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Implementing an Inpatient Social Early Warning System for Child Maltreatment

Armita Atabaki¹, Daniela Heddaeus¹, Franka Metzner¹,
Holger Schulz¹, Sönke Siefert², and Silke Pawils¹

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Abstract

Objectives: The current article describes the process evaluation of a social early warning system (SEWS) for the prevention of child maltreatment in the federal state of Hamburg. This prevention initiative targets expectant mothers and their partners including an initial screening of risk factors for child maltreatment, a subsequent structured clearing interview further exploring risks and identifying protective factors and an optional referral to the regional health and social care system. **Method:** The process evaluation was conducted by examining the flow of participants through the different stages of the SEWS as well as asking social education workers, parents, and regional institutions about their satisfaction with the process of the SEWS. **Results:** The participation rate throughout the SEWS as well as the satisfaction rates were high. **Conclusions:** The SEWS is a secondary prevention initiative with a substantial difference to other early prevention initiatives, as it aims to facilitate intervention rather than providing it.

Keywords

child maltreatment prevention, social early warning system, families at risk

Child maltreatment is a complex concept containing various types of violence against the child. Its dynamics, etiology, and prevention vary depending on the type of abuse, the victims' developmental stage, the setting of maltreatment as well as the relationship between victim and perpetrator. This complicates its examination, particularly, in familial cases of child maltreatment, as they often occur concealed in the privacy of domestic life. Nonetheless, child maltreatment is globally recognized as a serious health, social, and legal issue (World Health Organization & International Society for Prevention of Child Abuse and Neglect, 2006).

A substantial body of literature has identified risk factors associated with familial cases of child maltreatment. Factors related to the caregiver include young parenthood (Brown, Cohen, Johnson, & Salzinger, 1998; Mersky, Berger, Reynolds, & Gromoske, 2009; Wu et al., 2004), personal history of abuse (Appleyard, Berlin, Rosanbalm, & Dodge, 2011; Berlin, Appleyard, & Dodge, 2011), substance abuse (Appleyard et al., 2011; Chaffin, Kelleher, & Hollenberg, 1996), mental health disorders (Sidebotham & Golding, 2001; Slack et al., 2011), having many children (Caudill-Ovwigo, Leavitt, & Born, 2003; Dubowitz et al., 2011), low-education level (Dubowitz et al., 2011; Wu et al., 2004), low-socioeconomic status (Kotch et al., 1997; Sledjeski, Dierker, Bird, & Canino, 2009), and social withdrawal (McCurdy, 2001, 2005; Sanders, Turner, & Markie-Dadds, 2002). Child characteristics have been associated with increased risk of maltreatment, too, such as a difficult temperament (Palusci, Smith, & Paneth, 2005; Turner,

Finkelhor, & Ormrod, 2010) or low birth weight (Sidebotham & Heron, 2003; Slack et al., 2011).

Studies examining early risks during and after the period of pregnancy are growing (Luke & Brown, 2007; Palusci, 2011; Williams, Tonmyr, Jack, Fallon, & MacMillan, 2011; Wu et al., 2004;) to further understand about the causes as well as early prevention of child maltreatment. Pregnancy and the time after is a significant transition phase for the family. Providing a new infant a consistent and nurturing home is not an easy task leaving families with little social support as well as little emotional and financial resources under pressure and more vulnerable to child maltreatment. In a longitudinal prospective study, MacKenzie, Kotch, and Lee (2011) examined the cumulative impact of individual and ecological risk factors right after birth and found them to be significant predictors of child maltreatment at age 1, 4, and 16.

Long-term negative health and development outcomes of child maltreatment have been shown in the literature as well. Compared

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to their nonmaltreated peers, maltreated children have an increased risk of poor physical health (Hussey, Chang, & Kotch, 2006; Lanier, Jonson-Reid, Stahlshmidt, Drake, & Constantino, 2010; Rogosch, Dackis, & Cicchetti, 2011), mental health (Springer, Sheridan, Kuo, & Carnes, 2007; Tanaka, Wekerle, Schmuck, & Paglia-Boak, 2011), and behavioral health (Haugaard, 2004; Topitzes, Mersky, & Reynolds, 2010) outcomes. Furthermore, child abuse and neglect is associated with fewer educational and economic achievements (Casanueva, Dolan, Smith, Ringeisen, & Dowd, 2012; Mersky & Topitzes, 2010) as well as delinquency and crime (Currie & Tekin, 2012; Mersky & Reynolds, 2007).

The early risk for child maltreatment as well as the magnitude of negative health and development outcomes led to the advocating of early childhood interventions from the prenatal period to 3 years of age (Guterman, 2001). Thus, many maltreatment prevention initiatives have targeted expectant mothers and families with young children. Meta-analyses showed the positive impact of these programs on child maltreatment outcomes (Geeraert, Van den Noortgate, Grietens, & Onghena, 2004; MacLeod & Nelson, 2000). Favored models of maltreatment prevention are home visitation programs originating from the famous Nurse–Family Partnership (NFP) program (Olds et al., 1997). Olds and colleagues (1997) showed in a randomized controlled trial decreased likelihood of child maltreatment in families that participated in NFP. While, some studies have found mixed results (Duggan et al., 2007; Sweet & Applebaum, 2004), these home visitation programs seem to be particularly effective with young primiparous mothers (DuMont et al., 2008; LeCroy & Krysik, 2011). More recently, comprehensive community-based child abuse prevention programs have been shown effective in reducing the likelihood of child abuse and neglect (Lawson, Alameda-Lawson, & Byrnes, 2012).

What all of these prevention programs have in common is emphasis on the transaction between multiple risk factors and ecologies of families at risk. This focus is in line with recent findings showing that a cumulative risk index of individual and ecological risk factors is significantly more predictive of child maltreatment than single risk factors (MacKenzie, Kotch, & Lee, 2011) as well as with recommendations to combine behavioral and structural prevention for the health promotion of children and adolescents (Pawils et al., 2012).

The majority of these published preventive efforts with an empirical methodology have been implemented in the United States, as the studies included in the meta-analyses mentioned above as well as in literature reviews (Klevens & Whitaker, 2007; Reynolds, Mathieson, & Topitzes, 2009) confirm. In Germany, maltreatment prevention initiatives are yet to mature. National prevalence rates of child maltreatment are not representative due to an absence of a national strategy for data collection. Available prevalence rates stem from police and social welfare records with incidences of less than 1% per year as well as from retrospective surveys indicating a lifetime prevalence of 10% (Pillhofer, 2011).

National preventive efforts were expanded in 2006 with the implementation of so-called *social early warning systems* [Soziale Frühwarnsysteme].

Social Early Warning Systems in Germany

The main national prevention efforts to ensure child well-being are the “Early Child Health Check-Ups” [Kindervorsorgeuntersuchung/U-Untersuchung] starting from birth up to the age 18. These health checkups were originally developed in the 70s to identify diseases at an early stage, as a means of secondary prevention. Parents’ participation in these health checkups has not become mandatory yet. However, in 9 of the 16 federal states an obligatory invitation and reporting system is being implemented which reminds parents of the health checkups and informs child and youth welfare offices about their failure to attend them. The consequences of nonattendance lie in the judgment of the welfare offices (Hock, Herb, & Kieslich, 2012).

With an alarming increase in child abuse and neglect cases over the last decade in Germany, the national maltreatment prevention initiatives have been extended. Policy makers and academics agreed that the early child health checkups do not suffice to ensure child well-being (The Federal Ministry of Families, Senior Citizens, Women and Youths, 2006). Difficult circumstances of the children’s families had been identified as crucial variables in explaining these tragic cases of abuse and neglect. Thus, policy makers aimed to prevent child maltreatment by identifying families at risk at an early stage and supporting them. In 2006, the governmental program “Early Intervention for Parents and Children and Social Early Warning Systems” [Frühe Hilfen für Eltern und Kinder und Soziale Frühwarnsysteme] was launched. This national action program aimed to protect children against maltreatment in families at risk from the period of pregnancy up to the third year of life, particularly, by strengthening parenting skills (The Federal Ministry of Families, Senior Citizens, Women and Youths, 2006). It should be noted that while the fundamental aim of this program is the prevention of child abuse and neglect, its scope has been expanded to child health and development over recent years. Unfortunately, the terms *early intervention* (EI), *social early warning system* (SEWS), *maltreatment*, and *risk* were not clearly defined. Maltreatment includes both abuse and neglect and risk refers to bio-psycho-social risk factors and strains that young families might experience (Böttcher & Ziegler, 2008).

It is important, however, to understand SEWS and EI as two different parts of the national program. SEWS aim to prevent child maltreatment by ensuring systematic access to young parents and their children, screening of risk factors and thereby, facilitating the provision of relevant intervention rather than the intervention itself which refers to EI. The innovation of SEWS is to bring together existing elements of the health and social welfare systems to act as a reliable reaction chain. Hence, SEWS promote the interdisciplinary collaboration between health care and social welfare sectors (The Federal Ministry of Families, Senior Citizens, Women and Youths, 2006).

Model Projects of SEWS and/or EI in the Federal States of Germany

Following the national action program, 10 model projects of SEWS and/or EI as well as their evaluation were initiated in the 16 federal states of Germany. In line with meta-analyses showing the impact of maltreatment prevention programs addressing young families with children up to the age 3 (e.g., Geeraert et al., 2004), this target group was focused in all model projects. In 2007, the “National Centre on Early Prevention” [Nationales Zentrum Frühe Hilfen] was founded to coordinate the exchange of results between these model projects as well as to the public and to provide partial funding (see, <http://www.fruehehilfen.de/>). It has further defined seven quality dimensions for the implementation of SEWS (Renner & Heimeshoff, 2011) which are the following: (1) ensuring systematic and comprehensive access to the target group, (2) systematic and objective identification of risk, (3) motivating families to active participation in support services, (4) adapting support services to the needs of families, (5) monitoring the support provision process, (6) interagency networking and compulsory cooperation between actors, and (7) embedding early prevention in the regulatory system.

However, the lack of a concise definition of either SEWS or EI, as has been described before, led to their very different interpretation and implementation in the individual states. The model projects were adapted to the local needs and structures with varying settings and research methods. The duration of the projects varied as well with few projects having published preliminary results and the majority not having published any results yet. Beyond these model projects, there is a vast amount of regional maltreatment prevention projects that have not been scientifically published.

Inpatient SEWS Hamburg [Babylotse Hamburg]

With the initiation of these model projects under the coordination of the National Centre on Prevention, an otherwise funded model project was implemented in the state of Hamburg with the same aim of preventing child maltreatment. This model project is a SEWS that facilitates access to families at risk, screens them for risk and facilitates intervention by referring them to relevant support systems, as mentioned in the national action program. The target group are pregnant women (shortly before delivery) and their partners.

The SEWS Hamburg was developed and conducted by the See You—Foundation and assessed by independent evaluators from the University Medical Centre Hamburg-Eppendorf as a process evaluation during the time period August 1, 2008 to August 31, 2010. The grant for the model project was given from the Hamburg Donors’ Parliament. The evaluation was funded by the Authority of Labour, Social Affairs, Family and Integration in Hamburg. The project was implemented in the birth clinic of the Catholic Marien-Hospital. Midwives,

pediatricians, and three social education workers comprised the team in the birth clinic.

All pregnant mothers who were shortly before delivery and registered at the birth clinic were screened for risk. The risk screening was conducted by midwives and obstetricians using a short “screening questionnaire” as part of the medical anamnesis. This was a decision of the birth clinic. Scoring two or more on the questionnaire was screened as positive or at risk. Mothers were informed about the risk and about the opportunity to participate in a “structured clearing interview” with a social education worker. In case they wanted to continue participation, they filled out informed consent. Being pregnant and registered at the birth clinic was the only criteria to be considered eligible for participation. In the clearing interview which was conducted shortly after delivery during the hospitalization of the mother, the social education workers further explore risk factors and existing protective factors. As part of the interview, a need assessment was conducted. The social education workers explored together with every single mother in a shared process whether there is need for support and if so, which kind of support. A positive need assessment might lead to a “referral to the regional social and health care system.” In such a case, the social education workers supported the mothers in identifying regional institutions that were most feasible to access and in developing a time schedule to attend these institutions. The social education workers monitored the referral by regular telephone communication with the mothers and the institutions for the period of 1 year. For each participating family a basic documentation was collected to be regularly updated by the social education workers. Ethical approval for conducting the study and its evaluation was obtained from the medical chamber Hamburg (Pawils et al., 2011).

Screening Questionnaire

The screening questionnaire was developed by physicians, psychologists, and social education workers based on an adaptation of Laucht, Esser, and Schmidt’s (1998) longitudinal examination of organic and psychosocial risk factors, one of the pioneer longitudinal examinations of perinatal and postnatal risk factors for child health in Germany. The screening questionnaire included the following dichotomous risk factors for child maltreatment: low birth weight, multiple birth, maternal age (< 18), more than four children, prenatal care, maternal smoking during pregnancy, maternal substance abuse, maternal mental health disorder, paternal age (<18), paternal substance abuse, paternal mental health disorder, familial mental strain, familial social stress, past/current connection to the support system. Expert discussions between physicians, psychologists, and social education workers led to weighting the risk factors on a scale from 1 to 3. A score of 2 or more was considered as a cutoff score for entering the structured clearing interview.

Midwives and pediatricians with no prior training applied the screening questionnaire to mothers shortly before delivery during their inpatient hospitalization. While it was not tested for reliability or validity, a quality analysis was conducted. In

Table 1. Prevalence of Risk Factors Among Positively Screened Mothers

Risk Factors (Weighting Score) ^a	<i>n</i>	%
Familial social stress	(2) 480	62
Familial mental strain	(2) 269	35
Maternal smoking during pregnancy	(1) 159	20
Past/current connection to the support system	(2) 87	11
Maternal mental health disorder	(3) 68	9
Low birth weight < 3 percentile	(1) 56	7
Prenatal care examination ≤5	(1) 37	5
Late start of prenatal care examination	(1) 36	5
Maternal age (<18)	(2) 34	4
More than four children	(1) 30	4
Paternal substance abuse	(1) 29	3
Multiple birth	(1) 22	3
Paternal mental health disorder	(1) 20	3
Maternal substance abuse	(3) 16	2
Paternal age (<18)	(1) 4	1

Note. ^a*N* = 723.

a national comparison of screening questionnaires for child maltreatment considering structure (rated practicality, standardized implementation and analysis) and content (evidence-based risk factors), the screening questionnaire was ranked positively (Metzner & Pawils, 2011).

Structured Clearing Interview

The structure and the contents of the clearing interview were developed and manualized by social education workers according to the case management approach (Reuffer, 2009). The interview aimed to elaborate on the risk factors of the screening questionnaire and to explore potential sources of support. In other words, the social education workers tried to further understand about the situation of the mother and to find out whether she is already provided sufficient support (need assessment negative) or not (need assessment positive). In the case of a positive need assessment, the mother was referred to a regional health or social care institution.

The social education workers conducted the structured clearing interview with no prior training during the mothers' inpatient hospitalization with an inter-rater reliability of $\alpha = .585$ (Krippendorffs α).

Referral to the Regional Social and Health Care System

The regional health and social care institutions to which the social education workers referred the mothers are summarized as the following: midwives, family midwives, the general social services [Allgemeiner Sozialer Dienst, ASD], the voluntary organization "Wellcome" for family support after birth, mother centers, family network institutions, early help institutions, educational counseling, parent—child centers, family—child centers, the social services, parent school, migration counseling, and otherwise.

Aim of the Study

The aim of the current article is to describe the process evaluation of the first time implementation of an inpatient SEWS for child maltreatment prevention addressing pregnant mothers (shortly before delivery) and their partners in the federal state of Hamburg. The process evaluation was conducted by examining the flow of participants through the different elements of the SEWS including screening, clearing interview, and referral to regional support system. We further surveyed mothers, social education workers, and regional institutions about their satisfaction with the processes in the inpatient SEWS Hamburg. Despite the initiation of important maltreatment prevention programs in Germany in 2007, few evaluation results have been published so far. The authors wish to contribute to the knowledge exchange of national maltreatment prevention initiatives.

Method

Participants

An exhaustive survey of expectant mothers in the birth clinic of the Catholic Marien-Hospital was conducted. During the time period of the model project, 6,421 births occurred. Of the 4,581 mothers who were screened for risk, a total of 851 parents participated in the inpatient SEWS Hamburg. The mean age of mothers was 28 and fathers had an average age of 33. While 46% of the mothers had the German citizenship, more than half of them have a migration background (59%). Similarly, 35% of the fathers are German with 51% having a migration background. The highest level of education was the completion of an apprenticeship among both mothers (25%) and fathers (23%). Table 1 shows the distribution of the risk factors among positively screened mothers (*n* = 723).

Three female social education workers [Babylotse] participated in the model project. They had studied social education and were experienced in the work with families. They were not trained before or during the model project.

Survey of Regional Institutions, Social Education Workers, and Parents

At end of the model project, the three social education workers as well as the regional institutions were asked to rate the information exchange, availability, and collaboration with the institutions and social education workers, respectively, on a scale from 1 to 6 (1 = *very good*, 2 = *good*, 3 = *satisfactory*, 4 = *sufficient*, 5 = *insufficient*, 6 = *very bad*) by a written questionnaire. Of the 101 contacted institutions, 45 institutions responded.

A total of 211 mothers referred to the regional support system were interviewed 1 year after the birth of their child about their contact with the social education workers in the birth clinic, the structured clearing interview, their referral to the regional support system as well as the support they received there on a scale from 1 to 6 (1 = *very good*, 2 = *good*, 3 =

satisfactory, 4 = sufficient, 5 = insufficient, 6 = very bad). The interviews were conducted by two members of the evaluation team by telephone.

Results

Process Description

During the time period of 2 years and 8 months, when this pilot scheme was conducted, 6,421 births occurred in the birth clinic of the Catholic Marien-Hospital in Hamburg. As shown in Figure 1, the screening questionnaire was applied to 4,581 mothers of whom 723 were detected to be positive/at risk and thus, included in the project. Further, 128 mothers took part due to observations by hospital staff who noted abnormalities in contact such as depressed mood of the mother or other complications during the mothers' hospitalization, for example, severe diagnosis of the new born. Fifty-six of these 128 mothers had been screened negatively/not at risk, while for the remaining 72 cases screening data were not available.

Subsequently, the structured clearing interview was conducted with 839 mothers. Despite the intention to interview every positively screened mother, 12 mothers were not interviewed due to problems in recruitment. As part of the structured clearing interview, the social education workers made a need assessment which included all 839 interviewed mothers. They assessed 378 mothers negatively/not in need of further support and 417 mothers positively/in need. For 56 cases, information about the need assessment is not available due to missing data or because the social education workers stated, that a need assessment had not been possible (no details available).

Of the 839 mothers who participated in the structured clearing interview and the need assessment, 506 mothers received support despite only 417 positively assessed cases. Thus, this supported group of 506 mothers included both positively ($n = 385$) and negatively ($n = 77$) assessed mothers as well as mothers about whose need assessment we lack information ($n = 44$). Three hundred and five mothers of these 506 (60%) were actually referred to the regional social and health care system. As shown in Figure 1, mothers were either referred to one, two, or more than two institutions resulting in a total of 383 referrals. However, not every mother in the support group was actually referred. Other forms of support included regular phone or mail contact, home visits, meetings in the hospital, counseling interviews, consulting services, support with completing, and submitting applications or other forms of social care and/or accompaniment to several institutions, of which 201 mothers made use. This makes 40% of the supported group and 24% of the study sample.

A total of 345 mothers did not receive support which represents 40% of the total sample. Either the social education workers had assessed the mothers as not needing support ($n = 301$) or the mothers had rejected the support offers ($n = 32$). In the remaining 12 cases, information about the nonprovision of support is missing. The case documentation for 330 cases of these 345 nonsupported mothers was closed after a period of

monitoring, as no further need was determined. Unfortunately, the process of 15 cases remained unclear, as contact maintenance failed.

Survey of Regional Institutions, Social Education Workers, and Parents

Table 2 shows the ratings of the social education workers ($n = 3$) about the regional health and social care institutions which is referred to as *about institution* and the ratings of the institutions ($n = 45$) of the social education workers labeled as "about worker." Table 3 reveals parents' ratings ($n = 211$) about both the contact with the social education workers as well as with the regional support system. The rating scale applied for both tables ranged from 1 to 6 (1 = very good, 2 = good, 3 = satisfactory, 4 = sufficient, 5 = insufficient, 6 = very bad).

Discussion

A disturbingly growing number of child maltreatment cases in Germany have reached the public in recent years. Early Child Health Checkups starting with the birth of the child have long been the main national prevention strategy to preserve child well-being. However, parents' participation in these early child health checkups has not become compulsory yet (Hock et al., 2012) and advocacy to expand their scope to the identification of child physical and sexual abuse has yet remained unsuccessful (Thaiss et al., 2010). But recent tragic events of child maltreatment forced a change in national maltreatment prevention initiatives. In 2006, the national action program "Early Intervention for Parents and Children and Social Early Warning Systems" was launched aiming to prevent child abuse and neglect by focusing on expectant women and young families with children up to the age of 3. Subsequently, many model projects on EIs and less so on SEWS were initiated in the federal states of Germany. While, SEWS aim for an early risk identification and thereby facilitation of EI, EI efforts focus on the provision of the intervention itself.

The inpatient SEWS in the federal state of Hamburg aimed to prevent child maltreatment among expectant mothers and their partners in the birth clinic of the Catholic Marien-Hospital over a period of 25 months. A team of three social education workers screened expectant mothers for risk factors of child maltreatment, further interviewed them for risk and support factors after delivery and in case of need, referred them to regional health and social care institutions. The process evaluation examined the implementation of the model project by looking at the number of mothers in each phase (screening, clearing interview, and referral) and further asking social education workers, mothers, and the regional institutions about their satisfaction with the model project.

As shown in Figure 1, of the 4,581 mothers screened for risk during the time period of the model project, 723 were screened positively for risk (16%) with the most common risk factors being familial social stress, familial mental strain, and maternal smoking during pregnancy. These risks have been significantly

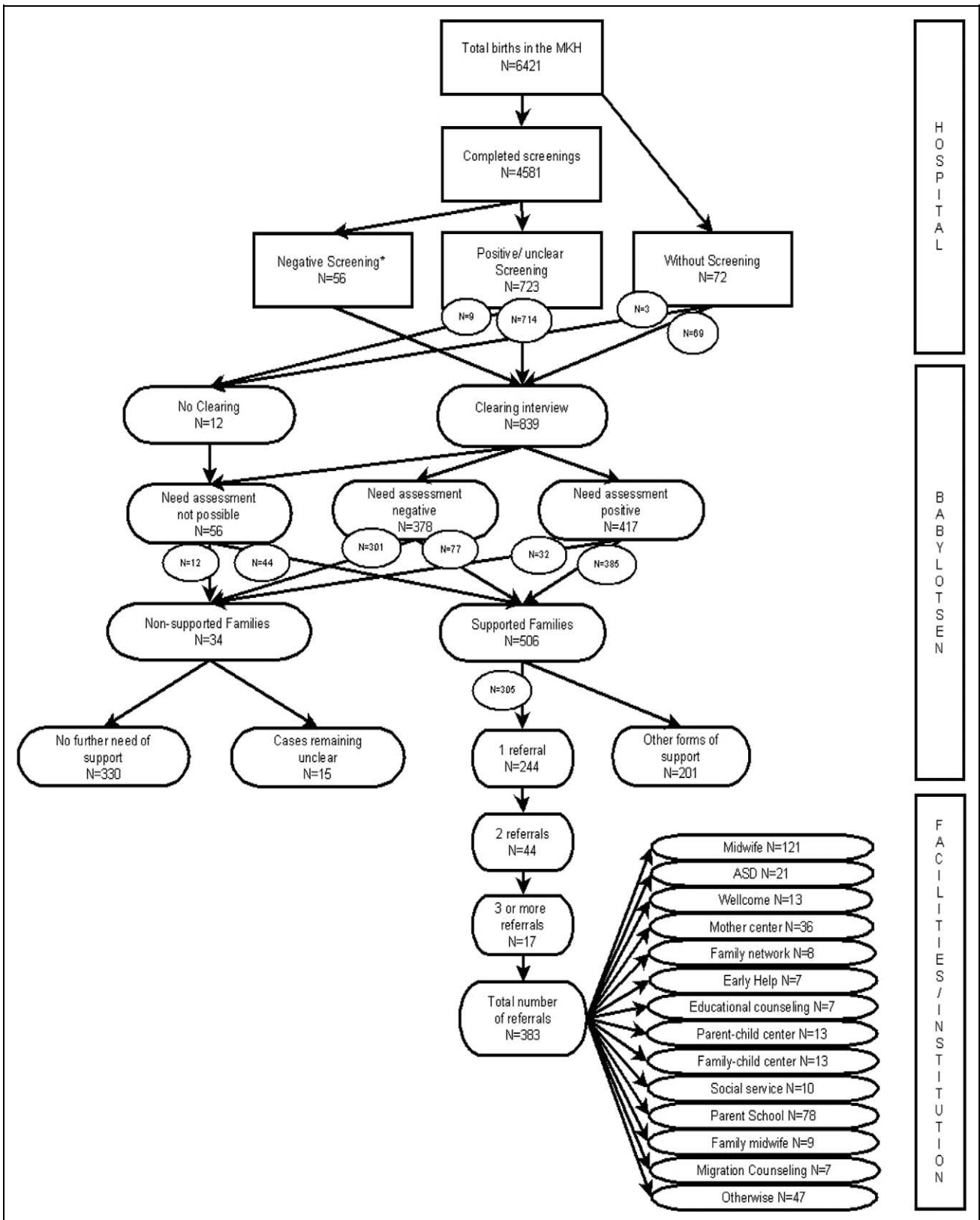


Figure 1. Process description in the inpatient social early warning system (SEWS) Hamburg.

Table 2. Ratings of Social Education Workers and Regional Institutions

	Information Exchange				Availability				Collaboration			
	About Institution ^a		About Worker ^b		About Institution		About Worker		About Institution		About Worker	
	M	(SD)	M	(SD)	M	(SD)	M	(SD)	M	(SD)	M	(SD)
Total	2.3	—	2.45	1.95	2.5	—	2.79	2.11	2.2	—	2.17	1.61

Note. ^a*n* = 3 for "about institution."

^b*n* = 45 for "about worker."

Table 3. Ratings of Parents

Rating ^a	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	M	(SD)
Contact with social worker in clinic	45	43	7	3	—	1	1.7	0.76
Structured clearing interview	48	36	6	2	1	—	1.6	0.77
Referral to regional system	17	9	4	1	1	—	1.8	1.07
Regional support	42	31	14	2	2	—	1.8	1.01

Note. ^a*N* = 211. 1 = very good, 2 = good, 3 = satisfactory, 4 = sufficient, 5 = insufficient, 6 = very bad.

associated with an increased probability for child abuse and neglect (e.g., Chaffin et al., 2004; McCurdy, 2005). In the clearing interview, 839 mothers participated. While the social education workers assessed 417 mothers to be in need of support (positive need assessment), 506 families actually received support (60%, *n* = 839). In other words, some mothers disagreed with the social education workers and wished for support despite having been assessed as not in need. Finally, from 506 families receiving support 305 were referred to the regional support system (60%).

These findings show an overall high participation rate of mothers either due to their high motivation or good contact to the social education workers or both. All positively screened mothers were willing to participate in the structured clearing interview and almost all mothers who were assessed to be in need, agreed with either referral or other forms of support (90%). In line with these descriptive results, mothers rated the contact with the social education workers during hospitalization, the referral to the regional support system as well as the support received there positively 1 year after the birth of their child. Similarly, social education workers and regional institutions have rated their mutual collaboration positively, too.

The inpatient SEWS Hamburg can be classified as a secondary prevention effort (Browne & Herbert, 1997) or selective prevention (Guterman, 2001), as it focused on a specific population at risk in which maltreatment had not occurred yet. However, its structure differs from most other prevention initiatives. While prevention initiatives have often been classified as either interventions focusing on single risk factors or on the interaction between multiple risk factors and the ecology of children (e.g., Lawson et al., 2012), the SEWS does not provide a specific intervention. The whole processes of the SEWS can be rather understood as a complex intervention.

An essential part of the SEWS Hamburg is the structured clearing interview in which not only risk factors from the

screening questionnaire, but also protective factors such as familial support are discussed with the mother. According to the ecological perspective on child maltreatment, the likelihood for child maltreatment is influenced by the interplay of multiple risk and protective factors which might change over time (Belsky, 1993; Cicchetti & Lynch, 1993). While a lot of research has focused on risk factors for child maltreatment, protective factors have been less examined (Li, Godinet, & Arnsberger, 2011). However, studies have revealed that social support decreases the likelihood of child maltreatment by moderating the negative impact of risk factors such as stressful life events and maternal depression (Kotch, Browne, Dufort, Winsor, & Catellier, 1999; Kotch et al., 1997), changing adults' perception of support (Crouch, Milner, & Thomsen, 2001; Vranceanu, Hobfoll, & Johnson, 2007), and also during preschool age (Li et al., 2011).

The current model project fulfilled the quality dimensions of the National Centre on Prevention to some extent (Renner & Heimeshoff, 2011). The setting of the birth clinic provided a precious opportunity to reach families at risk systematically and without stigmatization (Quality dimension 1). While, families willing to participate were screened systematically for risk, the validity of the screening questionnaire was not examined, as discussed before (Quality dimension 2). The birth clinic setting and the after birth situation increased mothers' trust and willingness for participation (Quality dimension 3). The inpatient SEWS Hamburg paid particular attention to adapting support services to the needs of families and thus, comprised elaborated interviews with the mothers. The structured clearing interview aimed to fully understand families' needs and provide relevant support (Quality dimension 4). As mentioned before, the monitoring of mothers' referral to the regional social and health care system was unfortunately incomplete (Quality dimension 5). Interagency networking and cooperation between health and social care

actors was given and rated positively from both sides (Quality dimension 6). Finally, embedding this early prevention effort in Hamburg's regulatory system is aspired. This inpatient SEWS is currently implemented in other inpatient birth clinics of Hamburg as well as in an outpatient setting (Quality dimension 7).

Limitations and Future Directions

The test for validity of the screening questionnaire is still needed in further studies. As shown in Figure 1, 723 mothers had been screened to be at risk, while 839 mothers were included in the clearing interview. In addition to positively screened mothers, 56 negatively screened ones were interviewed as well. These mothers were recognized by hospital staff due to abnormalities during their hospitalization. This might be a hint for the screening questionnaire's lack of specification. Negatively screened mothers were not further examined due to a lack of ethical approval by the medical chamber Hamburg. Metzner and Pawils' (2011) overview on risk inventories for the diagnosis of child welfare in Germany shows both the heterogeneity of instruments applied by social and health care institutions on regional and national levels and the lack of reliable and valid instruments.

We further lack information about *how* mothers made use of the support offers in the regional support system and their drop-out rates. Mothers who had received support ($n = 506$), were monitored by regular telephone communication with the social education workers. However, the documentation of the monitoring is unfortunately incomplete due to the time restrictions social education workers experienced. The documentation was supposed to be handwritten which is both time consuming and prone to errors and might be a reason for the incomplete documentation. We suggest the application of a digital data base such as MySQL for future studies. Awareness about documenting all project stages is essential (O'Rourke, 2010).

Moreover, an impact evaluation of this SEWS is complicated. The whole process of the SEWS represents a complex intervention, however, mothers who are referred to the regional support system further receive specific interventions. Thus, the outcome measure child maltreatment cannot be directly related to the SEWS. Also, finding an appropriate outcome measure, considering the ethical difficulties related to a control group, is a question yet to be discussed. Nonetheless, the inpatient SEWS will be implemented in all birth clinics in Hamburg in 2013. An accompanying evaluation is planned, too. Furthermore, the inpatient SEWS is currently transferred in an outpatient setting (gynecological practice) in Hamburg.

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