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Research article

Promoting young children's interpersonal safety knowledge, intentions, confidence, and protective behavior skills: Outcomes of a randomized controlled trial

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ABSTRACT

Promoting young children's interpersonal safety knowledge, intentions confidence and skills is the goal of many child maltreatment prevention programs; however, evaluation of their effectiveness has been limited. In this study, a randomized controlled trial was conducted examining the effectiveness of the Australian protective behaviors program, *Learn to be safe with Emmy and friends*™ compared to a waitlist condition. In total, 611 Australian children in Grade 1 (5–7 years; 50% male) participated, with assessments at Pre-intervention, Post-intervention and a 6-month follow-up. This study also included a novel assessment of interpersonal safety skills through the Observed Protective Behaviors Test (OPBT). Analyses showed participating in *Learn to be safe with Emmy and friends*™ was effective post-program in improving interpersonal safety knowledge (child and parent-rated) and parent-rated interpersonal safety skills. These benefits were retained at the 6-month follow-up, with participating children also reporting increased disclosure confidence. However, *Learn to be safe with Emmy and friends*™ participation did not significantly impact children's disclosure intentions, safety identification skills, or interpersonal safety skills as measured by the OPBT. Future research may seek to evaluate the effect of further parent and teacher integration into training methods and increased use of behavioral rehearsal and modelling to more effectively target specific disclosure intentions and skills.

1. Introduction

In recent years, there has been a widespread proliferation of harm prevention programs for young children. These programs have arisen from significant community concern about children's wellbeing and safety including prevention of abuse and bullying. Indeed, high prevalence rates for maltreatment across childhood have been reported internationally, ranging from 12.7% for child sexual abuse to 36.3% for emotional abuse (Stoltenborgh, Alink, & IJzendoorn, 2015), as well as estimations of up to 35% lifetime prevalence for bullying. However, despite the plethora of harm prevention programs to address these concerns, questions remain about the effectiveness of these programs (Walsh, Zwi, Woolfenden, & Shlonsky, 2015). Moreover, even when an evaluation has been completed, many of them have lacked the methodological rigor recommended for interventions, including use of randomization,

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control groups, blind evaluators, follow-up analyses and attention to fidelity checks (Davis & Gidycz, 2000; Lynas & Hawkins, 2017; Sanderson, 2004; Topping & Barron, 2009). Without rigorous evaluation, the true benefit of these programs cannot be known, and decisions regarding program adoption and implementation will rest on incomplete or inadequate empirical evidence.

While methodologically rigorous child protection program evaluations do exist, these have still typically been restricted to programs targeted towards single domains of harms such as child sexual abuse (CSA; Morris et al., 2017). However, despite targeting different areas of child protection, there has been little co-ordination in implementing these programs and not all evaluated programs are available for dissemination within communities seeking to use them (Brassard & Fiorvanti, 2015). Given that many single-harm focused programs share similar concepts and skills (e.g. interpersonal safety skills such as identifying feelings of a lack of safety); it may be more time and cost-effective to integrate these prevention programs. Protective behaviors programs (Flandreau-West, 1989) differ from single harm program such as CSA prevention in that they aim to provide this integrated approach, teaching young children that "*we all have the right to feel safe all the time*" and "*nothing is so awful we can't talk with someone about it*" (Queensland Police Service, 2014, para. 3). In these programs, two core concepts are emphasized: *early warning signs* (recognising bodily signals that might indicate an unsafe situation) and *networks* (identifying and encouraging communication with trusted adults that the child can disclose to). Using these concepts protective behaviors programs focus on allowing children to generalize their use of safety skills (i.e. protective behaviours) to a range of unsafe interpersonal situations.

The present study extended upon a previous randomized controlled trial for an Australian protective behaviors program, the *Learn to be safe with Emmy and friends*™ program (see also *Learn to BE SAFE with Emmy*™; Dale et al., 2016). This program aims to improve children's interpersonal safety skills in situations ranging from peer bullying to CSA and is a program being currently administered within Australian primary (i.e., elementary) schools. In this past study, 245 Year 1 students from five schools in an urban area of Australia were randomly assigned to the program or waitlist, with measures administered at baseline and after the 5-week program. Findings indicated that the protective behaviors program was effective in increasing children's protective behaviors knowledge, as measured in child and parent/caregiver reports. It was also found that *Learn to be safe with Emmy and friends*™ participants increased in their intentions to perform protective behaviors, although this was not significantly greater than improvements observed on this measure for the waitlist condition. A 6-month follow-up was also conducted for children in the program condition and it was found that children significantly increased in both protective behaviors knowledge and intentions across this timeframe. Importantly no change in anxiety was observed amongst protective behaviors program participants.

In the present study, the effectiveness of *Learn to be safe with Emmy and friends*™ was examined in children and parents who were newly recruited for this study. The study design included a number of improvements upon previous evaluations in order to examine a greater range of program outcomes. In addition to a much larger sample, improvements made to this study that were not implemented in the previous Dale et al. (2016) evaluation include (i) randomization by school to prevent knowledge-sharing between conditions, (ii) 6-month follow-ups for the waitlist in addition to the program children to differentiate between maturational and program effects at follow-up, and (iii) new measures, including more proximal indicators of behavior change such as confidence in disclosing unsafe situations, ability to recognise unsafe situations and a direct behavioral skills measure of both disclosure and interpersonal safety behaviors.

The use of direct observation to evaluate behavior change in interpersonal safety skills (including withdrawal and disclosure) is a key extension in the current study. While direct observation is considered by many to be the best measure of behavior, evaluations for child protection education programs have typically relied on self-report or interview measures (Johnson, 2000; Miltenberger, 2008). The exception to this are programs using the Behavioral Skills Training (BST) approach, which have used simulated risk scenarios (e.g. gun safety, poison safety, stranger abduction) that give the illusion of danger while allowing standardized and safe observation of child responses (Himle, Miltenberger, Gatheridge, & Flessner, 2004; Miltenberger, 2008). Simulated scenarios have also been used in secret-keeping paradigms to directly assess behavioral skills involved in disclosure (Dunkerley & Dalenberg, 2000; Heyman, Loke, & Lee, 2016). As with BST evaluations, these studies involve the use of a simulated secret, however this secret is often non-safety related (i.e., a toy is broken) and as such may have limited generalizability to safety-related disclosures. In this study, methodologies from BST approaches and secret-keeping research were drawn upon to design and implement a behavioral skills test of children's use of protective behaviors. The present study is the first to use a simulated scenario to evaluate behavior change for a protective behaviors program and the first study since the 1980s to use this type of measure for a school-based child protection education program (Fryer, Kraizer, & Miyoshi, 1987a; Fryer, Kraizer, & Miyoshi, 1987b; Kraizer, Witte, & Fryer, 1989).

1.1. The current study and hypotheses

1.1.1. Impact evaluation

An impact evaluation was conducted, using a cluster-randomized controlled trial, following recommendations from the Consolidated Standards of Reporting Trials (CONSORT; Schulz, Altman, & Moher, 2010). It was predicted that following a protective behaviors program, children in the program condition would demonstrate a number of benefits when compared to children in the control condition. These benefits would include i) increased knowledge of protective behaviors, ii) increased parent-reported protective behaviors knowledge and skills, iii) improved ability to discriminate between safe and unsafe hypothetical situations, iv) greater intentions to use disclosure and help-seeking in hypothetical unsafe situations, v) greater confidence in disclosure and help-seeking in hypothetical unsafe situations, vi) improved interpersonal safety responses in a simulated unsafe scenario, vii) earlier disclosure of the presence of a confederate in a simulated unsafe scenario, and viii) greater numbers of children disclosing the presence of the confederate in a simulated unsafe scenario.

The impact evaluation also examined whether children experienced an increase in anxiety as a result of participation, with