Effects of a violence prevention intervention in schools and surrounding communities: Secondary analysis of a cluster randomised-controlled trial in Uganda

Katherine G. Merrill[a,*], Louise Knight[a], Sophie Namy[b], Elizabeth Allen[c], Dipak Naker[b], Karen M. Devries[a]

[a] London School of Hygiene and Tropical Medicine, Department of Global Health and Development, 15-17 Tavistock Place, London, WC1H 9SH, United Kingdom
[b] Raising Voices, Plot 16 Tufnell Drive, Kamwokya P.O. Box 6770 Kampala, Uganda
[c] London School of Hygiene and Tropical Medicine, Department of Medical Statistics, Keppel Street, London, WC1E 7HT, United Kingdom

ARTICLE INFO

ABSTRACT

The Good School Toolkit is effective in reducing staff violence against children in Ugandan primary schools. A secondary analysis of cluster-randomised trial data was conducted to investigate intervention effects on school operational culture, and on normative beliefs and violence against children from caregivers outside of school. Students and staff completed cross-sectional surveys at baseline in 2012 and follow-up in 2014. Students' caregivers completed follow-up surveys only. Data from 3820 students, 597 staff, and 799 caregivers were included in cross-sectional analyses at follow-up. Statistically significant intervention effects were observed for aspects of school operational culture, including students' greater perceived emotional support from teachers and peers, students' greater identification with their school, students' and staffs' lower acceptance of physical discipline practices in school, and students' and staffs' greater perceived involvement in school operations. Outside the school, the intervention was associated with significantly lower normative beliefs accepting the use of physical discipline practices in schools (adjusted mean difference, AMD: −0.77; 95%CI: −0.89 to −0.66; p < 0.001) and at home (AMD: −0.67; 95%CI: −0.80 to −0.54; p < 0.001), based on aggregated caregiver reports. No differences between groups were observed in past-week violence against children at home. This intervention shows promise as a platform for addressing violence against children within the school environment and surrounding community.

1. Introduction

Violence against children is a serious public health issue worldwide and a human rights violation, highlighted in the UN Convention on the Rights of the Child (Pinheiro, 2006). The consequences of such violence are devastating, spanning through childhood and into adulthood. Exposure to violence is a known risk factor for depression (Fergusson, Boden, & Horwood, 2008; Lansford et al., 2002; Sternberg, Lamb, Guterman, & Abbot, 2006), conduct disorder (Fergusson et al., 2008; McCabe, Hough, Yeh, Lucchini, & Hazen, 2005; Sternberg et al., 2006; Weaver, Borkowski, & Whitman, 2008), aggression (Herrenkohl, Egolf, &

Herrenkohl, 1997; Lansford et al., 2002), alcohol abuse (Fergusson et al., 2008; C. Widom, Ireland, & Glyyn, 1995), poorer health status (Johnson, Cohen, Kasen, & Brook, 2002; Thomas, Hypponen, & Power, 2008), lower educational achievement (Boden, Horwood, & Fergusson, 2007; Lansford et al., 2002), and lower earnings in adulthood (CS. Widom, 1998). Beyond harming the individual child, violence against children impacts families, communities, and broader society alike by reducing children's potential (Naker, 2017) and resulting in possible economic losses to countries (Pereznieto, Harper, Clench, & Coarasa, 2010).

Recent national surveys in sub-Saharan Africa indicate widespread reports of violence from school staff against children. More than half of young adults surveyed in Kenya (UNICEF, 2012b) and in Tanzania (UNICEF, 2011) report having experienced physical violence from a teacher before age 18. In Luwero District, Uganda, over 50% of students report having experienced physical violence and over 30% emotional violence from school staff in the past week (Devries et al., 2014). Prevalence in Uganda remains high even though corporal punishment was banned in schools by the Ugandan Ministry of Education and Sports in 1997 (UNICEF, 2012a).

School-aged children spend more time in school than in any other location besides the family home (Pinheiro, 2006), and researching violence against children in schools has been deemed a global priority (Pinheiro, 2006). Most existing research on school-based interventions has been carried out in high-income settings and has investigated intervention effects on conduct disorder (Brantley, Brantley, & Baer-Barkely, 1996; Mark Eddy, Reid, & Fetrow, 2000; Twemlow et al., 2001), bullying (Cross, Pintabona, Hall, & Hamilton, 2003; Frey et al., 2005; Stevens, De Bourdeaudhuij, & Van Oost, 2000), child sexual abuse (Dhooper & Schneider, 1995; Krahe & Knappert, 2009), and dating violence (Adler-Baeder, Kerpelman, Scramm, Higginbotham, & Paulk, 2007; Avery-Leaf, Cascardi, O'Leary, & Cano, 1997; Foshee et al., 1998) among students. School-based interventions aiming to reduce teacher violence in low or middle-income countries are almost non-existent. For example, a study on the Incredible Years programme in Jamaica found the programme to improve teachers' positive behaviours (e.g. use of praise) and discourage negative behaviours (e.g. critical comments) (Baker-Henningham, Walker, Poweel, & Gardner, 2009), suggesting that teachers' practices can be changed in an intervention setting.

To fill this gap in the knowledge base, the Good Schools Study was carried out from January 2012 through September 2014 in 42 primary schools in Luwero District, Uganda. The study was designed to assess the impact of the Good School Toolkit on children's experiences of violence, incorporating four evaluation components: a cluster-randomised controlled trial (Devries, Knight, et al., 2015), a qualitative study (Kyegombe et al., 2017), an economic evaluation (Greco et al., 2016), and a process evaluation (Knight et al., 2016). The trial found the Toolkit to have resulted in a 42% reduction in risk of past-week physical violence from school staff (OR: 0.40; 95%CI: 0.26 to 0.64, p < 0.001) over an 18-month intervention period, as reported by students (Devries, Knight, et al., 2015). The trial showed improvements in students' safety and wellbeing in school, but no changes in students' mental health status or educational performance (Devries, Knight, et al., 2015).

1.1. The Good school toolkit: overview and programme theory

The Good School Toolkit is a complex school-wide intervention developed by Raising Voices, a Ugandan non-profit organisation (www.raisingvoices.org) (Devries et al., 2013). The Toolkit is designed to reduce all forms of violence in school and create a better learning environment, where students can feel safe, invest in their school, form attachments with teachers and peers, and develop a sense of belonging (Naker, 2017). Student violence and bullying victimization are less likely to occur in schools with a positive school environment, including greater perceived fairness and clarity of rules (Bradshaw, Waasdorp, Debnan, & Johnson, 2014; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005), greater support from teachers (Bradshaw et al., 2014; Espelage, Polanin, & Low, 2014; Flaspohler, Elfstrom, Vanderzee, & Sink, 2009), stronger administrative commitment to a school policy on violence (Astor, Benbenishty, Vinokur, & Zeira, 2006; Bradshaw et al., 2014), stronger feelings of school attachment (Stewart, 2003), greater involvement of parents in school activities (Stewart, 2003), and intolerance of sexual harassment (Espelage et al., 2014).

Raising Voices provides schools with booklets, posters, and facilitation guides for over 60 Toolkit activities, most of which are designed to be delivered in a group setting. Activities—which include student discussions, debates, and booklet clubs—address mutual respect, power relations, non-violent discipline techniques, and classroom management strategies, among other topics. Several behaviour-change techniques are incorporated, such as setting goals, making action plans, implementing rewards and re-inforcement, and creating social support for change (Abraham & Michie, 2008). Implementation takes place over 18 months through a six-step process, based on the Transtheoretical Model of Change (Prochaska & Velicer, 1997). Raising Voices staff provide a three-day training and ongoing one-on-one support to two student and two staff- 'protagonists' in each school. These motivated individuals are charged with engaging other staff, students, administrators, and parents with setting school-wide goals and developing action plans, with specific dates for deliverables. The protagonists facilitate activities in partnership with other school personnel. Raising Voices further supports schools to establish a *Students' Committee*, *Teachers' Committee*, and *Parents' Committee* which coordinate activities, and a Students' Court designed to improve student behaviour through peer disciplining.

The Good School Toolkit centres on altering a school's operational culture. Founded in a concept that has existed for more than 100 years (Perry, 1908), school operational culture refers to how students and staff experience, behave and feel at their school (Cohen, 2006). School 'climate'—the term more often used in the literature—suggests prevailing conditions outside of one's control; in contrast, 'culture' recognizes the reality of a school as created by its members (Naker, 2017). To fundamentally shift an environment that tolerates, incubates, and perpetuates violence, engagement is required of stakeholders at all levels within the school (teachers, administrators, students, caregivers), as well as of stakeholders outside the school (community members, siblings) (Naker, 2017). Studies show that use of violence as a form of discipline is typically a socially-normalised practice, reflecting cultures and traditions beyond the immediate school setting (Pinheiro, 2006).

Expanding on the work of Moos et al. (Moos, 1979), Raising Voices conceptualize school operational culture as encompassing