

Signs of effectiveness of signs of safety? – A pilot study

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ABSTRACT

The Signs of Safety (SoS) approach has been designed as a tool for professionals to support families and children referred to child protection services, aiming to prevent child maltreatment in early stages. The current study was conducted to give in-depth information on how the SoS-approach is applied to foster parental empowerment and build a cooperative partnership, and to examine the effectiveness of SoS in terms of reducing the risk of child maltreatment and increasing parental empowerment.

Qualitative data were collected through semi-structured interviews with seven SoS-workers. Quantitative questionnaire data from parents and social workers of 20 families receiving SoS and 20 families receiving care as usual were compared. Families were matched using propensity score matching.

The interviews demonstrated that a cooperative partnership between social workers and parents was considered to be a prerequisite to establishing parental empowerment, and that the emphasis on parental empowerment contributed positively to a cooperative partnership between SoS-workers and parents. Quantitative results suggested that three months after a care plan had been made, SoS did not outperform regular care in reducing the risk of child maltreatment and increasing parental empowerment. Overall, parental empowerment was, at trend level, associated with a reduction in the risk of child maltreatment.

1. Introduction

Child maltreatment negatively affects a child's development and is associated with high financial costs (Gelles & Perlman, 2012; Mikton & Butchart, 2009; Wolzak & Ten Berge, 2008). Although the urgency of child protection is recognized by social workers, health professionals, and justice systems, child maltreatment remains difficult to be detected, reported and stopped (Vuijsje, 2016). One of the difficulties is, for example, that social workers are often afraid of falsely accusing parents. In fear of doing this, social workers may report their suspicion too late, which subsequently can damage a child's development. In contrast, in fear of underdiagnosing, social workers may report their suspicions too fast, which can damage the working relationship with the parents (Eijgenraam, 2006). Another difficulty for social workers who have suspicions of maltreatment are their own emotional thresholds (Schoonenberg, 2008). Many social workers experience negative emotions, such as aversion or disbelief, when confronted with child maltreatment, which may affect their decision making (Horizon Academie, 2015). Furthermore, social workers may tend to focus only on the problems within the family, without seeing their strengths (Munro, 1999; Turnell, 2008). This can negatively influence the development of

a working relationship with parents, which is needed for effective care (Baecke et al., 2009).

Signs of Safety (SoS; Turnell & Edwards, 1999) is a clinical framework for child protection services that is developed to assist professionals at all stages of the child protection process, aiming to detect and discuss child maltreatment in early stages and to establish child safety. It is developed through the 1990s in Western Australia. This strengths-based and safety-focused approach to child protection work draws upon techniques from Solution Focused Brief therapy and has two core principles, i.e. establishing a working relationship with the parents, referred to as a cooperative partnership, and parental empowerment. According to Turnell and Edwards (2009), SoS offers social workers tools to elicit the family's perspective on competencies, existing safety and goals, to be more explicit about their role, concerns, and expectations and to take on a strengths-based attitude. The strengths-based attitude is based on the assumptions that every family, even if there is abusive behavior, has its strengths and a social network that can offer support (Turnell & Edwards, 1999). By using a strengths-based, transparent approach and by considering the needs of the family, the family is believed to become actively involved in the child protection process. This is assumed to lead to a cooperative partnership with the parents –

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and eventually with the social network. Within a cooperative partnership, parents feel more empowered to provide potential solutions and to restore the child's safety at home (Turnell & Edwards, 1997, 1999).

Over the years, SoS has been widely recognized as a promising approach to develop a safe environment at home (Kok, 2011). In multiple studies conducted in Europe, the United States and Australia, SoS has been described by professionals as a concrete, transparent approach with little paperwork, that is clearly phased and easy to use (Bunn, 2013; Drenthe, 2009; Gardner, 2008; Skrypek, Otteson, & Owen, 2010; Lammerts, 2012; Wheeler & Hogg, 2011). Furthermore, according to professionals, SoS seems superior to other contemporary approaches in ensuring the child's safety (Gardner, 2008). However, although extant research provides insight in the attitude of professionals towards SoS (Bruinsma & Konijn, 2008), studies examining its effectiveness are scarce. To our knowledge only two controlled studies, published in Danish and Dutch, have been conducted focusing on the effectiveness of SoS in child welfare (Sørensen, 2009; Vink, de Wolff, van Dommelen, Bartelink, & van der Veen, 2017). Sørensen studied the effectiveness of 'FamilieFokus', an approach based on SoS, in multi-problem families with 0–14 year-old children living in Østerbro, a district in Copenhagen. Compared to alternative systemic approaches that were used in the family teams in this municipality, FamilieFokus was equally effective in improving child well-being and was associated with a significant reduction in number of out-of-home placements and financial costs per family (Sørensen, 2009). However, due to non-equivalence of the control group (29 families) and the experimental group (143 families), causal inferences could not be drawn. In a two-year prospective cohort study, Vink et al. (2017) studied the effectiveness of SoS in 65 families in which a supervision order had been imposed or a child protection investigation had started. Most families, all living in the northern part of the Netherlands, were single parent families and children's ages ranged from 0 to 19 (average age at baseline was 8.7). Vink et al. demonstrated that SoS was equally effective as the standard case management approach in the Dutch Child Welfare system in improving child safety and parental empowerment. However, they concluded that because of several limitations of the study, including a high non-response and ceiling effects, conclusions about the effectiveness of SoS could not be drawn. Thus, little is known about the effectiveness of SoS in reducing the risk of child maltreatment.

In addition, it is yet unclear if parental empowerment and the cooperative partnership with parents, the two core principles of SoS (Turnell & Edwards, 1999), indeed play a crucial role in the effectiveness of SoS. With regard to empowerment, qualitative studies focusing on the experiences of SoS-social workers support the assumption that SoS empowers the family and stimulates them to create their own solutions for the problems at home, which is believed to improve child safety (De Shazer, 1988; Hoek, 2010; O'Hanlon & Weinier-Davis, 1989; Turnell & Edwards, 1999). However, this is not confirmed in the aforementioned controlled study by Vink et al. (2017). Nevertheless, the potential of interventions focusing on empowerment has been supported. For instance, in their meta-analysis, MacLeod and Nelson (2000) showed that interventions that emphasize the importance of parental empowerment and the social network are more effective than interventions that do not focus on these aspects. Effectiveness studies by Bugental, Ellerson, Lin, Rainley, and Kokotovic (2002) and Holzer, Bromfield, and Richardson (2006) showed similar results. However, it must be pointed out that these studies did not focus on the SoS-approach. With regard to a cooperative partnership between the social worker and the parents, this is – following the work of McCallum (1992) – seen as a prerequisite for establishing parental empowerment in SoS (Turnell & Edwards, 1997). Although numerous studies emphasize the importance of a constructive relationship between the family and the social worker (MacKinnon, 1998; Teoh, Laffer, Parton, & Turnell, 2003; Thoburn, Lewis, & Shemmings, 1995) and qualitative studies support enhanced partnership by SoS (e.g. Lohrbach & Sawyer, 2004), little is known about the role of this core principle in the

effectiveness of SoS, and neither about the interplay between the development of a cooperative partnership and parental empowerment.

In sum, there is insufficient evidence for the effectiveness of SoS in reducing the risk of child maltreatment and the roles of parental empowerment and cooperative partnership in SoS are yet unclear. To address these gaps and stimulate controlled studies on the effectiveness of SoS, we conducted a pilot study using data from two child welfare agencies in Amsterdam, the Netherlands. First, to give in-depth information on how the SoS-approach is applied by the SoS-workers, we performed a qualitative study at the agency delivering SoS to investigate the practical experiences with this approach. More specifically, we examined how SoS-workers establish a cooperative partnership and parental empowerment, as well as the interplay between the development of a cooperative partnership and parental empowerment according to the SoS workers. Second, we conducted a prospective, quasi-experimental study at both child welfare agencies to examine the effectiveness of SoS (3 months after a care plan had been made) in terms of reducing (the risk of) child maltreatment and establishing parental empowerment. In addition, we examined if parental empowerment reduced (the risk of) child maltreatment and, in that case, if parental empowerment was the core principle by which SoS lead to a reduction in (the risk of) child maltreatment.

2. Qualitative study

2.1. Method

2.1.1. Participants

We recruited and interviewed all seven social workers who formed the SoS-team of a child welfare agency in Amsterdam. On average, the social workers had 21 years of experience in child protection (range 10–40 years) and seven years of experience with the use of SoS (range: 2–10 years). The interviews were voluntary and took, on average, 50 min. All participants signed an informed consent.

2.1.2. Data preparation and analysis

Semi-structured interviews were conducted. Questions in the interview were based on three different aspects of the SoS approach: (1) a cooperative partnership part, focusing on how social workers establish a cooperative partnership with the parents, (2) a parental empowerment part, focusing on how social workers establish parental empowerment, and (3) an interplay part, focusing on the interplay between the development of a cooperative partnership and parental empowerment. All interviews were digitally recorded, professionally transcribed and checked for accuracy.

After transcribing, data analysis proceeded by using a methodology of open, axial and selective coding (Strauss & Corbin, 1998), using the program MAXQDA (Hughes & Silver, 2011). First, open coding was conducted to locate the themes and issues that emerged from the interview transcripts. The themes and issues were marked and assigned to one or multiple codes (open coding). Subsequently, these codes were assessed on differences and similarities and associated codes were merged in multiple overarching codes (axial coding). Based on these overarching codes, associations and connections were determined (selective coding). This was done by constantly comparing the codes, by determining the frequency of the assigned codes, and by considering to what extent potential exceptions gave reason to doubt the correctness of the findings (Boeije, 2005; Strauss & Corbin, 1998). Coding was performed by two coders. Member checking was included at the conclusion of the study in a session with all the member of the SoS-team, to check the viability of the interpretation.

2.2. Results

2.2.1. Cooperative partnership with the parents

When social workers were asked how they established a cooperative

partnership with the parents, three core elements emerged from data analysis: (1) transparency, (2) focusing on the strengths of the family, and (3) their role as a third party. Transparency was mentioned by all social workers. They defined transparency as clear communication at all times concerning what kind of steps are taken and with whom the parents will speak during the process. A kick-off meeting, in which the concerns and requirements according to all parties are discussed, contributes to the transparency. Within the kick-off meeting, direct consequences in case the requirements are not met are appointed. During the SoS-process all important matters are written on A3 papers to further enhance transparency. According to the social workers, transparency ensures that parents more easily experience the cooperative partnership as safe, and it prevents misunderstandings. The second element, focusing on the strengths of the family, was also mentioned by all social workers and defined as focusing on the positive exceptions of the unsafe home environment and not on the problems of the family. To achieve this, the social workers create a positive atmosphere, in which plans can be made to be pursued jointly by all parties involved. With regard to the third element, some social workers described how their role as a third party can be used to form a cooperative partnership with parents who are reluctant towards the involvement of child protection. Parents can feel the need for a constructive collaboration with the SoS worker in order to convince the referrer (child protection worker who referred the parents to the SoS-social worker) that worries about unsafety in the family are not justified.

2.2.2. Parental empowerment

Social workers identified two core elements to foster parental empowerment: (1) the solution-oriented approach, mentioned by all social workers, and (2) involving the social network. During the solution-oriented approach, social workers ask for positive exceptions of the unsafe home environment, to reveal what is working well and in which situations there are no concerns. The social workers amplify the aspects that are working well and make them visible. All social workers mentioned using the safety scale, in which parents are asked to rate the safety at home on a scale of 1–10, as a tool of the solution-oriented approach. Another mentioned tool from the solution-oriented approach was ‘go slow, go fast’. With this tool, the social workers search for positive details. They do this by asking very detailed questions about situations from which social workers and parents can distill aspects that are working well. Subsequently, these positive things are made visible and magnified.

According to some social workers, parental empowerment can also be fostered by involving the network of the family. In this case, the social network is perceived as a source of support and/or as a means to take over some of the tasks and duties of the parents. It is important to notice that the social workers reported the network-involvement as one way to stimulate parental empowerment, but not as a necessary step. In fact, some social workers indicated that sometimes the involved network is the reason for friction within the family, for instance, when the engaged network clearly chooses a side in high conflict divorce cases. In addition, some social workers mentioned that the involved network can maintain family problems, for example, when the network approves the unsafe behavior of the parents.

2.2.3. The interplay between the development of a cooperative partnership and parental empowerment

The results from the interviews suggested that the development of a cooperative partnership and parental empowerment are strongly intertwined. The two elements can positively affect one another. According to the social workers a cooperative partnership is a prerequisite to establishing parental empowerment. Social worker (translated): “A cooperative partnership forms the basis for empowerment. It is truly a precondition.” ... “Look, when I am in a cooperative partnership I can talk about strengths, safety, concerns, dangers, what has to be better and how we are going to do that. If I am not in a

cooperative partnership, then this is not possible”.

However, the social workers also mentioned that a cooperative partnership is no guarantee for parental empowerment. Sometimes parental empowerment does not increase, although a cooperative partnership has been created. Social worker (translated): “For example, the client is an alcoholic and we have a cooperative partnership, but now we come to that part that he has to deal with his alcohol problem. At that part, suddenly, many different unexpected situations occur, which disrupt the social health care. This is not so much resistance to us as social workers, but resistance to deal with that problem. He cannot deal with that problem”.

Furthermore, the social workers mentioned that focusing on the strengths of the family, i.e. to establish parental empowerment, contributes positively to the establishment of a cooperative partnership. Social worker (translated): “By focusing on the strengths of the family, families will think: ‘Oh, I have indeed influence on my family situation and I do feel happier because there is less disagreement and less stress’. In turn, this improves the cooperative partnership because they have faith that SoS can mean something for them” ... “Yes, the search for the own strengths, that is the process by which you shape the cooperative partnership”.

If little progress is seen in the establishment of a cooperative partnership and/or parental empowerment, social workers set various motivating actions. These include getting into a dialogue with the parents, strictly adhering to the solution-focused conversations flow-chart, involving the social network of the family, internal consultation with co-workers and lastly, announcing which improvements are required within a specific time frame. If these motivating actions are not effective, the social workers will engage in the ‘last action’. This is a conference with the referrer and the parents. Following this conference, the referrer decides if the consequence(s) which was/were agreed upon in the kick-off meeting – for instance the request of a supervision order – will be pursued or if the requirements need adjustment. Several social workers mentioned that if there is still no progress at the third appointment they consider organizing a conference with the referrer.

Another reason to organize a conference with the referrer is when child safety cannot be guaranteed, which is the case when requirements such as: ‘Daddy will not hit or threaten mummy or anyone else’ are not met. However, especially when requirements are not clearly formulated at the start of the care process, it can be difficult for social workers to determine whether or not a situation is so unsafe that the ‘last action’ has to be carried out. This complexity offers a possible explanation for a mentioned pitfall, namely, the risk of pursuing the SoS-process for too long, hoping for improvement. Other mentioned explanations for this pitfall are that (1) the SoS approach offers many roads to follow, which the social workers will try before deciding to return their assignment to the referrer; (2) it takes time to arrange an appointment for a conference with the referrer.

3. Quantitative study

3.1. Method

3.1.1. Sample

To determine the effectiveness of SoS, a group of families supported by SoS (at the welfare agency where the qualitative study was performed) was compared to a group of families supported by standard care at another child welfare agency (from now on referred to as care as usual; CAU). The target group of child welfare agencies in the Netherlands consists of families with problems in different domains such as delinquency, school problems, child maltreatment, mental health, alcohol and other drug problems or high-conflict divorce. The care that is being offered to the families is compulsory and for some families, a child protection investigation has been initiated. The SoS-group was drawn from Study 1 (see Fig. 1), a prospective, quasi-experimental study on various types of Family Group Conferencing (FGC)

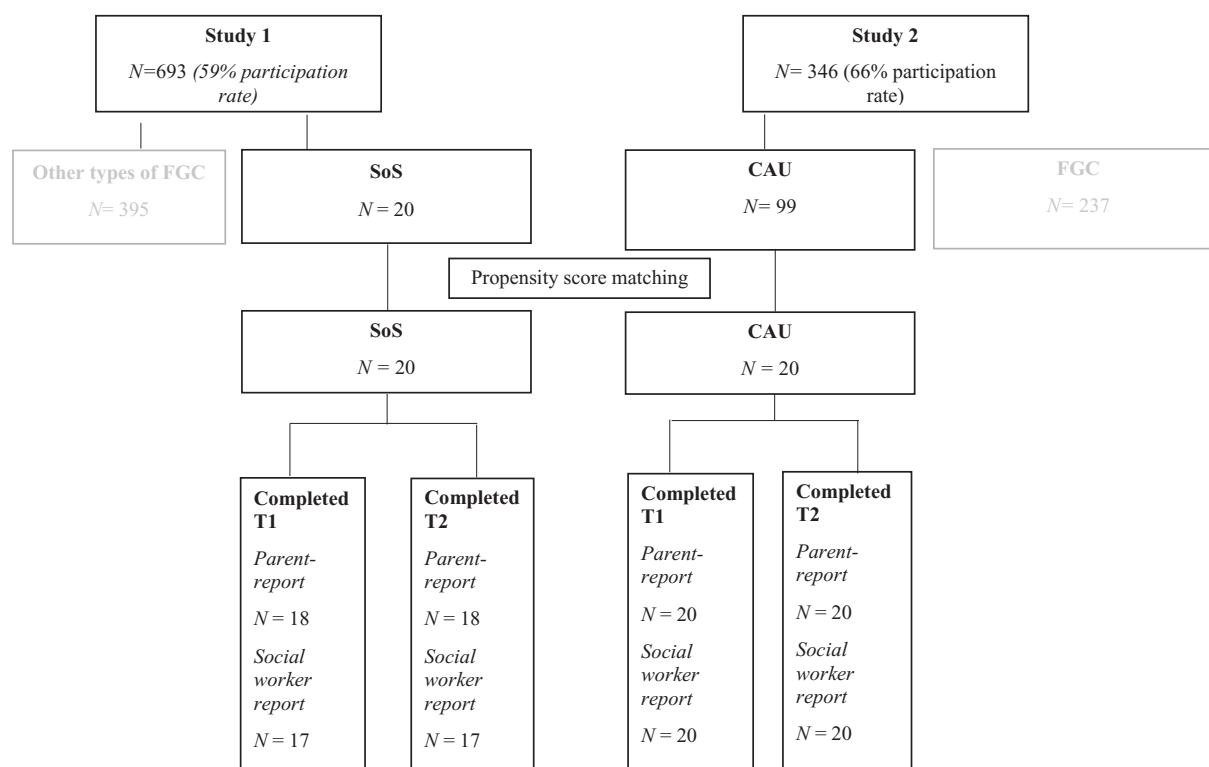


Fig. 1. Sample-flowchart.

in the Netherlands (Authors' own, 2016). The subset of families ($n = 20$) that received SoS was selected for the current study. The CAU-group was drawn from Study 2, a randomized controlled trial on the effectiveness of a specific type of FGC in child welfare (Authors' own, 2014). The subset of families ($n = 99$) that were assigned to the control group and, therefore, received CAU was selected for this study.

Propensity score matching was used to create two groups with similar distributions of observed covariates (Rosenbaum & Rubin, 1983). The propensity score was calculated for every family based on the covariates ethnicity of the parents, the reason for referral to the child welfare agency, the presence of an intellectual disability of the parents and all outcome variables at baseline (T1), using logistic regression analysis. Subsequently, we used nearest neighbor matching within specified propensity score calipers. The caliper was set on 0.25 standard deviations. This resulted in a total sample of 40 families; 20 families in the SoS-group and 20 families in the CAU-group. Table 1 shows the distribution of family characteristics and T1 outcome scores for both groups. The matching procedure was successful, as there were no differences in any of the family characteristics or T1 outcome scores between the SoS- and CAU-group. Because of missing family data at both T1 and T2, two families were excluded from the analyses of parent-data. Because of missing social worker data at T1 and T2, three families were excluded from the analyses of social worker data.

3.1.2. Procedure

In both groups (SoS/CAU), the social workers introduced the study to the participants. If parents agreed with receiving information about the study, the research team approached them by phone (SoS-group) or visited the family at home (CAU-group). During this contact, the research team provided further details and, when parents agreed with participation, they filled out an informed consent form. After this procedure, baseline assessments were conducted by means of telephone or online surveys (SoS/CAU group) or home visits (CAU-group). The social workers were questioned through an online survey.

In both groups, the baseline assessment (T1) was conducted at the

start of child welfare (T1). The follow-up measurement (T2) was conducted three months after a care plan was made (on average seven months after T1). Both studies were approved by the independent Ethical Committee of the Faculty of Social and Behavioral Sciences of the University of Amsterdam (CDE-3394 (Study 1) and CDE-3308 (Study 2)).

3.1.3. Conditions

In the experimental group the SoS-approach was used. The core concepts of the SoS-approach are a partnership between professionals and family members, a strengths-based approach, and safety and risk taxation (Turnell, 2010). In the SoS-approach, the social worker follows the SoS-framework that contains four domains for inquiry: 1. What are we worried about (Past harm, future danger and complicating factors); 2. What is working well (Existing strengths and safety); 3. What needs to happen (Future safety); and 4. Where are we on a scale from 0 to 10, where 10 means there is enough safety at home, and 0 means it is certain that the child is in an unsafe environment (government of Western Australia Department for Child Protection, 2011). The above domains are mapped in collaboration with the family and need to be accepted by everyone in order to apply as the new collective goals.

In the CAU-group, Intensive Family Case Management (IFCM, Busschers & Boendermaker, 2015; Busschers, Boendermaker, & Dinkgreve, 2016) was used. This is the standard approach at the involved child welfare agency, namely a supervision and case management method, based on Functional Family Parole Services (Alexander & Robbins, 2010), for engaging, motivating and working with high-risk youth and multi-problem families. The IFCM-approach aims to establish child safety by focusing on the family as the central objective, engagement and motivation, activation of network resources, and generalization of change (Busschers et al., 2016). In this approach, a care plan addressing the family problems is developed by the social worker in collaboration with the family (and if possible the social network). Effectiveness of IFCM has not been examined yet.

Table 1
Demographic variables SoS- and CAU-group.

	N		Differences between groups			
	Total N	SoS-group	CAU-group	χ^2	df	p
Ethnicity parents	40			1.60	1	0.21
Native-born		12/60.0	8/40.0			
Other ethnicity		8/40.0	12/60.0			
Reason for referral	40			1.71	2	0.43
Child-factors		1/5.0	0/0.0			
Parental-factors		7/35.0	10/50.0			
Combination of child- and parental factors		12/60.0	10/50.0			
Indication of child maltreatment/neglect T1 ^a	38			0.85	1	0.36
Yes		8/44.4	6/30.0			
No		10/55.6	14/70.0			
		N / M (SD)	N / M (SD)	T	df	p
Risk of child maltreatment according to the social worker T1 ^a	37	17/0.52 (0.31)	20/0.38 (0.22)	1.51	35	0.14
Risk of child maltreatment according to the parents T1	38	18/0.16 (0.18)	20/0.17 (0.23)	−0.20	36	0.85
Family empowerment T1	37	17/4.28 (0.60)	20/4.19 (0.51)	0.49	35	0.63
Service system empowerment T1	37	17/3.95 (0.53)	20/4.08 (0.44)	−0.84	35	0.41

Note. In both conditions, no intellectual disability in the family was found.

^a Please refer to 'Instruments' for measurement information.

3.1.4. Instruments

Child maltreatment was measured with three items of the Actuarial Risk Assessment Instrument Youth Protection (ARIJ; [der Put, Assink, & Stams, 2016](#)), completed by the social worker at T1 and T2, assessing physical abuse, emotional abuse and neglect (0 = *no indication of child maltreatment*, 1 = *indication of child maltreatment*).

The risk of child maltreatment according to the social worker was also measured by the ARIJ, obtained at T1 and T2. The risk-assessment part of the ARIJ estimates the risk of future unsafety and consists of 23 items, using a 2-point scale (absent/present). For the present study, we selected the dynamic risk factors and calculated a mean score with higher scores indicating a higher risk of child maltreatment (10 items, T1: $\alpha = 0.84$, T2: $\alpha = 0.74$).

The risk of child maltreatment according to the parents was determined by the subscale 'abuse' of the short version of the Child Abuse Potential Inventory (CAPI; [Grietens, Groenewegen, Hellinckx, Baartman, & Weglewski, 2000](#)), filled in by the parents at T1 and T2. The CAPI is a widely used instrument to identify potential physical child abuse. For the 24-item subscale, a mean score was calculated with higher scores reflecting a higher risk of child maltreatment. The internal consistency was good (T1: $\alpha = 0.86$, T2: $\alpha = 0.86$).

Family empowerment was determined by the subscale 'family' of the Dutch version of the Family Empowerment Scale (FES; [Koren, DeChillo, & Friesen, 1992](#)), filled in by the parents at T1 and T2. The family scale assesses parents' perception of empowerment in parenting situations, using a 5-point scale (1 = not true at all, 5 = very true). For the family scale a mean score was calculated where a higher scores indicates a higher degree of empowerment (fam-empowerment; 12 items, T1: $\alpha = 0.97$, T2: $\alpha = 0.87$);

Service system empowerment was measured by the subscale 'service system' of the FES ([Koren et al., 1992](#)), filled in by the parents at T1 and T2. The service system scale measures the parents' perception of empowerment with respect to the service system. For the service system scale a mean score was calculated where a higher score indicates a higher degree of empowerment (sys-empowerment; 12 items, T1: $\alpha = 0.79$, T2: $\alpha = 0.82$).

3.1.5. Statistical analyses

Data of eight families were missing at T2. Little's MCAR test (1988) was performed and showed that missing data were completely at random ($\chi^2(53) = 48.83$, $p = 0.64$). If the Little's MCAR test is not significant, the data may be assumed to meet the MCAR-assumption ([Little, 1988](#)). Next, missing data were imputed using the multiple imputation module in LISREL 8.8 ([Jöreskog & Sörbom, 2006](#)).

To examine the effectiveness of SoS, we compared the results of the SoS- and CAU group. First, a logistic regression analysis was conducted to examine whether there was a difference between the groups in terms of child maltreatment at T2, controlled for T1 child maltreatment. Next, repeated measures ANOVA's were conducted to examine the effects of time and time*group on the risk of child maltreatment according to social worker and parents and on fam-empowerment and sys-empowerment.

Subsequently, for the combined samples, we examined if an increase in parental empowerment was associated with child maltreatment at T2. Two logistic regressions were conducted to examine if an increase in parental empowerment (based on T2-T1 change scores on fam-empowerment and sys-empowerment) was associated with T2 child maltreatment. In both logistic regressions, we controlled for T1 child maltreatment. In addition, four linear regression analyses were conducted to examine if an increase in parental empowerment was associated with the risk of child maltreatment reported by parents and social worker at T2, controlled for the risk of child maltreatment at T1.

By answering research questions 1 to 3, we ascertained the presence of direct associations between group and risk of child maltreatment, group and parental empowerment and parental empowerment and risk of child maltreatment. According to [Baron and Kenny \(1986\)](#), mediation can only be tested if all these paths are significant. Therefore, in case of affirmative answers on research questions 1 to 3, we examined whether changes in parental empowerment mediated the effectiveness of SoS.

3.2. Results

Table 2 present the means and standard deviations of the variables of the SoS- and CAU-group at T1 and T2.

3.2.1. (Risk of) child maltreatment

At T2, child maltreatment was reported in two families, one in the SoS-group and one in the CAU-group. Due to these small numbers, the logistic regression to examine the effectiveness of SoS in terms of child maltreatment was not performed. With regard to risk of child maltreatment according to the social worker, a main effect of time was found, Wilks's $\Lambda = 0.67$, $F(1, 35) = 16.99$, $p < 0.001$, $\eta_p^2 = 0.33$. In both groups, there was a significant decrease in the risk of child maltreatment over time. There was no effect for time*group, indicating that the approaches were equally effective in reducing the risk of child maltreatment, Wilks's $\Lambda = 0.95$, $F(1, 35) = 1.99$, $p = 0.17$, $\eta_p^2 = 0.05$. With regard to risk of child maltreatment according to the parents,

Table 2

Means and standard deviations of the variables at T1 and T2.

^a $p < .05$, ^{**} $p < .01$	SoS-group		CAU-group		Total	
	T1	T2	T1	T2	T1	T2
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Risk of child maltreatment – social worker ^a	0.52 (0.31)	0.28 (0.29)	0.38 (0.22)	0.28 (0.26)	0.45 (0.27)	0.28 (0.27)
Risk of child maltreatment – parents ^b	0.16 (0.18)	0.13 (0.14)	0.17 (0.23)	0.16 (0.15)	0.17 (0.20)	0.14 (0.15)
Family empowerment ^a	4.28 (0.59)	4.36 (0.39)	4.19 (0.51)	4.38 (0.43)	4.23 (0.55)	4.36 (4.07)
Service system empowerment ^a	3.95 (0.53)	4.05 (0.54)	4.08 (0.44)	4.25 (0.53)	4.02 (0.48)	4.16 (0.54)
	<i>N/%</i>	<i>N/%</i>	<i>N/%</i>	<i>N/%</i>	<i>N/%</i>	<i>N/%</i>
Indications for child maltreatment/neglect						
Yes	8/44.4	1/5.6	6/30.0	1/5.0	14/36.8	2/5.3

^a $n = 17$ for SoS, $n = 20$ for control.^b $n = 18$ for SoS, $n = 20$ for control.

results did not show a significant main effect of time, Wilks's $\Lambda = 0.99$, $F(1, 36) = 0.07$, $p = 0.79$, $\eta_p^2 = 0.00$, nor an effect of time*group, Wilks's $\Lambda = 1.00$, $F(1, 36) = 0.07$, $p = 0.79$, $\eta_p^2 = 0.00$.

3.2.2. Parental empowerment

Results indicated no significant main effect of time for family empowerment, Wilks's $\Lambda = 0.96$, $F(1, 35) = 1.49$, $p = 0.23$, $\eta_p^2 = 0.00$, nor an effect of time*group, Wilks's $\Lambda = 0.99$, $F(1, 35) = 0.45$, $p = 0.51$, $\eta_p^2 = 0.01$. Likewise, no significant effects were found for service system empowerment (time, Wilks's $\Lambda = 0.95$, $F(1, 35) = 1.82$, $p = 0.19$, $\eta_p^2 = 0.05$; time*group, Wilks's $\Lambda = 1.00$, $F(1, 35) = 0.10$, $p = 0.76$, $\eta_p^2 = 0.00$).

3.2.3. Parental empowerment and (the risk of) child maltreatment

Due to the small numbers of families in which child maltreatment was reported at T2, the association between an increase in parental empowerment and child maltreatment was not statistically tested. Linear regression analyses showed a marginal association between an increase in service system empowerment and a decrease in the risk of child maltreatment according to the parents, $\beta = -0.30$, $t = -1.87$, $p = 0.07$. The change in service system empowerment explained 9% ($R^2 = 0.09$) of the variance in the reduction of the risk of child maltreatment according to the parents. Results showed that neither a change in family empowerment nor a change in service system empowerment were significantly associated with a reduction in the risk of child maltreatment according to the social worker (see Table 3). Because no significant associations were found between approach (SoS/CAU), (risk of) child maltreatment and parental empowerment, mediation by parental empowerment was ruled out.

4. Discussion

The aim of the current study was to examine the practical experiences with SoS through qualitative research and to extend existing knowledge on the effectiveness of Signs of Safety by performing a quasi-

Table 3

Regression analyses of the association between a change in parental empowerment and the risk of child maltreatment.

	β	R^2
Risk of child maltreatment (according to the social worker)		
Family empowerment T2-T1	-0.17	0.03
Service system empowerment T2-T1	-0.20	0.04
Risk of child maltreatment (according to the parents)		
Family empowerment T2-T1	-0.14	0.02
Service system empowerment T2-T1	-0.30#	0.09

$p < 0.10$ * $p < 0.05$ *** $p < 0.001$; corrected for risk of child maltreatment at T1.

experimental study. The findings from our qualitative study indicated that, with regard to the development of a cooperative partnership, social workers considered creating transparency, focusing on the strengths of the family and presenting oneself as a 'neutral' third party, working elements. At the same time, the role as a neutral third party was also associated with more uncertainty in the cooperative partnership with parents, because an extra collaboration had to be established between the social worker and the referrer. With regard to the development of parental empowerment, the solution-oriented approach and involving the network were considered to be working elements to establish parental empowerment.

Social workers thought there was a strong interconnection between the development of a cooperative partnership and parental empowerment. A positive cooperative partnership was considered to be a prerequisite to establish parental empowerment. This finding is in line with the vision of the developers of SoS (1999) as well as with the meta-analysis of MacLeod and Nelson (2000) demonstrating that the involvement of clients in the program plan is a working principle to 'empower' the family. In turn, the focus on empowerment during the SoS-process seems to contribute positively to the establishment of a cooperative partnership. Although these findings provide support for the assumed interplay in the development of partnership and empowerment, more research is needed to further understand this interconnection.

Our quantitative findings suggested that, in the short term, SoS did not outperform regular care in reducing the risk of child maltreatment. A significant decrease in the risk of child maltreatment according to the social worker was detected over time in both groups, showing that the approaches were equally effective in this respect. This finding is in line with previous findings by Vink et al. (2017), who found that SoS was equally effective as CAU in improving child safety. Interestingly, Sørensen (2009) showed that SoS was associated with a greater reduction in out of home placements compared to CAU. Based on the expectation that the chance of out of home placements is lower when the risk of child maltreatment is reduced (Bartelink, Ten Berge, & Van Vianen, 2017), the results of Sørensen (2009) seem to be inconsistent with our findings. However, because Sørensen (2009) did not examine the risk of child maltreatment, no clear conclusions can be drawn about its role in the reduction in out of home placements found in that study.

The findings of the current study also suggested that SoS did not outperform care as usual in establishing parental empowerment. This is in line with Vink et al. (2017), who showed that SoS was equally effective as care as usual in improving parental empowerment. Thus, although SoS was expected to be superior in establishing parental empowerment (Gardner, 2008; Idzelis, Nelson-Dusek, & Skrypek, 2013; Kok, 2011; Skrypek et al., 2010; Turnell & Edwards, 1999; de Wolff & Vink, 2012), this is not supported by controlled studies focusing on short term effects.

Several factors may explain the absence of differences between the two approaches in terms of reducing the risk of child maltreatment and establishing parental empowerment. First, this may be explained by the similarities between the SoS-approach and IFCM. Both approaches are based on theory-driven, strengths-based case management. In addition, both approaches focus on engagement of the social network. Although SoS is primarily solution-oriented and IFCM focuses more on strengthening parental competencies and resiliency of the family system, it is unclear to what extent these differences in theoretical focus translate into the practical implementation. In any case, in this study it does not lead to a difference in effectiveness in terms of risk of child maltreatment and parental empowerment. Second, variation in treatment integrity of SoS may explain the absence of differences between the two groups. Treatment integrity (also known as treatment fidelity) refers to the degree to which an intervention is carried out as intended. A high treatment integrity is denoted as one of the working principles contributing to the effectiveness of an intervention (Perepletchikova, Hilt, Chereji, & Kazdin, 2009). Since SoS is not a strictly-defined approach, variation in the way it is applied is more likely, as are similarities with CAU. At the same time, our findings suggest that differences between the approaches, such as the position of the SoS-workers versus the CAU-workers, do not result in noticeable differences in effectiveness between the groups. More specifically, SoS-workers reported how they can use their role as a third party in creating a cooperative partnership with parents, who want to convince the referrer that worries about unsafety are not justified. Because of their position, CAU-workers cannot use this approach. Finally, the relatively short duration of the study could be a possible explanation for the absence of differences between the two groups. Previous research has suggested that a period of three months after the establishment of the safety plan/care plan, like in the current study, may prove too short to bring about changes in parental empowerment (Wijnen-Lunenburg, van Beek, Bijl, Gramberg, & Slot, 2008).

We also examined the overall association between changes in parental empowerment and a reduction in (the risk of) child maltreatment. Although we expected a positive association (Bugental et al., 2002; Holzer et al., 2006; MacLeod & Nelson, 2000), this was minimally supported by our data. Only empowerment at the level of the service system was, at trend level, associated with a reduced risk of child maltreatment (parent-report only). The limited increase in parental empowerment, which might be due to high initial scores (Hoagwood, 2005; Kutash, Duchnowski, & Lynn, 2006) and/or the relatively short duration of the study (Wijnen-Lunenburg et al., 2008), may explain the absence of convincing support for this association.

5. Strengths and limitations

Despite the popularity of SoS, this is one of the first controlled studies examining its effectiveness. Strengths of this study are the prospective design, the successfully matched groups and the use of different informants. In addition, our qualitative data provide more in-depth information about the value of SoS for social workers. Some limitations to this study should also be mentioned. First, because of the small sample size (quantitative study $N = 40$), the results of this study should be interpreted with caution. A small sample size limits the robustness of the results, and makes it difficult to identify small effects (Bryman, 2012) and generalize research findings. As such, this study should be considered a pilot study and further research with larger samples is needed to assess the effectiveness of SoS. Second, it was not possible to randomly assign the families, which is the preferred method for effectiveness studies (Bryman, 2012). Finally, data of eight families were missing at T2. Because missing data were completely at random, these data were imputed.

6. Directions for future research and practice

The results of this study have some practical implications. First, as both approaches (SoS and IFCM) were associated with a reduction in the risk of child maltreatment over time, strengths-based approaches in youth protection seem promising. This is supported by our finding that establishing parental empowerment is (marginally) associated with a reduction in the risk of child maltreatment. Future research in which the results of strengths-based approaches are compared to the results of traditional, risk-oriented approaches is needed to ascertain the effectiveness of strengths-based elements. Second, this study demonstrates that social workers may experience difficulties in determining when to stop the intervention. This topic seems to require continuous attention in social worker supervision and team meetings. Finally, a cooperative partnership between the referrer and the social worker – in which the referrer is rapidly available and fulfills the established consequences – increases predictability for parents. By creating predictability, the cooperative partnership between the parents and the social workers will stay transparent and safe, and misunderstanding can be prevented.

Finally, it is of great importance to gain more insight in the effectiveness of widely implemented interventions such as SoS. Although the current study contributes to the existent knowledge on the effectiveness of SoS, randomized controlled trials with sufficiently large samples are needed to determine the effectiveness of SoS. Furthermore, a longer follow-up period and the assessment of intermediate measures, including the cooperative partnership between the social worker and the parents, makes it possible to identify mechanisms of change. Finally, it is recommended for future studies to take treatment integrity into account, to assess its influence as well as the working principles of SoS.

Declaration of interest

The authors declare they have no conflict of interest.

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