



Child sexual abuse prevention goes online: Introducing “Cool and Safe” and its effects



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ABSTRACT

Due to the high prevalence and serious consequences of child sexual abuse, various preventive efforts were developed in the last years. The present contribution introduces a newly developed web-based training aiming at the prevention of child sexual abuse and describes the results of the first evaluation of “Cool and Safe”. In the study children were asked about their knowledge, behavioral intentions, emotional awareness, and anxiety before and after participating in “Cool and Safe”. Results showed that the training improves knowledge and trains secure behavioral strategies. Moreover, a decrease in the hiding of emotions for children who participated in the training in comparison to a control group was found. No increase in anxiety could be detected. With respect to the acceptance of the prevention program positive results were obtained. The benefits of web-based prevention and especially the advantages of “Cool and Safe” will be discussed.

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1. Introduction

Caregivers, educators and prevention researchers do their best to ensure a healthy and positive development of all children. One risk for a healthy child development with serious consequences is the experience of child sexual abuse. With the experience of child sexual abuse, mental disorders such as anxiety, depression, posttraumatic stress disorder, or suicide attempts are associated (Chen et al., 2010). Pereda, Guilera, Forns, and Gómez-Benito (2009) conducted a meta-analysis to highlight that the prevalence of child sexual abuse is alarmingly high all over the world. For example, 25.3 percent of women and 7.5 percent of men reported sexual abuse in their childhood in the U.S.-American studies reviewed by Pereda et al. (2009). Due to the far reaching negative consequences and the high prevalence, programs aiming at the prevention of child sexual abuse have been developed. Efforts to prevent child sexual abuse can address different target groups, such as potential offenders, children, caregivers or the community (Finkelhor, 2009). Especially child-centered prevention can take various forms (videos, puppet shows, group discussions, lecture, drama; Davis & Gidycz, 2000). Fortunately, a lot of research has been conducted to assess the effectiveness of child-centered prevention programs. Mean effects of large size regarding children's knowledge were reported in meta-analyses, whereas negative effects such as increased anxiety are very rare (Davis & Gidycz, 2000; Rispens, Aleman, & Goudena, 1997; Topping & Barron, 2009). Topics usually addressed by abuse prevention programs are good and bad feelings and secrets as well as strategies to reduce the likelihood of being abused or to report abuse (Topping & Barron, 2009). As manifold as the target groups of child sexual abuse prevention are, as multifaceted are the methods and teaching strategies. However, many programs or offers are realized in a face-to-face context (Zwi et al., 2009). Wurtele (2009) argued that modern media allows for new forms of prevention programs and that modern media should be used to deliver prevention programs to the target groups. A comparable statement was recently presented by Collin-Venzina, Daigneault, and Hébert (2013). The authors suggested using web sites or online interactive games for sexual abuse prevention. In e.g., health prevention, programs that use computers or the Internet have already been developed (Palmer, Graham, & Elliott, 2005). Even in the prevention of child sexual abuse first approaches have been developed (BZgA, 2014; von Weiler, 2013). The present contribution supports the idea to use the Internet for the delivery of prevention programs and outlines the advantages of web-based prevention. In

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addition, the newly developed prevention program “Cool and Safe” is introduced and its unique features are highlighted, before the results that could be obtained in an evaluation of this prevention program are presented.

1.1. New media as a promising step for prevention

Kenny (2007) was among the first researchers who developed a web-based training for counseling master students and education undergraduates that included information about signs and symptoms of sexual abuse, statistics, consequences of abuse, and reporting procedures. An evaluation showed that the program was effective in improving the knowledge that the users had about child sexual abuse. Since then, several other programs that teach professionals about child sexual abuse have been developed (e.g., *Darkness to Light*, 2014; Hoffmann et al., 2013; Paranel, Thomas, & Derrick, 2012). These examples show that information about child sexual abuse can successfully be taught via web-based training. Due to the promising results it is desirable to expand the development of web-based offers to teach knowledge and to improve preventive skills. Offers for different target groups (e.g., children, professionals, potential offenders) should be developed, implemented and evaluated. The claim that web-based offers for children should be created is supported by findings from other prevention domains, where it has already been shown that web-based offers can successfully be delivered to children. For example, Rubin-Vaughan, Pepler, Brown, and Craig (2011) were able to show that an online game can raise awareness about bullying and promote knowledge about friendliness and fairness. Palmer et al. (2005) reported a significant knowledge gain in fifth graders after taking part in an online prevention program called Healthy Hearts 4 Kids. Even abduction prevention, which might be comparable to abuse prevention, can be successfully conducted by computer-based training (Seckinger-Bancroft, 2010).

2. “Cool and SAFE” – A newly developed web-based training

“Cool and Safe” is a web-based prevention program targeting children in elementary school age. The major goal of “Cool and Safe” is to prevent child sexual abuse by teaching knowledge about safe behaviors, appropriate and inappropriate touches as well as good and bad secrets. As offenders can be strangers as well as familiar to the child, and can target them in person or via the Internet, the issue is addressed with respect to three different settings of children’s everyday life: 1) interactions with strangers, 2) interactions on the Internet and 3) interactions with acquaintances or family members. The program is available on the Internet and it can be accessed free of costs at www.coolandsafe.eu (available languages are German and French). “Cool and Safe” is divided into five thematic units that have to be completed in a predesigned order. Unit one contains the topics bad feelings and good feelings as well as good and bad secrets. Furthermore, it is explained that every child has the right to decide, who is allowed to touch him or her. In unit two the topic of stranger danger is discussed. Children learn that they should keep distance to cars and that it is their right to refuse to talk to strangers when they are alone. Safety strategies for ambivalent or risky situations are discussed. Unit three focuses on topics that are typical for the use of the Internet such as friend requests in social networks, responses to harassment in chat programs, and protecting private information. The topic of sexual abuse by acquaintances and family members is addressed in unit 4. Children are taught that nobody has the right to hurt them or to touch them in private parts of their body. In unit five all of the training contents are repeated and summarized. The completion of the whole program takes about two hours. The program completion can be paused at any time and can be continued at a later time. With the help of a nickname and password, children can access the training at any time. As the training is designed for elementary school children the training is completely read aloud by a tutor figure that guides the children through the training. Children are involved in the program by various film clips, stories, tasks and games and can choose between different behavior alternatives.

3. Quality aspects of prevention programs

When developing a prevention program, several quality criteria have to be considered. Nation et al. (2003) list nine core principals of effective prevention programs, varying from comprehensiveness to outcome evaluation. Additionally, Wolf (1978) emphasizes the importance of acceptance by the participants for any kind of treatment. Other principals that are especially important for child sexual abuse prevention were pointed out by other authors. These include support systems in case of disclosure (Barron & Topping, 2010), active participation of students (Davis & Gidycz, 2000), and, as almost every child in Europe (Livingstone, Haddon, Görzig, & Olafsson, 2011) and the USA (Rideout, Foehr, & Roberts, 2010) has access to the Internet, the coverage of the online risks as an important topic (Wurtele, 2009). All these requirements have to be met by face-to-face as well as web-based prevention programs. How “Cool and Safe” meets these requirements can be found in Table 1. Especially important for this study is the outcome evaluation, that should not only include effects on knowledge, but also should address how the program affects children emotionally. This is important because 1) dealing with positive and negative emotions is often part of prevention programs (Topping & Barron, 2009) and 2) programs should not increase anxiety in children.

4. Goals of the present study

This study was conducted to evaluate the prevention program “Cool and Safe”. Evaluating a newly developed program means to assess its effectiveness and acceptance. Usually measuring the changes in participants’ knowledge and behavioral strategies assesses the effectiveness of programs preventing sexual abuse. Therefore, it was important to analyze if there was an increase of knowledge and secure behavioral intentions. A further goal of the present contribution is to analyze if there are any negative side effects related to the completion of “Cool and Safe” (Topping & Barron, 2009). Therefore it was analyzed if the individual level of anxiety differed before and after the training.

As many other programs (Topping & Barron, 2009), “Cool and Safe” focuses on emotions and emphasizes that children should pay attention to their feelings and talk about bad feelings with trusted adults. Therefore, it was expected that children should show an increase of emotional awareness after completing “Cool and Safe”. In addition, to the indicators of the program’s effectiveness we were interested in the acceptance of the program (Wolf, 1978). Therefore, the children were asked to report their levels of acceptance of “Cool and Safe”.

Table 1
Requirements of prevention programs and their realization in “Cool and Safe”.

Requirement	“Cool and safe”
Comprehensive (multiple interventions and multiple settings are important to ensure a long term impact)	Approaches a new setting, can easily be combined with other programs and without additional costs be repeated after time
Well-trained staff	Not applicable, as there is no staff required
Varied teaching methods	The training itself does not vary in its teaching method as it is completely web-based, but there is additional material available to implement the topics in school.
Sufficient dosage (appropriate session lengths, number of sessions, duration of total program)	Training can be stopped and continued individually to ensure the optimal session lengths and number of sessions, evaluation results indicate a sufficient total duration.
Theory driven (based on theory and past experience)	Contents are based on scientific research on prevention as well as practical experiences with face-to-face prevention.
Positive relationships (providing opportunities to develop strong, positive relationships)	Children are encouraged to talk about feelings and experiences to adults that they trust
Appropriately timed (timed in a child's life to have maximal impact)	Studies show that prevention programs are effective at elementary school age (Davis & Gidycz, 2000)
Socioculturally relevant	“Cool and Safe” aims to give every child the opportunity to access prevention. It is therefore open to all children.
Outcome evaluation	The first evaluation shows encouraging results.
Acceptance of participants	The first evaluation shows encouraging results.
Support systems (in case of distress or intention to disclose abuse experiences)	A nationwide helpline for children is reachable throughout the complete program
Active participation of children	By various games, tasks, and informative feedback, children interact with the program and are actively involved
Internet as topic	One unit of the program deals with safe Internet behavior as well as online risks.

5. Method

To evaluate the effectiveness of “Cool and Safe” a $2 \text{ (Group)} \times 2 \text{ (Time of measurement)}$ mixed-factorial design with a study group and a waiting list control group as well as two times of measurement was used.

5.1. Participants

In sum, 286 children with a mean age of 9.00 years ($SD = 0.76$ years), ranging from 8 to 11 years, participated in the study. The sample consisted of 141 boys and 145 girls. The children were attending one out of five German elementary schools that agreed to take part in this study. All schools were public schools in the State of Hesse and there were no differences with respect to socio-economic status or type of school between the schools. Classes were randomly assigned to either the treatment group ($N = 137$) or the control group ($N = 149$) with the constraint that about half of the classes of each school were in the treatment whereas the other half was in the control group. There were no significant differences between both groups with regard to age, gender, or migration background. Mean age was 9.08 years ($SD = 0.82$) in the treatment and 8.93 years ($SD = 0.69$) in the control group. The treatment group consisted of 52.6% boys, the control group of 46.3%. There were 8.1% (treatment) vs. 7.4% (control) of children who had a migration background.

5.2. Measures

5.2.1. Knowledge

To assess children's knowledge about abuse a self-report questionnaire containing nine items was used. The development of items for the present study was based on the Children's Knowledge of Abuse Questionnaire (Tutty, 2000). The nine items were chosen to reflect contents that are taught during “Cool and Safe”. Each item consisted of a statement in German language and had to be answered by checking *true*, *not true*, or *I don't know*. For a correct answer, one point was assigned, for an incorrect answer or the answer *I don't know*, children received no points. A sample item reads: “You always have to keep secrets.” If children answered all of the items correctly they could reach a maximum of 9 points. The items assessing knowledge were defined as an index rather than a scale and therefore, no internal consistency was computed (Diamantopoulos & Winklhofer, 2001).

5.2.2. Behavioral intentions

To assess children's behavioral intentions in potentially risky situations, four situations that would allow for risky or secure behaviors were presented to the children. For each situation the children had the opportunity to mark for four different behavioral intentions if they would choose it in the described situation or not. For every situation, two of the response options represented secure behavioral intentions and two options represented insecure behavioral intentions. A sample situation reads as follows: “What would you do if a car driver asked you the way?” – “I would get closer to hear him better”, “I would take a step back”, “I would look around if there are other people nearby”, and “I would offer to get in the car and show him the way.” For every secure behavior strategy that was chosen by the children, one point was given, if children reported not to use the secure behavior strategy, no points were assigned. Accordingly, if children chose an insecure option, –1 point was given, while they were given no points for not choosing an insecure option. Hence, for each situation the scale had a maximum of 2 and a minimum of –2 points. The items assessing behavioral intentions were defined as an index rather than a scale and therefore, no internal consistency was computed (Diamantopoulos & Winklhofer, 2001). The items of the knowledge as well as the behavioral intention index reflected topics and situations addressed in the prevention program to ensure content validity.

5.2.3. Anxiety

Five items were developed to assess the individual level of anxiety. The items were formulated based on the Domain Specific Anxiety Questionnaire for Children (Mack, 2007). The items referred to situations addressed in “Cool and Safe”. The five items read as follows: “You are alone with strangers”, “You are alone at home”, “A car driver asks you the way”, “You are at sport practice”, and “You are playing games online”. Children could indicate the degree of their anxiety on a 5-point scale from 1 (*no fear*) to 5 (*very strong fear*). Higher values indicate higher levels of anxiety. Cronbach’s Alpha for this scale was 0.67 in the present sample and falls therefore in a range that is acceptable for research purposes.

5.2.4. Emotion regulation

To measure aspects of emotion regulation that are especially important with respect to the prevention of child sexual abuse the Emotion Awareness Questionnaire (Rieffe, Oosterveld, Miers, Meerum Terwogt, & Ly, 2008) was used. Three subscales were selected for the evaluation of “Cool and Safe”. The subscales Verbal Sharing of Emotions (3 items), Not Hiding Emotions (5 items), and Analyses of Emotions (5 items) were included in the study. All items could be answered on a 3-point scale from 1 (*not true*) to 3 (*often true*). A sample item reads as follows. “It is important to understand how I am feeling.” (Analyses of Emotion). The internal consistencies for two out of the three emotion regulation scales were in an acceptable range. For Not Hiding Emotions the $\alpha = .74$ and for Analyses of Emotions the $\alpha = .70$. The internal consistency for the Verbal Sharing of Emotions scale did not fall in an acceptable range ($\alpha = .39$). Therefore, it was decided to eliminate this scale from all further analyses.

5.2.5. Children’s acceptance of “Cool and Safe”

All children in the experimental group were asked to rate their acceptance of “Cool and Safe” after the completion of the training. The children were asked to indicate their acceptance of the program in general and with respect to the methods that were used. The answers had to be given on a 6-point scale from 1 (*very good*) to 6 (*very bad*). In addition the children were asked to indicate if they would recommend “Cool and Safe” to other children.

5.3. Procedure

The children were visited in their schools and completed the questionnaires in a group setting. After the first time of measurement, the children in the treatment group completed the “Cool and Safe” program in their regular school lessons. The children in the waiting list control group did not receive any special treatment. After a period of four weeks the second measurement was realized.

The implementation of “Cool and Safe” in the classrooms was realized by the teachers. All teachers had received information about the technical requirements and how to react in case children disclosed abuse experiences. All participating schools had computers with Internet access for students, where the training was conducted during normal school lessons. To make sure children didn’t disturb each other, every child received headphones. Classes in the control group had normal lessons during the four-week interval. At the second time of measurement, all children in the training group had finished the training.

Children in the control group could participate in the training after the post-test was completed.

6. Results

As a first step, sum scores for all measures were computed and for an easier interpretation divided by the number of items of each instrument to receive overall means (Table 2). To analyze the effectiveness of “Cool and Safe” ANOVAs with repeated-measures were computed for knowledge, behavior intentions, the two emotion regulation scales (Not Hiding Emotions, Analyses of Emotion), and anxiety. In the ANOVAs the time of measurement was treated as a within subject factor with two levels (pre-test vs. post-test) and the belonging to treatment or control group was treated as between subject factor. For the index measuring knowledge, the analysis of variance showed a significant interaction of the factors Time \times Group ($F(1, 284) = 47.35, p < .01, \eta^2 = 0.14$) With the help of *t*-tests it could be clarified that the interaction effect is based on an increase of knowledge in the treatment group from first to second time of measurement, $t(136) = 9.93, p < .001, d = 1.24$, while there is no difference in the control group, $t(148) = 0.50, p = .62, d = 0.00$. The main effects of Time ($F(1, 284) = 57.35, p < .01, \eta^2 = 0.17$) and Group ($F(1, 284) = 36.48, p < .01, \eta^2 = 0.11$) were significant as well.

With respect to behavioral intentions similar results were found. The ANOVA revealed a significant interaction of the factors Time \times Group, $F(1, 284) = 7.14, p = .01, \eta^2 = 0.03$, which was caused by a higher increase in the treatment group, $t(136) = 6.54, p < .001$,

Table 2

Overall means of knowledge, behavioral intentions, anxiety, distrust, and emotional awareness at pre-test and post-test for training and control group.

	Min/Max of scale	Pre-test		Post-test	
		Treatment <i>M (SD)</i>	Control <i>M (SD)</i>	Treatment <i>M (SD)</i>	Control <i>M (SD)</i>
Knowledge*	0/1	0.63 (0.16)	0.61 (0.17)	0.79 (0.14)	0.61 (0.19)
Behavioral Intentions*	–2/2	1.32 (0.65)	1.26 (0.60)	1.61 (0.54)	1.37 (0.54)
Not Hiding*	1/3	2.01 (0.50)	2.00 (0.55)	2.16 (0.49)	2.10 (0.51)
Analyses of Emotion	1/3	2.10 (0.51)	2.19 (0.49)	2.11 (0.53)	2.08 (0.46)
Anxiety	1/5	2.26 (0.76)	2.13 (0.73)	2.24 (0.76)	2.26 (0.75)

Note. * For these variables an increase was found in the treatment group but not in the control group.

$d = 0.76$, than in the control group, $t(148) = 2.25$, $p = .03$, $d = 0.25$. Additionally, main effects of Time, $F(1, 284) = 36.05$, $p < .01$, $\eta^2 = 0.11$ and Group, $F(1, 284) = 6.01$, $p = .02$, $\eta^2 = 0.02$ were found.

The next analysis was conducted for the two scales assessing aspects of emotion regulation. For the subscale Not Hiding Emotions a significant interaction of the factors Time \times Group ($F(1, 284) = 4.81$, $p = .03$, $\eta^2 = 0.02$) could be found. Post-hoc comparisons revealed that this interaction effect is caused by a significant increase in showing emotions and not hiding them in the training group, $t(136) = 3.91$, $p < .001$, $d = 0.46$, but not in the control group, $t(148) = 0.61$, $p = .55$, $d = 0.27$. Moreover, a significant main effect of the factor Time ($F(1, 284) = 9.49$, $p < .01$, $\eta^2 = 0.03$) was found. The main effect of the factor Group was not significant ($F(1, 284) = 1.83$, $p = .18$, $\eta^2 = 0.01$). Finally, only a marginally significant interaction of the factors Group and Time was found for the subscale Analyses of Emotions ($F(1, 284) = 3.68$, $p = .06$, $\eta^2 = 0.01$). However, this is not due to an increase in the training group, $t(136) = 0.28$, $p = .78$, $d = 0.03$, but rather is caused by a decrease in the control group $t(148) = 2.43$, $p = .02$, $d = -0.31$. There was neither a main effect of Time ($F(1, 284) = 2.31$, $p = .13$, $\eta^2 = 0.01$) nor of Group ($F < 1$).

In a next step it was analyzed if the training led to unwanted side effects like an increase in anxiety. Fortunately, the analysis of variance showed no significant main effect of the factor Time ($F(1, 284) = 2.05$, $p = .15$, $\eta^2 = 0.01$) nor of the factor Group ($F < 1$). However, a marginally significant interaction of the factors Time \times Group ($F(1, 284) = 3.44$, $p = .07$, $\eta^2 = 0.01$) was detected. *T*-tests revealed that this interaction was not caused by an increase of anxiety in the children of the training group, $t(136) = 0.26$, $p = .80$, $d = -0.04$, but rather reflected an increase of anxiety in the control group, $t(148) = 2.80$, $p = .01$, $d = 0.31$.

In a last step of the analyses the acceptance of “Cool and Safe” was in the focus. The children were asked to indicate if they would recommend “Cool and Safe” to other children. A recommendation to other children can be interpreted as reflecting acceptance. Most of the children recommended the training to other children (98.5%). In addition, to the analysis of the recommendation the acceptance of the methods and the training in general were inspected. Therefore, the answers to the single items were averaged. The overall acceptance of the training was 1.27 on the six-point scale ($SD = 0.58$). The evaluation of specific aspects of the methods of the training were comparably accepted (e.g., $M = 1.26$ for the film clips, $M = 1.41$ for the design of the program).

7. Discussion

The aim of the present contribution was to highlight the advantages that web-based training can have in the prevention of child sexual abuse. Moreover, a study evaluating “Cool and Safe” a newly developed web-based program for the prevention of child sexual abuse should be presented. Altogether, 286 children at elementary school age participated in the evaluation study. Results showed an increase in knowledge about secure behavior and secure behavioral intentions. Furthermore, children of the treatment group reported to hide their emotions less. No negative side effects such as an increase in anxiety could be found. Children evaluated the training as acceptable and the vast majority would recommend the program to other children.

The effects on knowledge and behavioral intentions are very positive and indicate that “Cool and Safe” worked well in teaching the contents. The effect sizes can be interpreted as medium to large effects and can be compared to effects of face-to-face programs (Davis & Gidycz, 2000). It has to be considered, however, that there might be a ceiling effect that can be seen in the behavioral intentions index. At post-test, the mean score is very close to the maximum of the scale. Therefore, the instrument might have underestimated the effectiveness of “Cool and Safe”.

Fortunately, no increase in the level of anxiety in children completing “Cool and Safe” could be detected. This indicates that there are no negative treatment side effects with respect to anxiety. Nonetheless, an increase of anxiety in the control group has to be mentioned. This increase cannot be explained by the program, as those children started with “Cool and Safe” after the post-test. Therefore, this might just be a coincidence. Another explanation may be the questionnaire itself. When children were confronted with the items in our questionnaire they may have worried about those topics more than before which lead to an increase of anxiety in the control group. In future studies this finding should be reinvestigated and adequate care should be taken for children in the control group, as they did not immediately learn about helpful safety strategies after completing the questionnaire for the first time and might therefore have shown an increase in anxiety.

The fact that children report to hide their emotions less after participating in the training may have motivated the children to tell more about negative experiences, which would be a very positive effect of the training. Other studies show an impact of prevention programs on disclosure of abuse experience (Barron & Topping, 2010). There were no disclosures reported by teachers in our sample. However, it is not possible to assess whether children preferred to talk to the helpline after school, as Barron and Topping (2010) reported, or if there just was no case of abuse in our sample of 137 children in the treatment group. The effects on hiding of emotions, however, imply that children show more willingness to talk about negative experiences.

Finally, the answers of the children on the items measuring acceptance made it clear, that children accepted the training and that they perceived it as helpful. This is important with regard to social validity research. Wolf (1978) pointed out that the acceptance of a treatment by its users is very important in prevention efforts because otherwise they would not participate or lose motivation. When offering prevention programs online it is especially important that children like the treatment because it is easier for them to quit an online program compared to a face-to-face program.

These results support the hypothesis that it is possible to successfully teach prevention strategies to children by using the Internet. Most of the requirements for prevention programs (see section 3) can also be met, as “Cool and Safe” has shown its effectiveness in the present evaluation, is well accepted by the children, and by using the Internet, it widens the range of teaching methods for this important area of prevention. Using the Internet for abuse prevention provides several benefits. First, as many children as desired can use an existing online prevention program without causing extra costs. This could help schools with lower budgets or in rural locations, that might have problems to offer face-to-face prevention programs. However, this only can be true if there is no commercial interest behind the program. A second benefit is the fact that online programs can easily be translated for a) children with immigration backgrounds, or b) an implementation in various countries. Third, the use of a web-based program allows teachers a maximum of flexibility when including the program in their curricula. Because of the individual conduction, children can follow the program in their specific learning speed. Also, it can be perfectly included in open learning environments as well as in conventional classroom settings. But not only schools can benefit from the existence of

online prevention programs. Parents also address the topic of sexual abuse with their children (Walsh & Brandon, 2012) and might find programs like this one helpful as well.

However, our claim is not to replace traditional prevention programs with web-based training. Social interaction and the possibility to discuss and train behavior, for example by role-play, are important facets of prevention programs (Davis & Gidycz, 2000). But the results of this study show that online prevention can either be an effective alternative when there is no face-to-face program available, or can very well serve as a repetition that can be implemented some time after a face-to-face prevention program.

Of course, some questions remain unanswered by this study. First, it would be very interesting to compare a web-based prevention program not only to a waiting list control group but to have a face-to-face training with the same content and duration as a control condition. This would help to assess whether the effects of web-based prevention are as good as those of traditional programs.

Second, for ethical reasons it is not possible to assess how children react to attempts of sexual abuse in reality. Even though Fryer, Kraizer, and Miyoshi (1987) could predict whether children would go with a stranger after a stranger danger prevention program by their knowledge, actual behavior is hard to measure when it comes to sexual abuse, especially by people known by the child. However, in the context of Internet safety there might be ways to test children's willingness to give away private information and therefore assess the effects of prevention programs on actual behavior. Of course, study designs would have to be considered very carefully in every case, but this could be an interesting question that needs to be answered by future research.

8. Conclusion

This study showed that online programs can be effective in teaching children knowledge and behavioral intentions for the prevention of child sexual abuse without causing negative side effects. The "Cool and Safe" program is available in German and French at www.coolandsafe.eu. The program is free of charge to users. This approach to prevention of sexual abuse makes it easier for children, parents, and teachers to access information and gain knowledge about this very important topic.

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