and new hospital's managers [12]. For the BFHI be effective on their proposals it is necessary to maintain the high standard of quality in its accredited health units. Nevertheless, it has been observed that there is a tendency to weaken the standard in many parts of the world due to employment of new administrators who unknown about BFHI proposals, high turnover of employees with admission of professionals without training skills for lactation management, the intensification of the strategy for marketing of companies of infant formulas, bottle feeding and pacifiers [13]. However, there are not studies documenting further difficulty about the process of sustainability of the BFHI. In many events where the issue of BFHI is approached, it has been discussed such difficulties. Consequently, the Department of Nutrition of the WHO contracted the Wellstart International to develop a computerized tool for evaluation, which was launched in 1999. Such instruments is based on the "global criteria" for the evaluation of the Ten Steps with the objective to benefit involvement of the administration and the team of the BFH to identify problems, as well as to plan corrective actions for the maintenance and improvement of its practices. Such tool was one more strategy which could be used in the sustainability of the BFHI and in long-term to guarantee its credibility. The set of material had a manual with instruments to collect data and orientation about the definition of interview samples of mothers and professionals. After the gather, the data should be typed at an applicative in the Excel program which allowed automatic accomplishment of calculations in percentage and graphics for each evaluated practice. The computer program looked simple and enabled accomplishment until four consecutive diagnostics, enabling to compare the condition of the hospital overtime [14].

In the set of the reviewed material, updated and amplified from the BFHI, launched by the UNICEF and the WHO in 2007, included one new proposal as named "Computerized tool for Monitoring and Evaluation of the BFHI", nowadays in HTML. The forms adopted in the process of revitalization are available sole to external evaluators, but it can also be adopted for monitoring if the national authority so determinate [13]. The set of standardized forms of the process of revitalization include interviews with key staff, members of the team, mothers and pregnant women, beyond the analysis of register of data of the hospital and printed materials and observations of the hospital sectors [15].

In countries with very long distances to allow adequate and close supervision of the actions of health, taking Brazil as an example, since the WHO and UNICEF launched for the first time the computerized tool, decided to awareness hospital administrators for its use and the evaluation of its application. This article describes this process and analyzes the viability of this tool as one more manner to contribute for the sustainability of the BFHI.

Operational Procedure

The following is concerned the experience of two researchers, who are also evaluators for the BFHI, about the procedures for attempting to implant the computerized tool and the results of courses about two versions of these tool, beyond the evaluations about its use by the teams of Baby Friendly Hospital in the State of São Paulo (ESP). Forward it is described the phases of the process of publishing and evaluation of two versions of computerized tool proposed by the WHO and the UNICEF.

First Phase: Translation, adaptation and evaluation of use of the first version of computerized tool

In 1999 it was translated from English the texts referred to the WHO/UNICEF proposal entitled "Baby Friendly Hospital Initiative: instruments to follow the process of change and their maintenance". In the last version of translation, it was made a revision of technical terms and the adaptation of materials of the BFHI used in Brazil [14]. In the following months, as part of the extension of the project and formation of administrators of Hospitals – Maternities in the BFHI promoted by the Brazilian Minister of Health, was published this tool in Excel through demonstration of its use; several administrators showed interest, however, only two colleagues coordinator of the BFHI from maternities of municipality of São Paulo passed to use it. In December 2001 it was accomplished in the Institute of Health, a theoretical and practical course with duration of eight hours about the use of computerized tool, to which were invited represents from all fourteen BFH in the State of São Paulo (ESP). After one year of the course, it was accomplished telephone interviews with the participants, applying a semi-structured questionnaire, to evaluate if the tool was being used by the teams in the hospitals, and as well as its difficulties and suggestions.

Second Phase: Translation, adaptation and evaluation of the use of the second version of the computerized tool

In 2005 and 2006 when the WHO and the UNICEF decided to update all the material of the BFHI and to review the global criteria and the computerized tool, the authors of this article were invited to accomplished a test in the field and also to give suggestions of changes. In 2008, by the request of UNICEF Brazil, they were responsible to translate and to review the set of new revised materials, updated and broaden of the BFHI. Followed it was organized a theoretical and practical course with eight hours of duration about the new tool, to which were invited represents of thirty five BFH of the State of São Paulo (ESP). After three to four months of the course, it was accomplished a telephone interviews with those participants to evaluate the use of the tools by the teams of the hospitals.

Results

Evaluation of the course and the use of the first version of the computerized tool, in excel

The table I show that 93 per cent of BFH of the State of São Paulo was presented in the first course. About one year after, was verified that 69 per cent of hospitals which attend the course have used the tool, and 56 per cent of those hospitals has applied it only once. Nearly half of the hospitals identified problems to comply the Steps, which has presented for both the team and the administration, allowing the elaboration of

a plan of action to rectify the weakness. Every team which used the tool found the material very useful, as it detected weaknesses which are not perceived in the daily basis. Moreover, they mentioned about the form that the results were presented – in graphics and reports that could be printed - facilitated the discussions with the team and the administration. The interviewed from 33 per cent of the hospitals reported some difficulties, finding that the questions of the proposal forms in the tool not always were objective and this activity to fulfill large amount of form was excessively time consumed. It was observed that 88 per cent had operational difficulties applying the tool, such as lack of human resource, time, and work load of task and resignation of some members of the team. The ones that failed using the tool reported that the main difficulty was the lack of human resource to apply it.

Course evaluation and use of the second version of the computerized tool, in html

In the Table 1, shows that the course had the participation of 92 per cent of the BFH of the State of Paulo (ESP). In the pos-course evaluation, 87.5 per cent answered to the interview. From that, 46.4 per cent had used the tool. Half of the interviewed reported certain level of difficulty in the application of the forms, the process on exposing and use of the tool. Four participants knew the previous tool's version and they considered be indifferent to use any version, however they opined that the old version enabled them to accomplish an historic series of monitoring and preview of graphics that the actual version not allowed. The 53.6 per cent that still have not used the tool presented as the main reasons the lack of time and human resource, necessity to train more members of the team, politics difficulties and lack of computer.

Discussion

According to the literature search, this study with the computerized instrument of the BFHI, proposed by the WHO and UNICEF in the 90's and further review in 2006, is the first one to be publicized. Expectantly the report of those experiences, using this type of tools, can contribute positively for discussion about the sustainability and maintenance in the quality of accredited hospital as part of the BFHI.

The limitations of this article are inherent of an unpublished study where the several manners to work and to evaluate were searched by the authors without any further aid from references of other authors in other realities.

Another limitation which can be identified, that it is not a "project" of evaluation of an instrument, which is recommended to be done, but with report from an process of implementation of actions and evaluations (almost) concomitant – which can contribute to improvement of the instrument in question and to query your use.

Even though the external revitalization is the most adequate form to measure how far a hospital sustain maintaining the required standards of the BFHI, it involves a process more tough than the monitoring accomplished by the own team of the hospital [13]. The monitoring cannot be mastered with a desired insertion; but can provide compelling results in the way to guide what are the issues that need more attention from the team. Moreover, in the sense to improve, could be assigned internally in the hospital a team for evaluation which is less directly involved in the attention to mothers and babies, attempting to avoid bias in gathering and interpretation of data.

Questions	2001	2009
Number/BFH in the State of São Paulo	14	35
BFH that attended the Course	13/14 (93%)	33(94%)
BFH used the Computerized Tool	09/13 (69%)	13/33 (39%)
BFH reported difficulty using the material	03/09 (30%)	07/13 (54%)

Table 1: Participants of the course related to the computerized tool for monitoring and evaluation of BFHI in 2001 and 2009, hospitals that used the computerized tool and reported difficulties.

An unique study about the re-evaluation of BFH was published in 2007 in Brazil [16], which was been difficult to be performed and to compute all data to the whole country. However, it showed the necessity of a continuous monitoring, even though 82 per cent of hospitals re-evaluated maintained apt for accreditation; in other words, it maintained the standard required by the BFHI. However, the concerns with the maintenance of the quality of hospital's routines continue to be present in other countries, too [17] and other authors recommend a continuous monitoring [18], especially the most difficult practice to maintain – the update of professionals in the conduct and ability to support lactate mother.

In relation to our findings, according to the evaluation accomplished after the course, it was found that the tool can be an important instrument to monitor if the BFH is maintaining the requested standard by the initiative. Their utilization showed simple, although a proportion of participants have faced difficulties with the forms and the fulfilled of their own tool. It was observed that those difficulties to deal with the tool were bigger in the second version in HTML.

The difficulties with the forms and the process of on exposing could be overcome slowly, becoming your use easier in each application. Other difficulties appointed by the participants were in relation to the organizational infrastructure of the services which can be more difficult to overcome. Recently the Brazilian Minister of Health decided to incorporate the tool as an instrument of evaluation and monitoring online of the BFHI in Brazil. As the tool in HTML language showed less friendly, the Brazilian Minister of Health decided for the development of a new version more adequated to the Brazilian reality. It is a WEB tool that uses the PHP language with data base MYSQL, developed in modules which allow the access to data by the BFH, External Evaluators, State Coordination of the BFHI and the Minister of Health. The global access is allowed only by the Minister of Health and the partial access to each one of the other sectors according to your specification [19].

The reach and maintenance of one standard of excellence in quality in the hospital attention through system of accreditation similar to those of BFHI is still an incipient process in our country. It is important to take into account that those challenges are present in the general manner in the process of evaluation of the quality in the hospital attention. In studied accomplished in the universe of 6528 Brazilian health institutions, only thirty six were accredited between 195 evaluated, in process of institutional evaluation accomplished in the period of October/1999 to March/2002. Moreover, between the accredited institutions only twenty seven succeeded to maintain the required level of compliance [20].

Conclusions and Recommendations

The results allowed concluding that the computerized tool for monitoring and evaluation of BFHI is a useful and liable instrument of operationalization. It enables rapid identification of shortcomings in the application and sustainability of the "Ten Steps", allowing that the teams in the maternities have an overview of the circumstance, planning and accomplishing the improvements needs. This instrument also allowed that the authorities responsible for the BFHI in the State and/or in the country (beyond the international authorities if they

want), know quickly about the conditions of the accredited hospitals, requesting report that can be sent online. The WHO and the UNICEF recommend that the evaluation for the hospital to become a BFH, have validity for three years and then be re-evaluated. The Brazilian Minister of Health adhered to that proposal and is requesting that the computerized tool be applied once a year as form of monitoring. From the receipt of these results a random maternity might be visited to be re-evaluated by the external evaluators. It will be important to follow this proposal in the next years to verify its viability and results. As part of the recommendation that a team of researchers from other countries look forward to use and evaluate the computerized tool for monitoring and evaluation of the BFHI enable to have more possibilities to discuss this and other forms to sustain the initiative with quality.

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