Interaction Competencies with Children – Development and Theory of Change of a Preventative Intervention for Teachers in the Context of Socially Accepted Violence

Anette Kirika  Tobias Hecker

Faculty of Psychology and Sport Sciences and Institute for Interdisciplinary Research on Conflict & Violence, Bielefeld University, Bielefeld, Germany

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Prevention · School violence · Behaviour change · Mechanisms of action

Abstract
Violence against children is a global problem and has massive negative consequences for individuals and society. In many countries violence in education is socially accepted and widespread. Violence against children has multiple individual and societal causes and maintaining factors. Even in schools, children are frequently exposed to violence, which speaks to the need for school-based preventative approaches. The target group for preventative interventions should primarily be the individuals perpetrating the violence – in this context: teachers. The causal factors should be addressed comprehensively while accounting for the scarcity of resources in these contexts. This overview describes and discusses the preventative intervention Interaction Competencies with Children – for Teachers and its mechanisms of change. The intervention is a 5.5-day training workshop for teachers in societies where violent discipline is accepted. The aim of the intervention is a behaviour change in teachers. A central component is the dynamic of the intervention, which enables a readiness in teachers to change their behaviour, improving teachers’ competence, and increasing their motivation to act. Further, the intervention operates on different levels in that it addresses normative aspects at the school system level as well as individual factors. How different methods and topics operate and interact at the individual and school levels should be addressed through future evaluations of the process of behaviour change.

Interaction Competencies with Children – Entwicklung und Wirkmechanismen einer präventiven Intervention für Lehrkräfte im Kontext gesellschaftlich akzeptierter Gewalt

Schlüsselwörter
Prävention · Gewalt an Schulen · Verhaltensveränderung · Wirkmechanismen

Zusammenfassung
Consequences and Causes

These sometimes severe experiences of violence in childhood can have multiple and wide-reaching consequences for physical and mental health, well-being, psychosocial functioning, and school performance [Gershoff, 2017]. In addition to the physical marks, violence can lead to lasting psychological damage. Ongoing physical and emotional violence is associated with increased aggression, antisocial behaviour, substance abuse, anxiety disorders, post-traumatic stress disorder, depression, school dropouts, and suicide attempts [Gershoff and Grogan-Kaylor, 2016; Hecker et al., 2016]. The damage caused by violence is also associated with significant economic losses to society [Pereznielo et al., 2010].

The question arises of why violence remains so stable at a high level in spite of the negative individual and societal consequences. From a psychological perspective, there are several related and intersecting issues that lead to or perpetuate the use of violence against children [Antonowicz, 2010; Maternowska and Fry, 2018]. The model of the cycle of violence describes the relationship between violence experienced in childhood and violence perpetrated in adulthood and how this individual cycle becomes an intergenerational cycle [Widom and Wilson, 2015; Masath et al., 2021]. In this way, systems and societies emerge in which violence against children becomes a social norm [Wright and Fagan, 2013]. When the use of violence in parenting and education is a societal norm, it influences how such violence is perceived and processed, and thus can be a driving force in its perpetuation [Lilleston et al., 2017]. In a qualitative study by Kyegombe et al. [2017] in which 71 school children were interviewed in Uganda in 2014, a certain degree of physical violence perpetrated by teachers was endorsed by the children. It was also reported that there have been few parents who have taken their children out of school because they disagreed with the implementation of an intervention to prevent violence. These examples clearly highlight the societal expectations in countries such as Uganda and show the extent to which violence in education is socially embedded. Societal attitudes influence the professional identity of teachers [Beijard et al., 2004]. The theoretical model of social causes of physical violence illustrates how social norms, societal expectations, individual attitudes, and beliefs are interrelated and interact with each other [Straus, 2010]. Socialization in a society where violence against children is a norm perpetuates beliefs that justify corporal punishment, such as, for example, the notion that harsh discipline leads to being respected or improves academic performance [Kish and Newcombe, 2015].

Another explanation for the perpetuation of violence against children is provided by the delayed gratification model [Mischel et al., 1989]. Physical violence when chil-
Prevention of Violence by Teachers

Children misbehave usually leads to immediate compliance. Due to the pain or fear, children usually stop their misbehaviour right away for a short time. Therefore, the use of physical violence is reinforced instantly and consistently. In personal reports from teachers, caning is often described as a “quick and easy solution with low costs” [Kyegombe et al., 2017]. In the light of the cost-benefit analysis in combination with immediate reinforcement, corporal punishment appears to be advantageous over alternative, non-violent methods, which are more often effective in the long-term [Mweru, 2010]. This dynamic may further explain the perpetuation of violence against children.

Another factor that promotes violence against children is stress [Hecker et al., 2018; Masath et al., 2021]. Teachers’ working conditions, especially in low-resource contexts, are characterized by long working hours, overcrowded classrooms (with class sizes of over 100 students in one class), teaching multiple grade levels together, poor payment, and inadequate equipment [Masath et al., 2021; Senyonga and Hecker, 2021]. According to the frustration-aggression hypothesis, the likelihood of aggressive behaviour increases with higher levels of frustration [Berkowitz, 1989]. In addition, there may be a lack of knowledge regarding alternative educational strategies or their effectiveness, so that teachers are often overstrained, feel helpless, and corporal punishment or emotional violence is perceived as the only way to ensure silence and order in the classroom [Nkuba et al., 2018].

Prevention of Violence

Looking at the high prevalence and potentially severe consequences of violence against children, the urgency of preventive approaches becomes clear. To date there are few evidence-based and rigorously evaluated programs tailored to the prevention of socially accepted violence by teachers in schools while also addressing low-resource contexts [Gershoff, 2017; Lester et al., 2017]. Notable among these is the Intervention Irie Classroom Toolbox, a program designed to promote socio-emotional competence through training in positive, non-violent parenting methods [Baker-Henningham et al., 2019]. Over an 8-month period, the program aims to improve the classroom atmosphere by (1) creating an emotionally supportive environment, (2) preventing and managing behaviour problems, (3) teaching social and emotional skills, and (4) improving individual and class-wide behaviour planning. In this intervention for preschools and elementary schools, violence against children is not directly addressed. However, through positive interactions there is a significant decrease in violence against children [Baker-Henningham et al., 2019]. Another example is the Good Schools Toolkit, an intervention that implements a variety of behaviour-changing activities throughout the school over an 18-month period [Devries et al., 2015]. The activities are designed to contribute to a better learning environment, mutual respect, understanding of power structures, and use of non-violent methods. The intervention addresses teachers, students, school administrators, and parents. In a cluster-randomized control trial in Uganda, students reported significantly fewer experiences of violence by teachers after the intervention [Devries et al., 2015].

To make the prevention of violence efficient, successful, and sustainable, the target group of intervention should be individuals who utilize violent discipline. On the one hand, attitudes and behaviour towards violence should be addressed and questioned directly. On the other hand, alternative, non-violent methods should be developed. In order to comprehensively apply the intervention in settings with low resources, the intervention should be short, adaptable to different target groups, feasible for non-psychologists to implement, and easy to integrate into the everyday life of the target group [Scharpf et al., 2021]. These criteria are fulfilled by the intervention Interaction Competencies with Children. The intervention was developed by an interdisciplinary and intercultural team of researchers and teachers from Germany and several African countries and has been implemented in different countries since its creation. In the meantime, versions for different target groups have been developed: for teachers, caregivers in orphanages, and parents. In the following, the intervention for teachers will be described and its potential mechanisms of action will be discussed. In addition to a detailed description of the intervention, we provide explanations for the structure, content, and methods of the intervention and discuss assumptions regarding how these characteristics contribute to an effective decrease in violence.

The Intervention: Interaction Competencies with Children – for Teachers (ICC-T)

The aim of the intervention is the prevention of violence. The target group is teachers in countries where violence against children in schools is socially accepted. In other words, the intervention should lead to a change in teachers’ behaviour. Therefore, the intervention addresses a variety of causal and perpetuating factors as well as both environmental and individual aspects. One assumption of this intervention is that teachers are overburdened due to a lack of alternative strategies to effectively manage everyday school life and therefore feel helpless [Kaltenbach et al., 2018; Nkuba et al., 2018]. The goal is to counteract this helplessness by providing knowledge, promoting idea generation through discussions, reflections, and exchange with colleagues, and developing and practising...
alternative interaction strategies. The focus is on changing teachers' attitudes towards violence while teaching alternative, non-violent strategies and basic interaction skills with children. The intervention is tailored to low-resource contexts to enable easy dissemination. Due to the minimalist design no other tools are needed than the manual and, if possible, a blackboard or similar. It is applicable for teachers at a variety of school types and educational levels. Taking five and a half days, the intervention is brief and the transfer into the daily work of the teachers is easy [Kaltenbach et al., 2018; Nkuba et al., 2018; Scharpf et al., 2021].

The theoretical and methodological foundation of the intervention are fundamental aspects that are crucial to its effectiveness. The content of the intervention was developed based on attachment theory, behaviour modification theory, and social learning theory. Central aspects of the non-violent interaction between teachers and students are based on the work of the Democratic Classroom [Dreikurs et al., 2004]. For the implementation of the content, established methods that have been shown to lead to a change in behaviour, such as inputs, role plays, discussions, and reflections, are used [Michie et al., 2008]. The structure of the training is important. It allows for a dynamic wherein a willingness for change is initially achieved, which is then followed by practical alternative strategies. Teachers critically reflect on their experiences with violence as victims and perpetrators, which enables a willingness for change. In a second step, teachers learn and practise basic interaction skills with children, which improves the quality of teacher-student interaction [Nkuba et al., 2018]. The focus is on teaching non-violent interaction strategies and promoting a warm, sensitive, and reliable teacher-child relationship. Thus, physical and emotional violence are actively reduced, and positive interactions are actively facilitated. The change in attitude towards violence and the change in behaviour simultaneously intertwine with and complement each other. Over the course of the week, an atmosphere develops in which curiosity, willingness to change, competence to act, and readiness to act (through motivation and social cohesion) catalyse each other (see Figure 1). In the beginning, trainees often encounter a lot of scepticism among the participants, which turns into enthusiasm and motivation over the course of the intervention. We assume that the atmosphere that unfolds during the course of the week has a significant influence on the participants' motivation and concrete intention to change their behaviour. Due to the
complex dynamics of the mechanisms of change, we would expect that the same effects would not be achieved if the training were, for example, spread over several weekends instead of one week.

The key principles of the intervention lay in its participatory approach, trusting atmosphere, openness, and practical orientation. A key aspect is the role and attitude of the trainers. From the beginning, it clearly stated that the aim of the intervention is not to teach about what to do and what not to do, but rather to provide the opportunity for the mutual and non-judgmental exchange and reflection. The trainers also repeatedly emphasize that the teachers are the experts of their profession, so that the participants feel understood and taken seriously. This aspect is complemented by the flexibility of the training. Although all sessions should be conducted according to the manual, the concrete examples can and should be flexibly adapted to the context of the participants. This leads to active participation of teachers in the training and their constant search for concrete implementation in their everyday work. This allows participants to better identify themselves with the content, which increases the likelihood that the methods will be applied [Prestwich and Kellar, 2014].

We see the group dynamics of the participants as another central impact factor, especially on the environmental level. On the one hand, eating together, playing games, singing, discussing, role plays, etc. promote cohesion, cooperation, and collegiality, which can have a positive effect on the relationship between teachers. A better atmosphere can reduce stress and thus have a preventive effect on violence [Masath et al., 2020]. On the other hand, we assume that the perpetuating factors of such violence are the societal norms and expectations [Straus, 2010]. Therefore, a cornerstone of this intervention is the explicit examination of the applicable norms, rules, and laws of the respective country and the examination of personal experiences with and attitudes towards violence. Participants should recognize how these aspects interact with each other and influence their behaviour. The norms and attitudes of one’s immediate environment have the greatest influence on behaviour [Kilianowski, 2017]. Through the intervention, the norms within the school system change. Repeatedly, in small groups and/or with the whole group, attitudes towards violence are critically reflected and beliefs are questioned. Guiding questions for the small groups and discussion moderation by the trainers reveal contradictions and thus gradually change attitudes. These discussions should lead to an individual change of attitude and, simultaneously, to a change in the social norms within the teaching staff through mutual exchange. Ideally, a dynamic develops in which participants themselves uncover the contradictions and verbalize adjusted attitudes. We hypothesize that the social norms within the school system can be changed more effectively when a large proportion of teachers participate in the intervention together. If teachers from one school were to participate in different interventions at different times, a reduction in violence could still be expected, but a central mechanism of action – the group dynamic – would be eliminated [Cartwright, 1951]. However, the extent to which this dynamic would affect the effectiveness of the training cannot be concluded at this point.

A crucial factor is the participation of school leadership. In previous studies, members of school leadership were excluded from participation to ensure an open and trusting atmosphere. In a recent study in Ghana, Tanzania, and Uganda, after careful consideration, we decided to include school leadership. Individuals in leadership positions take an influential role in the dissemination and change of norms [Cartwright, 1951]. We assume that the inclusion of school leadership will stabilize the norms within the school that have changed as a result of the intervention and therefore counteract the unchanged social norms that are carried to the school by parents and others. Although there is no empirical evidence at this stage, field reports show that members of school leadership play a key role and are likely to have a noticeable impact on the sustainability of implementation. According to recent reports of trainers and participants, the participation of school leadership does not have a negative impact on the atmosphere or openness of the intervention. In addition to the normative aspects of violence, the intervention focuses on individual aspects in order to interrupt the cycle of violence. The individual content-related aspects and their methodical implementation will be addressed in the detailed description of the sessions.

Set-Up and Implementation of ICC-T

With the help of a manual¹ and intensive preparation, suitable professionals (e.g., teachers, psychologists) can carry out the intervention. It is helpful if trainers are familiar with the everyday work of teachers. A careful preparation phase is necessary to be able to address possible questions from the participants and to lead discussions about controversial topics. It is advisable to carry out the intervention during the school holidays because this way all teachers of a school are more likely to be able to participate. At the same time, the school’s facilities can be used to house the training. At least two trainers who come from the specific linguistic and cultural contexts of the participants should conduct the training. The optimal group size is between 20 and 30 participants. Costs that arise in the context of the training are an expense allowance and possibly travel and accommodation costs for the

trainers, printing costs for the training materials, and possibly catering for the participants. In the context of research projects, the intervention is offered free of charge to the teachers, who also receive a certificate if they have participated for at least four full days.

In a 5.5-day workshop with a total of 22 sessions, the following topics are covered: (a) teacher-student interaction, (b) prevention of violence, (c) effective discipline strategies, (d) identifying and supporting burdened students, and (e) implementation in everyday school life (see Table 1 in the online supplementary materials, available at www.karger.com/doi/10.1159/000525241). The five topic areas are described in more detail below.

1. Teacher-Student Interaction. As the intervention is carried out in countries where violence in education is socially accepted and partly expected, it is important to reduce resistance at the beginning. On the first day, the focus is on child development, communication with children, and teachers as role models – the topic of violence is intentionally not addressed on the first day. These sessions serve as a non-confrontational entry to engaging with the topic in order to counteract scepticism and arouse interest. In addition to reducing resistance, the professional identity of the teachers should be discussed and enhanced. These sessions aim to promote empathy and understanding of students’ behaviour, raise awareness of teachers’ responsibilities as role models, create a good learning atmosphere, and improve the interaction between teachers and students. Teachers should not see their responsibility only as the mere transmission of knowledge but be aware of their influence on the personal development of students. The illustration and experience of influence possibilities and action competencies can also counteract the often described helplessness [Spill et al., 2011].

2. Violence Prevention. The cognitive change of perspective is achieved not only by understanding children’s behaviour, but also through knowledge of the consequences of violence against children. In these sessions, participants are sensitized to the negative consequences of physical and emotional violence. In addition to the cognitive willingness for change, a willingness for change on an emotional level should take place. The session on self-reflection is repeatedly described by the trainers as a central turning point. In this double session, participants reflect on their own experiences of violence in childhood and its connection to their current behaviour. It is important that participants re-experience the feelings and thoughts they had as children receiving corporal punishment. Participants should also consciously process the emotions and cognitions they have when they use violence. Re-experiencing and consciously reflecting on the feelings enables a change of perspective, to which most participants react very emotionally. Through self-reflection on one’s own experiences with physical and emotional violence in childhood and one’s current behaviour towards children, the past experiences and current behaviour relate to the corresponding feelings and their consequences. The previously theoretical and abstract model of the cycle of violence becomes very personal and concrete. This realization could be interpreted as a decisive turning point in the participants’ willingness to change. In addition, reflecting on one’s own experience when punishing children can activate self-monitoring, which in turn can have a preventive effect on violence against children [Michie et al., 2009]. By becoming aware of one’s own negative feelings and thoughts, such as guilt and shame due to one’s own actions (e.g., slapping a child), these behaviours will become negatively associated. Thus, the immediate compliance of the child is juxtaposed with the negative feelings and thoughts. The negative feelings and thoughts are linked to the teachers’ own behaviour, which reduces the likelihood of the behaviour.

3. Non-Violent Strategies. As soon as the participating teachers demonstrate a cognitive and emotional willingness for change, it is possible to start working on alternative strategies. In this topic area, a variety of strategies for behaviour modification are introduced. Specific ways to maintain and reinforce positive behaviour and effectively modify or improve misbehaviour will be developed and practised with teachers. Cognitions, behaviours, and emotions will be addressed to achieve comprehensive behaviour modification. Knowledge of alternative strategies will be provided. The strategies are discussed together, elaborated, and practised in role plays. Finally, the experience during the role plays is reflected upon. By teaching non-violent alternatives, teachers are empowered and the feeling of helplessness caused by a lack of alternatives is reduced. In order to prevent frustration, it is important to always make clear that the effect of alternative methods takes time [Kwasnicka et al., 2013]. Therefore, addressing both short- and long-term changes in children’s behaviour is a recurring topic.

4. Supporting Burdened Students. These sessions aim to raise awareness of common emotional and behavioural problems children may experience when coping with difficult life situations. Teachers should learn to recognize these children and support them in the school setting. A central, recurring aspect of this topic is the development of an understanding of children’s behaviour by teachers taking on their perspective. This can help to avoid taking children’s misbehaviour personally. Rather than reacting to the child’s behaviour, the child’s needs can be adequately addressed through a professional interpretation of the behaviour [Johnson et al., 2019]. This in turn has positive effects on the teacher-child relationship, reduces power struggles, contributes to the teacher’s self-efficacy, and counteracts feelings of helplessness [Kaltenbach et al., 2018].
5. Implementation and Integration into Everyday School Life. In order to increase the effectiveness and ensure the implementation of the alternative methods, individual and environment-related factors should also be taken into account [Ozer, 2006]. In these sessions, a concrete implementation plan for the learned strategies in everyday school life should be developed. The plans for implementation should be as concrete as possible in order to increase the likelihood of actual implementation in daily school life [Achtziger et al., 2008]. The teachers’ individual willingness and ability to act should be empowered through role plays, among other strategies. Since the teachers’ professional environment is an important factor, the possibilities for support and peer exchange with colleagues are discussed [Ozer, 2006]. Therefore, possibilities for support (between school leadership and the teachers, but also between the teachers themselves), ways to improve the working climate and possibilities for supervision and cooperation with psychosocial counsellors and parents will be discussed. Through this the sustainability of change at school level should be strengthened. In addition, anticipating the presence of unchanged societal norms should help to develop strategies to counter such norms.

Methods such as theoretical inputs, discussions, small group work, self-reflection, and role-play exercises will help to make the workshop practical and encourage active participation. In many sessions, different methods are combined with each other.

Current State of Research on ICC-T

The feasibility and effectiveness of the ICC-T intervention in reducing violence at schools has been demonstrated in different studies in a variety of countries. In a feasibility study in a Tanzanian primary school with 30 teachers which evaluated the training, the participant motivation and acceptance of the content was very high at the beginning of the intervention. Many participants reported integrating many of the strategies into their daily work 3 months after the intervention. A large number of teachers reported an improvement in their relationships with students and in the behaviour of students [Kaltenbach et al., 2018]. In cluster-randomized controlled trials in eight secondary schools in Tanzania with a total of 158 teachers and 486 students, as well as in 12 primary schools with 173 teachers and 914 students, violence against children decreased significantly according to self-reports from teachers and students in the intervention group [Nkuba et al., 2018; Masath et al., 2020]. Further, teachers’ attitudes towards violence changed as well. In addition, violence between students decreased significantly in primary schools. This suggests a spill-over effect of the training content and emphasizes the position of teachers as role models for students [Masath et al., 2020]. Similar results were shown in a cluster-randomized controlled trial in Uganda: 548 students and 343 teachers in 10 schools reported significantly less emotional and physical violence in the intervention group at follow-up [Senyonga et al., 2022]. The ICC-T intervention aims to be easily adaptable to different settings and effective in reducing violence in different types of schools, cultures, and societies. Initial evidence is available from results in Tanzania and Uganda in secondary and primary schools. Currently, the intervention is examined in a multi-centre cluster-randomized controlled trial in Tanzania, Uganda, and Ghana. This study includes 72 schools, more than 1,000 teachers and more than 2,500 students in primary and secondary schools [Scharpf et al., 2021]. This allows for a unique comparison in three different cultural settings in West and East Africa where the legal framework surrounding the use of violent discipline in schools differs – but its use in schools is socially accepted in each of the countries. Through the representative samples within the countries, we hope to be able to make statements about the generalizability of the results. After a promising feasibility study in Haiti, the intervention is now being tested in a cluster-randomized controlled study with 36 schools [López García et al., 2022]. Currently a further feasibility study is being conducted in Pakistan and, following successful completion, will be investigated in a cluster-randomized controlled trial. In this way, we hope to be able to make statements about the adaptability and generalizability of the intervention in the coming years and to contribute significantly to the prevention of violence.

Outlook

Socially accepted violence in education has multiple causes and perpetuating factors; therefore, prevention must be comprehensively designed. The ICC-T intervention addresses many of the factors associated with teacher violence, such as attitudes, norms, the cycle of violence, questioning of beliefs, changing perspectives, and lack of alternative strategies. A variety of methods are used to implement these topics. The studies described above show that the intervention is effective in decreasing violence. To date, however, we can only make statements about the effectiveness of the entire intervention but not about the effects of specific individual methods and topics and their interaction. The mechanisms of action assumed in this article seem plausible but must be investigated systematically.

Behaviour change is a process. In order to understand the different roles of the dynamics of the intervention (willingness to change, competence, and willingness to act), the atmosphere, the topics covered and methods ap-
plied, and how they interact with each other, an evaluation of the processes of change utilized by the intervention should take place in future studies [Heino et al., 2021]. The aim is to understand the causal processes of behaviour change. Further, the potential differences in how the intervention functions in different groups could further contribute to the understanding of change processes [Beattie et al., 2022]. With regard to this, future studies should investigate the factors that change norms within the school system and how these interact with individual attitudes. In addition, the role of school leadership, other authority figures, or parents, and which aspects of the intervention affect the school climate and communication between teachers remain unclear. Further aspects to be investigated include identifying which methods contribute to an improved change of perspective, increased self-efficacy, reduced helplessness, increased motivation, etc., and which individual differences exist, as well as which factors, for example stress or the implementation of supervision, influence the sustainability of the intervention.

The intervention is effective in reducing violence but also has some limitations. Environment-related aspects of a structural nature, such as large class sizes or a lack of equipment, cannot be changed through the training. In our studies we are repeatedly reminded about the urgency of protecting children from violence in their homes, as well. We have initially focused on the school context for the following reasons: first, schools offer the unique opportunity for the structured implementation of broad-based preventative programs. Second, schools are often the starting point for social change. Findings to date show that violence by teachers is decreasing and that children’s behaviour is changing in the school context – although children continue to be exposed to violence in the home environment. Despite our focus on schools, we see the need for preventative interventions for parents and caregivers. A supplementary module, through which parents are additionally involved in the intervention, seems very promising in a first feasibility study. However, whether children will benefit more from this expanded school-based intervention that includes both teachers and parents needs to be investigated further.

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Conflict of Interest Statement

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Author Contributions

Anette Kirika and Tobias Hecker developed the idea and structure of the article together. They wrote, critically reviewed, and discussed the manuscript together. Both have released the final version of the manuscript for publication.

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Kirika/Hecker


